



San Francisco Bay Regional Water Enhancement Program

Attachment 1

AUTHORIZATION AND ELIGIBILITY REQUIREMENTS

Association of Bay Area Governments
Proposition 84
Integrated Regional Water Management
Round 2, Implementation Grant Application



ATTACHMENT 1: AUTHORIZATION AND ELIGIBILITY REQUIREMENTS



SAN FRANCISCO BAY REGIONAL WATER ENHANCEMENT PROGRAM

1. Authorizing Documentation.....	1
2. Eligible Applicant Documentation	4
Local Agencies.....	4
Non-profit Organizations.....	5
3. Groundwater Management Plan Compliance	5
4. Urban Water Management Planning Act Compliance.....	6
5. AB 1420 and CWC §525 Compliance	7
6. Progress on Meeting Current IRWM Plan Standards.....	7
Table 1: Overview of Selected IRWM Plan Standards	8
Table 2: 2013 Bay Area IRWM Plan Update Goals, Objectives and Suggested Measures for Meeting Regional Goals	14
7. Project Consistency with an Adopted IRWM Plan.....	17
Table 3: Project List and Project Consistency with Adopted IRWM Plan	18
8. Documentation for Projects Adopted Post-Adoption of the Bay Area IRWMP.....	22
9. Compliance with Round 1 or Round 2 Proposition 84 Planning Grants	22

1. Authorizing Documentation

The Association of Bay Area Governments (ABAG) is pleased to serve as the applicant for the San Francisco Bay Regional Water Enhancement Program. The program is comprised of 19 projects involving 50 agencies and organizations around the nine-county San Francisco Bay Area. The ABAG Executive Board adopted Resolution 01-13 on January 17, 2013, authorizing ABAG to submit this application and execute an agreement with the State of California for an Integrated Regional Water Management Implementation Grant. A copy of the resolution is included on the next page.

**ASSOCIATION OF BAY AREA GOVERNMENTS
EXECUTIVE BOARD**

RESOLUTION NO. 2013 01-13

**AUTHORIZING THE EXECUTIVE DIRECTOR OR DESIGNEE, TO SUBMIT AN
APPLICATION AND EXECUTE AN AGREEMENT WITH THE CALIFORNIA
DEPARTMENT OF WATER RESOURCES ON BEHALF OF THE SAN FRANCISCO
BAY REGION IRWMP PROJECT PROPONENTS**

WHEREAS, the Association of Bay Area Governments (ABAG) is the home agency for the San Francisco Estuary Partnership SFEP, a coalition of resource agencies, non-profits, citizens, and scientists working to protect, restore, and enhance water quality and fish and wildlife habitat in and around the San Francisco Bay Delta Estuary, and

WHEREAS, ABAG is eligible to apply to the California Department of Water Resources to obtain an Integrated Regional Water Management Implementation Grant pursuant to the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Public Resource Code Section 75001 *et seq.*), and

WHEREAS, the ABAG Executive Board adopted the San Francisco Bay Integrated Regional Water Management Plan to encourage integrated regional strategies for management of water resources and to provide funding for implementation projects that support the plan by Resolution No. 11-06; and

WHEREAS, the Coordinating Committee (CC), the Regional Water Management Group for the Bay Area IRWMP selected ABAG/SFEP to be the Applicant for the next round of IRWMP Proposition 84 Round 2 funding and selected 20 regionally located projects for this application; and

WHEREAS, the total amount of state funding requested under the grant application is \$20,000,000 and the 25% match, based on the total cost of the proposal, will be met by project partners and SFEP from compatible grants or in-kind services.

**ASSOCIATION OF BAY AREA GOVERNMENTS
RESOLUTION NO. 01-13**

NOW THEREFORE BE IT RESOLVED, by the Executive Board of the Association of Bay Area Governments that application be made to the California Department of Water Resources to obtain an Integrated Regional Water Management Implementation Grant pursuant to the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Public Resource Code Section 75001 et/seq.), and to enter into an agreement to receive a grant for the San Francisco Bay IRWM Prop 84 Round 2 Implementation Projects Initiative. The Executive Director, or designee, of the Association of Bay Area Governments is hereby authorized and directed to prepare the necessary data, conduct investigations, file such application, and execute a grant agreement with the California Department of Water Resources.

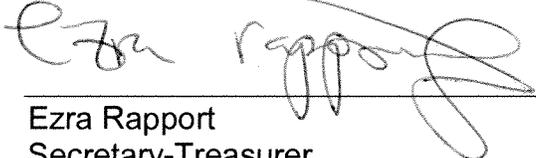
The foregoing was adopted by the Executive Board this 17th day of January, 2013.



Mark Luce
President

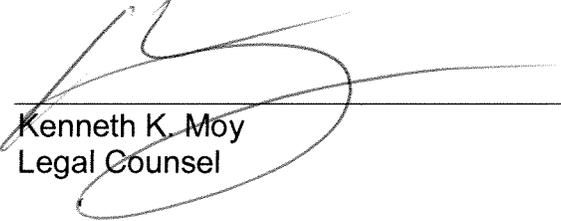
Certification of Executive Board Approval

I, the undersigned, the appointed and qualified Secretary-Treasurer of the Association of Bay Area Governments (Association), do hereby certify that the foregoing resolution was adopted by the Executive Board of the Association at a duly called meeting held on the 17th day of January, 2013.



Ezra Rapport
Secretary-Treasurer

Approved as To Legal Form



Kenneth K. Moy
Legal Counsel

2. Eligible Applicant Documentation

Local Agencies

Is the applicant a local agency as defined in Appendix B of the 2012 Guidelines? Please explain.

Yes. The Association of Bay Area Governments (ABAG), a local agency as defined in Appendix B of the 2012 Guidelines, is the applicant for the San Francisco Bay Regional Water Enhancement Program, Proposition 84, Round 2 Implementation Grant Application (Proposal) submittal.

