

### Proposal Full View

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**Applicant Information**

Organization Name: San Francisco Estuary Institute \*

Tax ID: 942951373

Proposal Name: Update to the San Francisco Bay Region IRWM Plan for Climate Change Adaptation: Managing Risk to Water-Related Resources on the Bay Shoreline \*

Proposal Objective: The objective of this proposal is to update the Bay Area IRWM plan to address the challenges of climate change for regional water management. Critical gaps have been recognized in the ability of the region to respond to predicted sea level rise impacts on the extensive and vulnerable San Francisco Bay shoreline. Many of these vulnerabilities are likely to disproportionately impact disadvantaged communities in low-lying areas along the Bay shore. This project will develop and synthesize critical information for identifying and evaluating these impacts and produce a set of accessible tools for incorporation into the plan update. This component will make the Bay Area IRWM Plan more compliant for climate change planning by providing more detailed vulnerability assessment and adaptation strategies for the water-related infrastructure and ecological resources adjacent to the Bay's shoreline. These tools, which are specifically called for in the DWR's Climate Change Handbook for Regional Water Planning, will focus attention on the needs of local DACs and increase local engagement in the IRWMP process. The results of this project will support IRWMP project selection and implementation, as well as to connect IRWMP activities to other coordinated regional efforts. \*

**Budget**

Other Contribution	\$0.00
Local Contribution	\$57,000.00
Federal Contribution	\$40,000.00
Inkind Contribution	\$0.00
Amount Requested	\$157,444.00 *
Total Project Cost	\$254,444.00 *

**Geographic Information**

Latitude \*: DD(+/-) 37 MM 42 SS 30

Longitude \*: DD(+/-) 122 MM 16 SS 49

Longitude/Latitude Clarification: Center of San Francisco Bay Area

Location: San Francisco Bay Area

County: Sonoma,Napa,Solano,Alameda,Santa Clara,San Mateo,San Francisco,Marin \*

Ground Water Basin: San Francisco Bay Watersheds

Hydrologic Region: San Francisco Bay Watersheds

**Legislative Information**

Assembly District: 6th Assembly District,7th Assembly District,8th Assembly District,11th Assembly District,12th Assembly District,13th Assembly District,14th Assembly District,15th Assembly District,18th Assembly District,19th Assembly District,20th Assembly District,21st Assembly District,22nd Assembly District,23rd Assembly District,24th Assembly District \*

Senate District: 2nd Senate District,3rd Senate District,5th Senate District,7th Senate District,8th Senate District,9th Senate District,10th Senate District,11th Senate District,13th Senate District \*

US Congressional District: District 6 (CA),District 7 (CA),District 8 (CA),District 9 (CA),District 10 (CA),District 11 (CA),District 12 (CA),District 13 (CA),District 14 (CA),District 15 (CA),District 16 (CA) \*

**Project Information**

**Project Benefits Information**

Project Name: Update to the San Francisco Bay Region IRWM Plan for Climate Ch

Project Benefit Type	Benefit Type	Measurement	Description
Primary	Flood Protection	0	Increased and directed wetland restoration will improve flood management along shoreline
Primary	Land Restoration	0	Project will provide information for sedimentation study to assist in restoring tidal plains at mouth of Bay streams and flood protection channels
	Other-Improved		Project will improve placement and

Primary	Water Supply Facilities	0	improvement of infrastructure along shoreline
Primary	Training and Outreach	0	Community presentations and involvement of tribal communities
Primary	Climate Change Impacts	0	The project will help make the Bay Area IRWMP more compliant with climate change requirements by identifying the areas most vulnerable to sea level rise and where adaptation strategies need to be first employed
Primary	Management Plans-IRWMP	0	The study proposed in this project will enable IRWMP partners to quantify benefits listed in this table. As such, numeric endpoints have not been added to the Measurement field.
Primary	Other	0	The project will help identify the disadvantaged communities in low-laying areas of the Bay most vulnerable to sea level rise

**Budget**

Other Contribution	0
Local Contribution	57000
Federal Contribution	40000
Inkind Contribution	0
Amount Requested	157444
Total Project Cost	254444

**Geographic Information**

Latitude DD(+/-)	37	MM 42	SS 30
Longitude DD(+/-)	122	MM 16	SS 49
Longitude/Latitude Clarification	Center of San Francisc		Location San Francisco Bay Are

County	Sonoma,Napa,Solano,Alameda,Santa Clara,San Mateo,San Francisco,Marin
Ground Water Basin	
Hydrologic Region	San Francisco Bay
WaterShed	San Francisco Bay Watersheds

**Legislative Information**

Assembly District	6th Assembly District,7th Assembly District,8th Assembly District,11th Assembly District,12th Assembly District,13th Assembly District,14th Assembly District,15th Assembly District,18th Assembly District,19th Assembly District,20th Assembly District,21st Assembly District,22nd Assembly District,23rd Assembly District,24th Assembly District
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**Section : Applicant Information and Question's Tab**

