

SCOPE OF WORK

I. PROJECT DESCRIPTION

The City of Benicia (“the Grantee”) will conduct a local vulnerability assessment to determine how climate related risks will affect shoreline and community assets including watersheds, shoreline parks and trails, the Port of Benicia, and the Industrial Park (“the Project”). The purpose of the Project is to better prepare the Grantee community to deal with existing and future climate-related impacts, focus on how to make the Grantee’s key asset, the Industrial Park, more resilient to the impacts of climate change, and to evaluate how the City can integrate adaptation planning into City governance. The vulnerability and risk assessment will incorporate work already underway for the waterfront to evaluate existing conditions by creating an asset inventory that outlines vulnerabilities and risks based on best available science and information combined with best professional judgment and expert input. Based on this assessment, the Grantee will create recommended adaptation measures, (in the form of either a stand-alone City of Benicia Adaptation Plan, or an integration of recommended adaptation measures into existing City plans) to mitigate those risks, including proposed adaptation responses based on the asset inventory and implementation options to help prepare for the impacts identified throughout the planning process. The City has three primary goals it hopes to achieve at the end of this process:

The City’s primary goal is to better prepare the community to deal with current and future climate-related impacts. The vulnerability and risk assessment will evaluate existing conditions by creating an asset inventory that outlines vulnerabilities and risks based on best available science and information combined with best professional judgment and expert input. The San Francisco Bay Conservation and Development Commission (BCDC) is currently implementing the Adapting to Rising Tides Project (ART Project) to help San Francisco Bay Area communities increase preparedness for and resilience to sea level rise and storm events. BCDC has identified the need to conduct adaptation planning at the city-level where site specific analysis is possible. BCDC will assist the City with its localized planning that will allow the City to concentrate on specific assets that matter most to Benicia while expanding understanding of coastal resources. The City will utilize the ART Project toolkit when conducting the assessment to determine evaluation criteria for the proposed measures. The recommended adaptation measures or standalone Benicia Adaptation Plan will include a matrix of proposed adaptation responses based on the asset inventory and implementation

options for the community and the City to help prepare for the impacts identified throughout the planning process.

The City's secondary goal is to focus on how to make a key City asset –the Industrial Park – more resilient to the impacts of climate change. The first objective is to conduct an on-the-ground demonstration project that analyzes existing conditions and site-specific vulnerabilities and risks at businesses in the City's Industrial Park. The second objective is to identify synergies between mitigation and adaptive responses. To do this, the City will work with the Benicia Economic Development Department to leverage the Business Resource Incentive Program (BRIP), a \$625,000 comprehensive sustainable business management program that could fund adaptation strategies related to energy efficiency, demand response, and on-site energy production that will reduce greenhouse gas (GHG) emissions and prevent maladaptive responses. The third objective is to model economic benefits/costs of and identify additional funding sources for implementation of adaptation strategies. Finally, the fourth objective, if time allows, is to evaluate the effectiveness of the process and proposed strategies and use these findings to modify the draft adaptation plan/adaptive measures if necessary. The findings could be used to develop a guide for other jurisdictions with large industrial/commercial sectors and for use with the private sector.

The City's tertiary goal is to evaluate how the City can integrate adaptation planning into City governance. The first objective is to define the City's adaptation goals. The second objective is to understand uncertainties and resource constraints associated with climate impacts and assess the City's capacity to deal with those impacts. The third objective is to identify how adaptation strategies can help the City better manage its assets like storm drain water infrastructure and shoreline parks and trails. Information gathered during this process will help the City identify potential changes in policy and regulation that will support adaptive planning.

II. SCOPE OF WORK

Task 1 Project Management

Subtask 1.1 Project Management and Grant Administration

The Grantee will coordinate with Conservancy Project Manager to keep her informed about the status of the project. Grantee will be responsible for managing the budget and schedule, submitting requests for grant funds disbursement and progress reports, and other project management

City Benicia, Vulnerability Assessment and Adaptation Plan
Final Scope of Work – 4/18/14

activities including drafting the RFP and selecting contractor(s) and all costs associated with soliciting; retaining; overseeing; managing in the field; managing contracts for, and paying contractor(s); administration costs for billing the State Coastal Conservancy; and other miscellaneous time spent on managing the project.

Subtask 1.1.1 Request for Disbursements

See instructions for invoicing the State Coastal Conservancy in Appendix A; the Grantee will submit invoices to the State Coastal Conservancy using the “Request for Disbursement” form.

Subtask 1.1.2 Progress Reports

See instructions for invoicing the State Coastal Conservancy in Appendix A; the Grantee will attach a progress report to each Request for Disbursement for work performed during that billing period. In the progress reports, the Grantee shall document all subcontractor activities (submit invoices and/or status reports from contractor); deliverables completed, progress, issues, and proposed resolutions.

Subtask 1.2 Plan for Acknowledging Coastal Conservancy Funding

The Grantee will acknowledge Conservancy funding by completing the following tasks:

- Include information stating that the project is supported by the California Coastal Conservancy in the RFP to potential contractors;
- Embed this information in the final adaptation plan;
- Link to the adaptation plan on the City’s website and SustainableBenicia.org and reference funding source on those respective websites; and

Subtask 1.2 Meetings and Coordination with the San Francisco Bay Conservation and Development Commission (BCDC)

BCDC is currently implementing the Adapting to Rising Tides Project (ART Project) to help San Francisco Bay Area communities increase preparedness for and resilience to sea level rise and storm events. The Grantee will meet with BCDC to seek guidance throughout the project as needed and to ensure the project follows best practices in vulnerability assessments and adaptation plans.