What is the statutory or other legal authority under which the applicant was formed and is authorized to operate?

ABAG, a joint powers authority (JPA) formed under California Government Code Section 6500, is the comprehensive regional planning agency and Council of Governments for the San Francisco Bay Area. All nine counties and 101 cities and towns within the Bay Area are voluntary members, representing all of the region's population – more than seven million people. ABAG is governed by a 38-member Executive Board of local elected officials, and an elected official from each member city, town, and county serves as a delegate to ABAG's General Assembly. ABAG was the first Council of Governments formed in California (1961) and serves as a leader in the areas of land use, environmental stewardship, energy efficiency, hazard mitigation, and water resource protection. ABAG has launched and/or housed a variety of distinct innovative environmental programs, including: the San Francisco Bay Trail, the Bay Area Water Trail, the Bay Area Green Business Program, and San Francisco Estuary Partnership.

ABAG has legal authority to enter into agreements with the State of California. ABAG will enter into agreements with each of the project proponents participating in this proposal following execution of the grant agreement with the State of California Department of Water Resources (DWR) to ensure performance and tracking of funds.

Does the applicant have legal authority to enter into a grant agreement with the State of California?

Yes. On January 17, 2013, ABAG's Executive Board adopted Resolution 01-13, which gives the agency authority to submit this application and enter into a grant agreement with DWR.

Describe any legal agreements among partner agencies and/or organizations that ensure performance of the Proposal and tracking of funds.

The project proponents and ABAG will form an Oversight and Coordination Committee that will review project progress and quarterly reports, grant reimbursement and invoicing, and resolve outstanding matters.

An implementation agreement between ABAG and each project proponent will be established to ensure that matching funds are committed and grant requirements are satisfied. These agreements will include DWR-required provisions and will be consistent with the DWR grant agreement. Each of the agreements will have similar general conditions, but will also be tailored to the specific funding and grant requirements particular to each project. Generally, the implementation agreements would be controlling with respect to issues affecting a specific project, whereas the Oversight and Coordination Committee would review issues affecting implementation of the entire suite of 19 proposed projects.

ABAG will appoint a Grant Manager from San Francisco Estuary Partnership (SFEP). SFEP, a program of ABAG, is part of the National Estuary Program, developed under Section 320 of the

Clean Water Act with the specific mission of preserving, restoring and enhancing the ecological health of the estuary through implementation of the Comprehensive Conservation and Management Plan (CCMP). The current CCMP (2007) serves as the overarching watershed plan for the estuary. SFEP collaborates with resource agencies, non-profits, citizens, and scientists working to protect, restore, and enhance water quality and fish and wildlife habitat in and around the San Francisco Bay Delta Estuary. SFEP has more than fifteen years experience managing similar projects to improve the Estuary and brings its strong record of project and contract management to this effort. SFEP has successfully completed many multi-million dollar grants and projects funded by government agencies. SFEP has worked with many of the project proponents in past and on ongoing efforts. The Grant Manager will oversee the San Francisco Bay Regional Water Enhancement Program by coordinating with all project proponents to ensure completeness and timeliness in reporting and invoicing. The Grant Manager will also ensure that project progress occurs according to schedule and concomitant with progress reports and field visits.

Non-profit Organizations

Is the applicant a non-profit organization as defined in Appendix B of the 2012 Guidelines? Please explain.

No. ABAG is not a non-profit organization.

Does the applicant have legal authority to enter into a grant agreement with the State of California?

N/A

Describe any legal agreements among partner agencies and/or organizations that ensure performance of the Proposal and tracking of funds.

N/A

Include a copy of the certificate of incorporation for the organization.

N/A

3. Groundwater Management Plan Compliance

Identification of projects in the Proposal that involve any groundwater projects or other projects that directly affect groundwater levels or quality.

Two projects included in this Proposal would directly affect groundwater levels or quality:

- Project 8: Pescadero Water Supply and Sustainability Project (County of San Mateo)
- Project 11: Regional Groundwater Storage and Recovery Project Phase 1A – South Westside Basin, Northern San Mateo County (San Francisco Public Utilities Commission [SFPUC])

The status of applicable Groundwater Management Plan (GWMP) compliance for these projects is described below. GWMP Self Certifications from the County of San Mateo and SFPUC are included in Attachment 11.

Project 8: Pescadero Water Supply and Sustainability Project

The source water for San Mateo County Service Area 11 (CSA 11) is the Pigeon Point Formation

groundwater aquifer, located about one mile west of Pescadero. In addition to supplying the CSA 11 water system, the Pigeon Point Formation is primarily used for agricultural and small domestic water supply. The County of San Mateo has completed two water supply assessments for the CSA 11 water system: the *Assessment of Source Water for the Pescadero Water System – CSA 11*, Todd Engineers, March 2002 and the *Technical Memorandum #1: Water Supply Reliability*, HydroScience Engineers, March 2013. These reports are included in this application (Attachment 1, file 2of2). The County of San Mateo consents to be subjected to an existing GWMP, basin-wide management plan, or other IRWM program or plan that meets the requirements of California Water code (CWC) §10753.7.

Project 11: Regional Groundwater Storage and Recovery Project Phase 1A – South Westside Basin, Northern San Mateo County

The South Westside Basin is located in northern San Mateo County. The South Westside Basin GWMP was prepared by a group of agencies: SFPUC, City of Daly City, City of San Bruno, and the CalWater Service Company in July 2012 (City of San Bruno was the lead agency). The GWMP was developed and is being implemented according to California Water Code (CWC) §10753.7. Project 11 is identified in the South Westside Basin GWMP. Relevant sections of the GWMP are included in Attachment 1, file 2of2.

4. Urban Water Management Planning Act Compliance

The San Francisco Bay Regional Water Enhancement Program Proposition 84, Round 2 Implementation Grant Proposal includes eight high-priority projects sponsored by urban water suppliers. The following is a list of project proponents that are urban water suppliers. Each of these urban water suppliers has received acknowledgement from DWR that their Urban Water Management Plans (UWMPs) are complete. An asterisk indicates agencies that are part of a single project (Project 1) of this Proposal.