APPLICANT INFORMATION AND QUESTION'S TAB

**Is this an application for a Regional Planning Grant or an Interregional Planning Grant?**

- 1)  Regional Planning Grant
- 2)  Interregional Planning Grant

**Q1. Proposal Description:**

**Provide a brief abstract of the Proposal. This abstract must provide an overview of the proposal including the main issues and priorities addressed in the proposal. Within the abstract, please state if the proposal is a regional (1 IRWM region) or interregional (more than 1 IRWM region) proposal. Please note if the Proposal will facilitate or support the participation of DAC's in the IRWM planning effort.**

The San Francisco Bay Area IRWMP is being updated to meet new requirements. Now to be addressed in the updated plan for the first time will be the challenges of climate change for regional water management. Critical gaps have been recognized in the ability of the region to respond to the impacts of accelerated sea level rise (SLR) on the extensive and vulnerable San Francisco Bay shoreline. This project will make the Bay Area IRWMP more compliant for climate change planning by providing more detailed vulnerability assessment and adaptation strategies for the extensive water-related infrastructure, communities and ecological resources along the Bay shoreline. Climate change challenges in the Bay region are focused particularly on SLR and related flood risks. Because of its naturally enclosed coastal setting, the Bay contains nearly half of the state's shoreline, making strategies for vulnerability assessment and adaptation of much greater importance here than in other IRWMP regions. Flood protection infrastructure, wastewater treatment plants, and other critical infrastructure are disproportionately found within the area of predicted sea level

rise, as are disadvantaged communities. Additionally, some of the most valuable ecological resources in the region are the tidal marshlands along the Bay shoreline, which support a suite of special-status species and have been the subject of large public investments during the past decades. The Bay shoreline is complex, however, necessitating different strategies in different physical settings. This project will develop a set of spatially specific planning tools to enable the successful implementation of IRWMP projects in the context of climate change. The tools will address several major IRWMP challenges: 1. The fluvial-tidal interface (head-of-tide), where risks from increasing stream flooding and rising tides are particularly concentrated on infrastructure, human safety, and ecological resources 2. Tidal marsh shorelines, which buffer Bay-shoreline infrastructure from wave erosion and provide critical ecological resources 3. Low-lying disadvantaged communities, which are disproportionately located along the shoreline. The project will address these gaps through the synthesizing of previously uncompiled data on shoreline dynamics and the historical form and function of tributary streams. We will identify shoreline typologies and head-of-tide zones and their projected trajectories with climate change. We will then use this information to identify areas of varying vulnerability and develop local strategies for addressing SLR. The development of this toolkit will improve climate change planning, though both the selection and implementation of IRWMP projects, and community outreach. These risks and planning needs are identified in regional plans, including the SF Bay Plan (amended for climate change in 2011) of BCDC and the Climate Change Adaptation Strategy (2009) of the State Coastal Conservancy which highlight the tremendous economic and ecological losses if adaptation measures are not implemented in the Bay Area. These adaptation strategies, assessments and other actions are specifically called for in DWR's Climate Change Handbook for Regional Water Planning, which identifies the need for technical analysis of SLR-induced marsh migration and describes Resource Management Strategies for planning for and adapting to SLR. The proposed project better positions the Bay Area to respond to the recommended actions of these broadly approved regional documents, and to maximize the successful implementation of IRWMP projects. The project will be led by San Francisco Estuary Institute, a non-profit science center established to support government agencies and partners with regional science tools. The project builds on datasets developed by SFEI in collaboration with IRWMP partners on local projects, and synthesizes this information into accessible tools for regional climate change planning.

## Q2. Project Director:

Provide the name, title, agency, address, phone number, and email of the person responsible for executing the grant agreement for the applicant. Persons that are subcontractors to be paid by the grant cannot be listed as the Project Director.

Robin Grossinger Senior Scientist and Director, Historical Ecology Program San Francisco Estuary Institute 4911 Central Avenue, Richmond, CA 94804 510-746-7380 (direct), 510-746-SFEI (main), 510-746-7300 (fax) robin@sfei.org www.sfei.org/HEP

## Q3. Project Manager:

Provide the name, title, agency, address, phone number, and email of the Project Manager from the applicant agency or organization that will be the day-to-day contact on this application.

Julie Beagle Environmental Analyst San Francisco Estuary Institute 4911 Central Avenue, Richmond, CA 94804 510-746-7312 (direct), 510-746-SFEI (main), 510-746-7300 (fax) julieb@sfei.org www.sfei.org

## Q4. Applicant Information:

Provide the agency name and address of the applicant submitting the application.