- Alameda County Water District*
- City of Napa*
- City of Petaluma
- City of Redwood
- City of San José
- Contra Costa Water District
- East Bay Municipal Utilities District
- Marin Municipal Water District
- San Francisco Public Utilities Commission
- Santa Clara Valley Water District*
- Sonoma County Water Agency*
- Zone 7 Water Agency*

5. AB 1420 and CWC §525 Compliance

Attachment 11 includes Assembly Bill (AB) 1420 and Water Meter compliance (CWC §525 *et seq.*) self-certification documentation and original signed hard copies. Note that some original signed copies were submitted directly to DWR in January 2013.

6. Progress on Meeting Current IRWM Plan Standards

The San Francisco Bay Area is currently in the process of updating its IRWM Plan in accordance with the standards contained in Appendix C of the 2012 Guidelines. The region's eligibility for grant funding is being established using an IRWM Plan adopted prior to September 30, 2008 (so it is not being submitted). **Table 1**, as required in the PSP, illustrates the Bay Area IRWM Plan's progress on meeting the current IRWM Plan standards.

Table 1: Overview of Selected IRWM Plan Standards

Standard	Specific Standard Questions	Status/Response
Governance	<i>Will the governance structure need to be altered in the Updated IRWM Plan in order to ensure that balanced access and opportunity for participation in the IRWM effort is provided?</i>	No. The Bay Area IRWM Plan currently includes governance by San Francisco Bay Area water, wastewater, flood protection, and stormwater management agencies; cities and counties; watershed management interests; planning agencies and organizations; and non-governmental organizations. They voluntarily participate in the Coordinating Committee (CC), which is the Regional Water Management Group (RWMG) for the 2006 Bay Area IRWM Plan and its 2013 update. Participation in the CC and its monthly meetings is open to anyone and the group operates on a consensus basis. Additional agencies and organizations are encouraged to learn about the process, provide feedback on the 2013 Plan Update’s chapters, and identify and submit projects to be included in the Bay Area IRWM Plan so that the projects can compete for State IRWM grants. Agencies and organizations dealing with land use and climate change are particularly encouraged to participate, as water resource management is increasingly related to these topics.
Region Description	<i>Has the regional description changed significantly from the current IRWM Plan?</i>	Yes. The 2006 Bay Area IRWM Plan generally represented the watershed interfluvium for San Francisco Bay-draining surface flows and runoff. The 2013 Plan Update is coterminous with the geographic area delineated in the RAP (Region Acceptance Process) document, which was approved by DWR. This area is coterminous with The SWRCB Region 2 and DWR's Bay Area Funding Area. The 2013 Plan Update recognizes that the San Francisco Bay Area is a complex network of watersheds, marshes, rivers, creeks, reservoirs, and bays predominantly draining into the San Francisco Bay and Pacific Ocean. The largest bodies of water in the Bay Area are San Francisco Bay, San Pablo Bay, and Suisun Bay. San Francisco Bay is one of the largest bays in the world. Many inlets on the edges of the three major bays are designated as bays in their own right, such as Richardson Bay, San Rafael Bay, Grizzly Bay, and San Leandro Bay. Nearby bays along the Pacific Coast include Bodega Bay, Tomales Bay, Drakes Bay, Bolinas Bay, and Half Moon Bay. The largest rivers are the Sacramento and San Joaquin Rivers, which drain into the Sacramento–San Joaquin Delta and thence to Suisun Bay. Other major rivers of the North Bay are the Napa River, the Petaluma River, the Gualala River, and the Russian River; the former two drain into San Pablo Bay, the latter two into the Pacific Ocean. In the South Bay, the Guadalupe River drains into San Francisco Bay near Alviso.

Objectives	<i>Will your objectives change from those in the current IRWM Plan? If so, how?</i>	Yes. The 2013 Plan Update will reduce the number of objectives from 68 to around 35 by deleting objectives if they did not meet criteria or can be merged with other objectives, or if they were unclear. New objectives were also developed for Integration and Climate Change based on new DWR Guidelines. Table 2 shows the consolidated and new Goals, Objectives, and Suggested Measures for Meeting Regional Goals from the 2013 Plan Update. Note that new objectives were also added to prioritize integration and climate change. These goals, objectives and suggested measures were used to rank projects for the 2013 Plan Update and to select the projects that comprise the San Francisco Bay Regional Water Enhancement Program (this Proposal).
Resource Management Strategies	<i>Will the Updated IRWM Plan consider the resource management strategies from the California Water Plan, Update 2009?</i>	Yes. The 2013 Bay Area IRWM Plan Update will consider all of the resource management strategies laid out in the 2009 California Water Plan Update. This chapter of the 2013 Plan Update is currently being written.
Integration	<i>Will the process used in the Updated IRWM Plan allow, encourage, and actively pursue integration in both the planning process and project formulation and implementation?</i>	<p>Yes. The updated Bay Area IRWM Plan will continue to take an integrated approach to water resources management with the knowledge that integrating multiple strategies yields benefits and efficiencies greater than those achieved through implementation of a single strategy alone. The Bay Area has a long history of regional projects and programs that promote efficient use of organizational resources to achieve maximum benefit in water resources management. Coalitions and associations in place throughout the region encourage cooperation and information- and technology-sharing. Furthermore, integration is incorporated into project formulation by grouping projects and programs with similar geographic and spatial considerations, when possible. For example, coordinated implementation of projects upstream and downstream within a watershed can provide economies of scale in project planning by reducing redundancies. The CC has added specific objectives to the plan with regard to integration:</p> <ul style="list-style-type: none"> ▪ Work with local land, water, wastewater, and stormwater agencies; project proponents; and other stakeholders to develop policies, ordinances, and programs that promote IRWM goals and to determine areas of integration among projects; ▪ Encourage implementation of integrated, multi-benefit projects; and ▪ Identify and promote integrated flood management projects to protect vulnerable areas. <p>In addition, the CC has designed a project-ranking process that heavily emphasizes integration;</p>

		projects that achieve multiple benefits (address different goals/functional areas) will score significantly higher than single-purpose projects. In the outreach process, before project submittals for the 2013 Plan Update, the sub-regions will emphasize “integrated/multi-benefit projects and collaboration.” The concept of “integration” also was emphasized in this Proposition 84, Round 2 Implementation Grant Application submittal screening process as a conceptual option, which influenced the final project selection.
Project Review Process	<i>Will the project review process consider climate change vulnerabilities and greenhouse gas emissions (for both construction and operation)?</i>	Yes. The Bay Area IRWM CC is evaluating each project’s contribution to adaptation to climate change and to the reduction of greenhouse gases as criteria for ranking proposed projects. The 2013 Draft Plan Update Goal 1: <i>Promote Environmental, Economic and Social Sustainability</i> , addresses three climate change objectives: <ul style="list-style-type: none"> ▪ 1.3 – Plan for and adapt to more frequent extreme climate events; ▪ 1.5 – Plan for and adapt to sea level rise; and ▪ 1.9 – Support data gathering for climate change vulnerabilities. Because the number of objectives used by the CC has decreased, the overall weighting of climate change as an evaluation factor has increased.
Technical Analysis	<i>Have any data gaps been identified and how will the Updated IRWM Plan help fill the gaps?</i>	Yes. The 2006 Bay Area IRWM Plan identifies data gaps. The 2013 Plan Update process anticipates discussion of the 2006-identified gaps, progress made to fill those gaps, an analysis of new data needs/gaps and available resources to meet those needs/fill gaps.
Relation to Local Water Use Planning	<i>Will changes to the existing IRWM Plan be needed in order to improve coordination with local water use planning efforts?</i>	No. The existing Bay Area IRWM Plan coordinates with local water-use planning efforts and builds on General Plans and other documents developed by local agencies. The Bay Area IRWM Plan includes local agencies and municipalities that have assembled local information to establish a baseline understanding of water resources across the region. The 2006 Bay Area IWRM Plan included compilation of goals and objectives from a sampling of approximately 40 local planning documents, including watershed management and planning studies. These documents provided an understanding of local and regional issues, challenges, goals, and objectives, as well as the context for a vast inventory of watershed and habitat management projects and programs.
Relation to Local Land Use Planning	<i>Will changes to the existing IRWM Plan be needed in order to improve coordination</i>	No. The existing Bay Area IRWM Plan was developed with the input of local governments through a series of meetings in each county within the Bay Area region. In recognition of the important relationship between local and regional planning, ABAG played an integral role in 2006 Bay Area

	<i>with local land use planning efforts?</i>	IRWM Plan development. Serving as the council of governments and comprehensive planning agency for the San Francisco Bay Area region, ABAG’s members include all nine Bay Area counties and 99 of the 101 Bay Area cities, thus representing nearly all of the region’s population. In addition, ABAG committees also include representatives from the San Francisco Bay Conservation and Development Commission, Metropolitan Transportation Commission, Bay Area Economic Forum, San Francisco Estuary Partnership, and others. ABAG continues to play a critical role in the 2013 Plan Update development, guiding Plan direction through CC membership and reviewing chapters for consistency with local plans and programs.
Stakeholder Involvement	<i>Will changes or improvements to the stakeholder involvement process be needed to ensure effective stakeholder participation?</i>	<p>Ensuring an open, transparent process of plan development and project prioritization has been essential to the Bay Area IRWM Plan since its early development; however, this is an area where there has been ongoing and continual improvement. Participation in the Bay Area IRWM Plan CC has always been open to all, whether or not one has an official capacity related to water resources management. The planning grant, which is funding the 2013 Plan update, reserves a portion of the funds for stakeholder involvement. The public has been invited to participate in discussions at monthly CC meetings, receive email updates, submit comments on chapters as they are released for public review, collaborate with agencies and organizations to submit water resources project proposals, and attend special outreach meetings on the process.</p> <p>Additional efforts have been made to engage disadvantaged communities in the 2013 Plan Update: Applying 2010 U.S. Census data to geographical information system (GIS) maps, a stakeholder engagement team has mapped Bay Area disadvantaged communities (as defined by DWR). Working with organizations that represent people in vulnerable, disadvantaged communities, the plan update team is seeking to identify significant current and potential water resource problems. (This application includes one project that directly addresses critical water supply needs for a disadvantaged community [DAC] and several other projects located in or adjacent to DACs that will provide additional water supply during drought conditions and increase educational and recreational opportunities for DACs and others.)</p> <p>Each of the Bay Area's four subregions has at least one coordinator and holds meetings and/or conference calls open to all. During the development of the 2013 Plan Update, the CC distribution list was increased from approximately 150 to 250 contacts by the stakeholder involvement team. This was accomplished by outreach to the subregional and functional area groups, to DACs, and to the general public. The team continues to add contacts as the outreach progresses. It also makes</p>