San Francisco Estuary Institute 4911 Central Avenue, Richmond, CA 94804 510-746-7380 (direct), 510-746-SFEI (main), 510-746-7300 (fax)

## Q5. Additional Information:

Based on the region's location, what is the applicable DWR region office (Northern, North Central, South Central, and/or Southern)? The following link can be used to view each DWR region office boundaries:

[http://www.water.ca.gov/groundwater/groundwater\\_basics/gw\\_contacts\\_info.cfm](http://www.water.ca.gov/groundwater/groundwater_basics/gw_contacts_info.cfm)

- a)  Northern Region  
 b)  North Central Region  
 c)  South Central Region  
 d)  Southern Region

## Q6. Additional Information:

List the name of the Regional Water Quality Control Board (RWQCB) in which your Project is located. For a region that extends beyond more than one RWQCB boundary, list the name of each region.

[http://www.waterboards.ca.gov/waterboards\\_map.shtml](http://www.waterboards.ca.gov/waterboards_map.shtml)

San Francisco Bay RWQCB Region 2 1515 Clay Street, Suite 1400 Oakland, CA 94612 510) 622-2300

## Q7. Additional Information:

Name the entity(ies) providing the fund(s) reported in the application information tab (Budget section under the category "Other Contribution"). If there are no "Other Contributions" please answer this question with, "No Other Contributions".

No Other Contributions

## Q8. Eligibility:

List the urban water suppliers that will receive funding from the proposed grant. Please provide the agency name, a contact phone number and email address. Those listed must submit self certification of compliance with California Water Code (CWC) §525 *et seq.* and Assembly Bill (AB) 1420, see information on Attachment 7 (PSP, Page 18). If there are none, so indicate.

None

## Q9. Eligibility:

Have all of the urban water suppliers, listed in Q8 above, submitted complete 2010 Urban Water Management Plans (UWMP) to DWR? If not, explain.

N/A

## Q10. Completeness Check:

Have all of the fields in the application been completed?

Yes

## Q10. Completeness Check (cont):

If no, please explain.

N/A

## Section : Application Attachments Tab

### APPLICATION ATTACHMENTS TAB

#### Attachment 1. Authorizing Documentation

Upload authorizing documentation here. Ensure file name is consistent with section VI of the Planning Grant PSP (disregard the 5 digit pin).

Last Uploaded Attachments:

Att1\_PG2\_SFEI\_AuthDoc\_1ofTotal5.pdf,Att1\_PG2\_SFEI\_AuthDoc\_2ofTotal5.pdf,Att1\_PG2\_SFEI\_AuthDoc\_3ofTotal5.pdf,Att1\_PG2\_SFEI\_AuthDoc\_4ofTotal5.pdf,Att1

Upload additional authorizing documentation here.

#### Attachment 2. Eligible Applicant Documentation

Upload eligible applicant documentation here. Ensure file name is consistent with section VI of the Planning Grant PSP (disregard the 5 digit pin).

Last Uploaded Attachments: Att2\_PG2\_SFEI\_EligDoc\_1ofTotal3.pdf,Att2\_PG2\_SFEI\_EligDoc\_2ofTotal3.pdf,Att2\_PG2\_SFEI\_EligDoc\_3ofTotal3.pdf

Upload additional eligible applicant documentation here.

#### Attachment 3. Work Plan

Upload the work plan here. Ensure file name is consistent with section VI of the Planning Grant PSP (disregard the 5 digit pin).

Last Uploaded Attachments: Att3\_PG2\_SFEI\_WrkPln\_1ofTotal1.pdf

Upload additional work plan components here.

#### Attachment 4. Budget

Upload Budget here. Ensure file name is consistent with section VI of the Planning Grant PSP (disregard the 5 digit pin).

Last Uploaded Attachments: Att4\_PG2\_SFEI\_BUDGET\_1ofTotal1.pdf

Upload additional budget components here.

#### Attachment 5. Schedule

Upload schedule here. Ensure file name is consistent with section VI of the Planning Grant PSP (disregard the 5 digit pin).

Last Uploaded Attachments: Att5\_PG2\_SFEI\_SCHED\_1ofTotal1.pdf

Upload additional schedule components here.

**Attachment 6. Program Preferences**

Upload program preferences here. Ensure file name is consistent with section VI of the Planning Grant PSP (disregard the 5 digit pin).

Last Uploaded Attachments: Att6\_PG2\_SFEI\_Pref\_1ofTotal1.pdf

Upload additional program preferences here.

**Attachment 7. AB 1420 and Water Meter Implementation Compliance**

Upload AB 1420 and Water Meter Implementation Compliance here, if applicable. Ensure file name is consistent with section VI of the Planning Grant PSP (disregard the 5 digit pin).

Last Uploaded Attachments: Att7\_PG2\_SFEI\_1420\_1ofTotal1.pdf

Upload additional AB 1420 and Water Meter Implementation Compliance, if applicable.