		<p>sure all the contacts receive regular updates so they know how they can review draft documents, attend meetings, submit projects, and stay involved.</p> <p>Stakeholder involvement during Plan implementation is centered on outreach activities undertaken by the individual responsible agencies during project planning and implementation. As appropriate per the public review progress under CEQA Guidelines, each of the Bay Area IRWM Plan projects conducts a stakeholder participation process as part of project implementation. This ensures ongoing communication and stakeholder involvement throughout the implementation of the Bay Area IRWM Plan. In addition, the project website is maintained for ongoing project communications and updates about project monitoring and Plan maintenance.</p>
Coordination	<p><i>Has the RWMG identified a need for changes/ improvements to the ongoing coordination efforts?</i></p>	<p>No. Careful coordination with the participating entities, local agencies, stakeholders, DACs, and regulatory agencies currently ensures successful implementation of the Bay Area IRWM Plan. By establishing a responsible agency for each Bay Area project, potential conflicts in areas where multiple participating entities have jurisdiction are minimized or avoided. Furthermore, to adequately plan and implement the integrated water management strategies recommended by the Bay Area IRWM Plan, it has been important to have the involvement and support of the appropriate State and Federal agencies. Consequently, State and Federal agencies have participated in the development of the Bay Area IRWM Plan during every stage of the process. Their role during Plan development has included participating in stakeholder workshops, reviewing draft materials, and participating in CC meetings. State and Federal agencies with regulatory authority are further involved during Plan implementation via the permitting process. In September 2011, the Bay Area Flood Protection Agencies Association (BAFPAA), a new consortium of Bay Area water agencies, was created by a memorandum of understanding. Representatives of BAFPAA are on the IRWM CC and help coordinate between BAFPAA and IRWMP. The Coordinator of the Bay Area Watershed Network (BAWN), a position currently funded in part by IRWM Prop 84 Round 1 funding, also participates in CC meetings. Two other Bay Area water agency coordinating groups have representatives on the IRWMP CC: the Bay Area Clean Water Agencies, a joint powers agency of wastewater treatment agencies in the San Francisco Bay Area, and the Bay Area Water Agencies Coalition, an association of water supply agencies from around the bay.</p>

Climate Change	<p><i>Will the Updated IRWM Plan contain: (1) a climate change vulnerability assessment of the IRWM region that is at least equivalent to the qualitative checklist assessment in the Climate Change Handbook for Regional Water Planning; (2) a list of prioritized vulnerabilities derived from the vulnerability assessment and the IRWM’s decision-making process; and (3) a plan, program, or methodology for further data gathering/analyzing of the prioritized vulnerabilities?</i></p>	<p>Yes. New to the 2013 Plan Update will be a chapter that identifies how Bay Area water resources are vulnerable to the impacts of climate change. Awareness of potential climate change impacts can help communities plan for and mitigate expected water changes and threats. This new chapter is intended to make water resources management and land use planners, as well as policy makers, throughout the Bay Area aware of climate change impacts on water resources so they can evaluate, prioritize, and incorporate policies and strategies that anticipate, plan for, and mitigate climate change. Preliminary evidence suggests that sea level rise may have its greatest impact in low-lying, flood-prone areas that ring the Bay.</p> <p>The draft 2013 Plan Update identifies a list of prioritized vulnerabilities, suggests adaptation measures to address the identified climate change impacts and recommends next steps to facilitate the development of adaptation strategies. Significant infrastructure associated with the treatment and conveyance of waste water effluent, the transmission of electricity and transportation links are particularly vulnerable as they take advantage of the corridors of low-lying flat land of the Baylands which are now part of the flood hazard zone. There are significant urban areas in the counties of Alameda, Marin, San Mateo and Santa Clara that are particularly at risk from sea level rise, notably San Rafael, Corte Madera, Foster City, Redwood City and East Palo Alto, where not only residential areas but also significant businesses are threatened. Many of the cities have creeks and stormwater channels running through them. As the Bay rises the head of the tide in these channels will migrate, reducing their flow capacity and backing up water increasing the risk of flooding inland. Flooding impacts from the Bay and from inland drainage systems are associated with extreme events that will increase in frequency and intensity much sooner than the general rise in mean sea level. It is likely that existing levees will have to be raised which, together with increasing Bay levels, means that the existing gravity system will have to be increasingly pumped. Channel erosion, associated with flood events and landslides, is likely to increase resulting in the need for more dredging to maintain conveyance. Adaptation strategies need to take account of both providing increased flood protection but also accommodating a dynamic natural shoreline and ecosystem-based adaption offers economic and ecological advantages that need to be explored.</p>
-----------------------	---	--

Table 2: 2013 Bay Area IRWM Plan Update Goals, Objectives and Suggested Measures for Meeting Regional Goals

2013 IRWM Plan Update Goals and Objectives		Suggested Measures for Meeting Regional Goals
Goal 1: Promote Environmental, Economic and Social Sustainability		
1.1	Work with local land, water, wastewater and stormwater agencies, project proponents and other stakeholders to develop policies, ordinances and programs that promote IRWM goals, and to determine areas of integration among projects	Number of local policies, ordinances, incentives and other programs that promote integrated planning and development of LID projects; number of integrated projects .
1.2	Encourage implementation of integrated, multi-benefit projects	Examples of collaboration between government and regulatory agencies, project proponents and stakeholders; number of integrated projects; number of benefits/partners/FAs.
1.3	Plan for and adapt to more frequent extreme climate events	Number of projects that include climate change planning efforts; number of local efforts; number of projects that include climate adaptation strategies.
1.4	Reduce energy use and/or use renewable resources where appropriate	Megawatt or kilowatt reduction in energy use; megawatts of renewable power sources. Number of projects with an energy reduction component.
1.5	Plan for and adapt to sea level rise	Number of projects that plan for and adapt to sea level rise, including keeping important infrastructure out of hazard zones; considering range of sea level projections when evaluating proposed water management projects practice and promote integrated flood management; AF water storage and conjunctive management of surface and groundwater resources; water resources management strategies that restore and enhance ecosystem services; avoiding significant new development in areas that cannot be adequately protected from flooding or erosion.
1.6	Secure adequate support, funding and partnerships to effectively implement plan	Process to successfully respond to funding opportunities; dollars of grant funding; long-term project viability; number of projects implemented under new partnerships.
1.7	Avoid disproportionate impacts to disadvantaged communities	Community support for local projects; amount reduction in risk to DACs.
1.8	Promote community education, involvement and stewardship	Number of informational brochures, workshops, educational and technical assistance events that address water reliability, watershed health, flood risks, flood protection and other IRWM goals; educational curricula for K-12.
1.9	Support data management for climate change vulnerabilities	Number of projects that provide climate change vulnerability data; number of monitoring stations; number of links and items in Bay Area IRWMP website climate change library (in development at this time); climate change vulnerability assessments completed.
1.10	Enhance monitoring network and information sharing to support proper management of watersheds	Number of monitoring stations, number of monitoring plans; number of watersheds with trends measured using indicators; number of links and material on BAWN website (in development at this time).

2013 IRWM Plan Update Goals and Objectives		Suggested Measures for Meeting Regional Goals
1.11	Minimize health impacts associated with polluted water	Compliance with all applicable water quality standards; number of customer complaints.
1.12	Protect cultural resources	Project-specific cultural resources survey and monitoring results; acres of culturally valuable area and/or resource acquired or preserved through conservation easements or other means; number of projects implemented with cultural resources surveys/monitoring.
1.13	Increase water resources related recreational opportunities	Miles of trails, acres of parklands and/or access added; number of amenities, visitor days added; miles of upgrades to trails and acres of upgrades to parklands.
Goal 2: Improve water supply reliability and quality		
2.1	Provide adequate water supplies to meet demands	Reliability of supplies of appropriate quality
2.2	Provide clean, safe, reliable drinking water	Compliance with drinking water standards; acceptable levels of constituents of concern in drinking water at point of delivery
2.3	Minimize vulnerability of infrastructure to catastrophes and security breaches	Number of vulnerability assessments; number of efforts to address vulnerabilities
2.4	Implement water use efficiency to meet or exceed state and federal requirements	Progress toward SBX7-7 goals, number of water conservation measures adopted; annual per capita water use; acre feet of annual savings
2.5	Increase recycled water use	AFY of potable water use replaced by non-potable supply; AFY recycled water delivered to customers
2.6	Expand water storage and conjunctive management of surface and groundwater	AF of water storage; number of conjunctive management projects developed; AFY of reduced water dependency on the Delta; AFY of reduced dependency on imported water supplies
2.7	Provide for groundwater recharge while protecting groundwater resources from overdraft	AFY artificial groundwater recharge
2.8	Protection of groundwater resources from contamination	Migration of contaminant plumes; recharge area protection; degree to which groundwater quality meets basin plan objectives; monitoring of groundwater quality trends for nitrate concentrations and salinity; number of adopted groundwater management plans; number of SNMP activities implemented according to plan
Goal 3: Protect and improve watershed health and function and Bay water quality		
3.1	Protect, restore, and rehabilitate watershed and bay processes	Miles of natural streams restored and/or rehabilitated; acres of wetlands protected and/or restored; acres of fee simple or conservation easements acquired.
3.2	Maintain health of watershed vegetation, land cover, natural stream buffers and floodplains, to improve filtration of point and nonpoint source pollutants	Acres of enhanced or reconnected floodplains; acres of created treatment wetlands; acres of uplands enhanced through best management practices, revegetation, sediment reduction or other measures; number of Low-Impact Development stormwater projects
3.3	Minimize point-source and non-point-source pollution	Implementation of delivery reduction practices; number of LID projects that store and infiltrate stormwater runoff; AFY stormwater capture; progress toward meeting established water quality objectives, TMDLs and NPDES; acreage managed with approved BMP techniques.

2013 IRWM Plan Update Goals and Objectives		Suggested Measures for Meeting Regional Goals
3.4	Control excessive erosion and manage sedimentation	Progress toward meeting established water quality objectives, sediment TMDLs and NPDES; number of sediment management or biotechnical bank stabilization projects; acres of uplands enhanced through best management practices, revegetation, sediment reduction or other measures
3.5	Improve floodplain connectivity	Acres of floodplain reconnected and preserved in 100-year floodplains; number of projects that reconnect former floodplains or create floodplain enhancements
3.6	Improve infiltration capacity	Miles of natural streams restored and/or rehabilitated; acres of uplands enhanced through best management practices, revegetation, runoff reduction or other measures; miles of streams de-channelized; LID projects implemented that include bioswales to increase perviousness; AFY stormwater capture; acres of created or enhanced floodplains
3.7	Control pollutants of concern	Progress toward meeting established water quality objectives, TMDLs and NPDES; number of projects that benefit water quality of 303(d) listed stream parameters
Goal 4: Improve Regional Flood Management		
4.1	Manage floodplains to reduce flood damages to homes, businesses, schools, and transportation	Annual flood damages in dollars; frequency and extent of flooding; number of innovative flood management projects; AFY annual flood flows
4.2	Achieve effective floodplain management that incorporates land use planning and minimizes risks to health, safety and property by encouraging wise use and management of flood-prone areas	Policies and programs that encourage LID in new and rehabilitated development
4.3	Identify and promote integrated flood management projects to protect vulnerable areas	Number of integrated flood management projects including elements such as sediment management, fisheries enhancement, natural channel function improvement, riparian habitat enhancement, ground water recharge, etc.
Goal 5: Create, protect, enhance, and maintain environmental resources and habitats		
5.1	Protect, restore, and rehabilitate habitat for species protection	Acres of habitat protected, restored and/or rehabilitated for species protection; number of at-risk species addressed; miles of wildlife corridors protected; acres of upland, riparian and bayland habitat restored and/or protected
5.2	Enhance wildlife populations and biodiversity (species richness)	Number of species delisted; number of species addressed; population numbers targeted and/or improved; acres of expanded and/or enhanced habitat; number of species re-introduced
5.3	Protect and recover fisheries (natural habitat and harvesting)	Number of species delisted; number of listed species addressed; creek miles of increased spawning habitat for fish; number of projects that improve passage
5.4	Reduce geographic extent and spread of pests and invasive species	Acres of invasive species cover; invasive species numbers and/or targets reached; number of projects that map or monitor invasive species; acres of reduced impact from presence of pests and invasive species

7. Project Consistency with an Adopted IRWM Plan

The Bay Area IRWM Plan, adopted in December 2006, integrates long-term planning and high-quality project implementation in an adaptive management framework — fostering coordination and communication among the diverse stakeholders in the region. Focus areas for the Bay Area IRWM Plan include water supply and water quality, wastewater and recycled water, flood protection and stormwater management, as well as watershed management, habitat protection and restoration. The overall objectives of the Bay Area IRWM Plan are to develop coordination, collaboration, and communication among Bay Area agencies responsible for water and habitat-related issues, achieve greater efficiencies, and build public support for vital projects.

The projects included in this proposal are consistent with the Bay Area IRWM Plan adopted on December 2006. As noted in **Table 3** below, the projects contained in this proposal were either part of the original IRWM Plan adopted in December 2006, or added to the 2006 IRWM Plan at the March 28, 2011 or the January 28, 2013 meeting of the CC. Minutes from the March 28, 2011, December 17, 2012, and January 28, 2013 meetings are included in Attachment 1, file 2of2. On March 28, 2011, the 2006 Bay Area IRWM Plan Appendix G was updated to add 13 new flood and stormwater management projects into the IRWM Plan. On December 17, 2012, the CC approved a suite of high-scoring projects that comprise this application for IRWM Program Prop 84 Round 2 Funding, which are shown in Table 3 below. On January 28, 2013, the 2006 Bay Area IRWM Plan Appendix G was updated again: all project proponents in the 2006 Bay Area IRWM Plan were given an opportunity to update project descriptions or drop from the list of projects. Additionally, new projects were added to the list that were not included in the Plan or earlier versions of Appendix G.

Table 3: Project List and Project Consistency with Adopted IRWM Plan

Project ID#	Project Title	Project Summary/Consistency with Adopted Plan	Included in 2006 IRWM Plan	Added to IRWM Plan January 28, 2013
1	Bay Area Regional Conservation and Education Program	The proposed Regional Water Conservation Program will leverage and expand the implementation of existing water conservation education and consumer incentive programs and build on regional water conservation initiatives. This collaborative effort will also include a series of short educational videos on landscape and irrigation maintenance and repair for home gardeners and commercial customers.	●	●
2	East Bayshore Recycled Water Project Phase 1A (Emeryville)	The East Bayshore Recycled Water Project, a multi-phase project, will provide up to 2.5 million gallons per day (mgd) of recycled water to customers within the Cities of Alameda, Albany, Berkeley, Emeryville, and Oakland. Phase 1A of the project will provide 0.5 mgd to customers in the Cities of Albany, Berkeley, Emeryville, and portions of Oakland. This project will also include the necessary treatment improvements, which could be a combination of centralized and/or onsite treatment to address corrosion, aesthetic, or water quality issues for indoor application of recycled water.		●
3	Lagunitas Creek Watershed Sediment Reduction and Management Project	This project will construct sediment reduction projects to reduce fine sediment loading into Lagunitas Creek and its tributary streams, improving water quality and streambed habitat for the benefit of coho salmon and steelhead trout populations. The project will include work along the Cross Marin Trail in order to safeguard a major public water-supply transmission line and to restore recreational access within National Park Service and California State Parks land.		●
4	Marin/Sonoma Conserving Our Watersheds: Agricultural BMP Projects	This multi-agency partnership will implement 15 successful voluntary environmental improvements, representing 20–30 Best Management Practices (BMPs), on agricultural lands in Marin and Sonoma Counties through the Conserving Our Watersheds program. The program goal will be implemented by providing ranchers with the following: 1) ranch/project planning and permitting assistance; 2) technical/engineering expertise; 3) construction contractors; and 4) maintenance and monitoring assistance to control erosion, improve riparian habitat, reduce nutrient and pathogen loading, and stabilize eroding stream channels on agricultural lands.		●
5	Napa Milliken Creek Flood Damage Reduction and Fish Passage Barrier Removal	This project involves three integrated elements: 1) removal of the dam and restoration of the stream, 2) construction of a flood bypass/weir to ensure a flood detention area does not overflow into neighboring homes, and 3) minor grading/ landscape improvements to ensure existing low-lying properties receive a level of protection comparable to their neighbors.		●
6	North Bay Water Reuse Program – Sonoma Valley CSD 5th Street East/McGill Road Recycled Water Project	The North Bay Water Reuse Program (NBWRP) is a cooperative program in the San Pablo Bay region that supports sustainability and environmental enhancement by expanding the use of recycled water. The purpose of the NBWRP is to provide recycled water for agricultural, urban, and environmental uses, thereby reducing reliance on local and imported surface water and groundwater and reducing the amount of treated effluent releases to North San Pablo Bay. The Sonoma Valley Recycled Water Project, a sub-project of NBWRP, involves extending existing recycled water pipelines from the Sonoma Valley County Sanitation District Wastewater Treatment Plant in order to deliver recycled water to increased numbers of property owners.		●

Project ID#	Project Title	Project Summary/Consistency with Adopted Plan	Included in 2006 IRWM Plan	Added to IRWM Plan January 28, 2013
7	Oakland Sausal Creek Restoration Project	This project involves the restoration of 754 linear feet of Sausal Creek in Dimond Park, including 180 feet of culvert daylighting. Restoration activities include channel function, streambank stabilization, erosion prevention, native plant restoration, native trout habitat improvement, and interpretive site features.		●
8	Pescadero Water Supply and Sustainability Project	A new municipal water well and storage tank would be constructed for the purposes of extending the life of the drinking water supply and providing adequate emergency response for the County Service Area 11 (CSA 11) Water System, which serves approximately 100 households within the Town of Pescadero, in rural unincorporated San Mateo County. A water conservation program would be initiated to reduce water use by residents within the Pescadero community served by CSA 11.		●
9	Petaluma Flood Reduction, Water & Habitat Quality, and Recreation Project for Capri Creek	The Capri Creek Project is part of the Petaluma Flood Impact Reduction, Water & Habitat Quality, and Recreation Project. The Capri Creek Project addresses specific needs for out-of-bank flow and base flood elevation reduction and associated reduction of impacts on residential units now subject to flood damage, water quality improvement through sedimentation removal, groundwater recharge opportunity by slowing the water and allowing it to percolate within the newly created flood terrace, habitat enhancement by recreating a riparian corridor where a graded swale now exists, and recreational/educational opportunities to allow the neighborhood to readopt a more natural corridor as a community amenity rather than as a maintenance burden.		●
10	Redwood City Bayfront Canal and Atherton Channel Flood Improvement and Habitat Restoration Project	The City of Redwood City is partnering with the Coastal Conservancy to integrate the Salt Pond Restoration Project with the Bayfront Canal/Atherton Channel Flood Improvement Project. This integrated project will direct stormwater to Ponds S5 and R5 to enhance the habitat as well as serve as stormwater detention for the Bayfront Canal and Atherton Channel drainage areas.		●
11	Regional Groundwater Storage and Recovery Project Phase 1A - South Westside Basin, Northern San Mateo County	This project proposes to develop a regional conjunctive use project in the South Westside Basin for use during drought conditions, in partnership with the Cities of Daly City and San Bruno, and the California Water Service Company. The project includes construction of up to 16 groundwater wells and well stations with a total capacity of 7.2 mgd. Phase 1A, part of this Proposal, includes construction of 5 of the 16 groundwater wells.	●	●
12	Richmond Breuner Marsh Restoration Project	East Bay Regional Park District proposes to create, restore, enhance and protect 150 acres of crucial habitat in Breuner Marsh at Point Pinole Regional Shoreline Park in the City of Richmond on the San Francisco Bay shoreline, Contra Costa County. The goal of this wetland restoration project is to provide long-term, self-sustaining tidal wetlands, seasonal wetlands, and coastal prairie to create valuable habitat for special-status species and for public access for compatible passive recreation and public education.		●

Project ID#	Project Title	Project Summary/Consistency with Adopted Plan	Included in 2006 IRWM Plan	Added to IRWM Plan January 28, 2013
13	Roseview Heights Infrastructure Upgrades for Water Supply and Quality Improvement, Santa Clara County	This project proposes to improve water supply, water quality, and fire suppression capability by replacing and upgrading aging water tanks and water mains, and adding fire hydrants.		●
14	San Francisco Bay Climate Change Pilot Projects Combining Ecosystem Adaptation, Flood Risk Management and Wastewater Effluent Polishing	ABAG proposes to create a regional partnership of agencies that would redesign existing wastewater treatment operations by integrating natural bay ecosystem processes into a new water treatment paradigm. The Oro Loma seepage ecotone slope will be the first Bay Area project to replicate an engineered equivalent of moist grassland/ bayland ecotone of broad, flat alluvial fans that were historically graded into the tidal marshes of most of South San Francisco Bay. This demonstration project will inform climate change adaptation strategies around the bay.		●
15	San Francisco International Airport Reclaimed Water Facility	The proposed project will use trickling filters, secondary clarifiers, and microfiltration to treat a combination of industrial waste process water, sanitary sewer, and stormwater to Title 22 standards for non-potable reuse in airport terminals.		●
16	San José Green Streets & Alleys Demonstration Projects	The San José Green Streets and Alleys Demonstration Projects will construct Low Impact Development (LID) improvements on urban streets and alleys in San José. Each project will include measurement of the pollutant removal and flow reduction performance of its specific LID features by conducting pre- and post-project water monitoring. The projects will demonstrate how an LID retrofit project can directly improve water quality and also enhance neighborhood livability.		●
17	San Pablo Rheem Creek Wetlands Restoration Project	This project proposes to create seasonal wetlands on a nine-acre parcel adjacent to Rheem Creek, Breuner Marsh, within the City of Richmond. Seasonal wetlands will support mitigation for the Shortcut Pipeline Improvement Project (SCPL). Repairs to the SCPL are critical for service to the City of Martinez, Shell and Tesoro oil refineries.	●	●
18	St. Helena Upper York Creek Dam Removal and Ecosystem Restoration Project	The City of St. Helena proposes to remove the Upper York Creek Dam and restore a former reservoir area to a natural creek channel and riparian corridor, resulting in habitat, beneficial coarse sediment transport, and steelhead fish passage conditions needed for rearing and spawning.		●

Project ID#	Project Title	Project Summary/Consistency with Adopted Plan	Included in 2006 IRWM Plan	Added to IRWM Plan January 28, 2013
19	Students and Teachers Restoring a Watershed (STRAW) Project – North and East Bay Watersheds	The STRAW Project coordinates and sustains a network of committed teachers, students, restoration specialists, landowners and managers, and other community members to implement a minimum of 40 planting days annually on “shovel-ready” habitat restoration projects in most watersheds within the North Bay region of the Bay Area IRWM Plan area. STRAW supports teachers from the North Bay, East Bay, and West Bay BAIRWMP regions in conducting project-based environmental education curriculum. STRAW features professionally designed and implemented habitat restoration projects, integrated with an innovative and time-tested education program that provides water quality benefits, habitat improvement, and positive impacts on economic, social, and environmental sustainability.		

8. Documentation for Projects Adopted Post-Adoption of the Bay Area IRWMP

With consensus from the CC, the new regional projects were approved for addition to the IRWM Plan on January 28, 2013. Documentation for new projects added to the IRWM Plan, approved on January 28, 2013, is included in Attachment 1, file 2of2. This document is an appendix added to the adopted 2006 IRWM Plan. Meeting minutes from the Bay Area IRWM CC meetings authorizing the addition of these projects are included, as well.

9. Compliance with Round 1 or Round 2 Proposition 84 Planning Grants

One project proponent in this Proposal, the Marin Municipal Water District (MMWD), was a recipient of a Proposition 84, Round 1 Planning Grant. MMWD received an award of \$842,556 for the San Francisco Bay Area IRWM Plan Update. The project is on schedule and has submitted quarterly project reports on time.