Subtask 1.3 Subcontractor Selection

The Grantee may award subcontracts, as necessary, to qualified consultants or other agencies.

The Grantee shall submit subcontractor qualifications and draft contract for Conservancy review and approval prior to execution. The contract shall describe the scope of work and the products expected from each subcontractor. In the progress reports, the Grantee shall document all subcontractor activities; deliverables completed, progress, issues, and proposed resolutions.

Subtask 1.3.1 Draft RFP

See Grant Agreement. The Grantee will draft a RFP as part of the subcontractor selection process and shall seek guidance from the Conservancy Project Manager as needed.

Subtask 1.3.2 Subcontractor Selection and Documentation

See Grant Agreement; includes submitting subcontractor qualifications and draft contract for Conservancy review and approval prior to execution.

Task Deliverable(s):

1. Progress reports;
2. Invoices (using the Conservancy's "Request for Disbursement" form; and
3. Subcontract documentation.

Task 2 "Phase I" Scope and Organize

This Project will address complex climate-related issues that will require the attention of a diverse group of stakeholders. Task 2 will convene technical experts along with members of the Grantee community and solicit feedback about the proposed Project area, the sectors, services, and assets that will be addressed during the planning process, and the various climate scenarios and potential impacts the process will analyze, Grantee will also ask for assistance in setting its resilience goals and defining the desired outcomes of the planning process.

Subtask 2.1 Convene Technical/Advisory, and Stakeholder Groups

The Grantee will identify members to serve on the technical/advisory committee and create a stakeholder group. The technical/advisory committee will review climate impacts and scenarios (subtask 2.2), and both it and the stakeholder group will refine the project area (subtask 2.3), identify sectors and assets to assess (subtask 2.4), and set project resilience goals (subtask 2.5).

Subtask 2.2 Select Climate Impact/Scenarios

The Grantee will collaborate with the technical/advisory and stakeholder groups to select climate impacts and scenarios to focus the City of Benicia vulnerability assessment and adaptation plan.

Subtask 2.3 Refine Project Area

The Project Area was selected based on local community and stakeholder interest and capacity for participation along with a number of other factors. The Grantee has already discussed the Project Area with the community and other stakeholders, but will continue to collaborate with the technical/advisory and stakeholder groups to refine the project area. Any refinements will not affect the length of shoreline originally proposed in the Project Area map and grant application.

Subtask 2.4 Identify sectors/assets to assess

The Grantee will collaborate with the technical/advisory and stakeholder groups to identify specific sectors and assets to assess in the City of Benicia vulnerability assessment and adaptation plan.

Subtask 2.5 Discuss project resilience goals with technical/advisory and stakeholder groups

The Grantee will discuss and define the resilience goals for the project to inform the adaptation plan.

Task Deliverable(s):

1. Climate impacts/scenarios selected;
2. Sectors/assets to assess identified;
3. Project Area refined; and
4. Project resilience goals identified.

Task 3 “Phase II” Vulnerability and Risk Assessment

Subtask 3.1 Review Existing Conditions

The Grantee will conduct an assessment of the existing conditions and stressors within the City of Benicia relative to climate change impacts and/or hazardous events and develop an inventory of community assets in the project area.

Subtask 3.2 Identify community assets to be assessed; choose metrics to characterize assets (utilize ART Project tools).

The Grantee will identify assets and metrics/type of information to characterize the existing conditions and stressors.

Subtask 3.3 Assess the vulnerability of people, property, and resources to climate impacts; build vulnerability matrix (utilize ART Project tools); refine evaluation criteria developed in 3.2.

The Grantee will conduct an assessment of the vulnerability of people, property, and resources (community assets) to climate change impacts and/or hazardous events and will build a vulnerability matrix based on this assessment.

Subtask 3.4 Assess the ability of people, property, and resources to adjust to risks

The Grantee will conduct an assessment of the ability of people, property, and resources to adjust to these identified risks. Grantee may use surveys developed by ICLEI, Local Governments for Sustainability, to solicit feedback about the vulnerabilities and consequences of climate related impacts.

Subtask 3.5 Assess the likelihood of the identified risks occurring and associated consequences.

The Grantee will assess the probability of identified risks occurring and the magnitude of the effects on community assets if the impact occurs.

Subtask 3.6 Develop and Propose Adaptive Measures.

Develop evaluation criteria for proposed adaptive measures including relevant socioeconomic, environmental, and economic considerations

City Benicia, Vulnerability Assessment and Adaptation Plan
Final Scope of Work – 4/18/14

The Grantee will develop and propose adaptive measures, and evaluation criteria for proposed adaptive measures.

Task Deliverable(s):

1. An assessment of current conditions and community assets; develop criteria to characterize those assets;
2. Vulnerability matrix; An understanding of the risks to community assets;
3. An understanding of the adaptive capacity of people, property, and resources to adjust to identified risks;
4. Report with overview of vulnerabilities and adaptive capacity; and
5. Proposed adaptive measures and evaluation criteria.

Task 4 “Phase III” Adaptation Plan Creation

Subtask 4.1 Refine project resilience goals

The Grantee will work to refine project resilience goals.

Subtask 4.2 Apply evaluation criteria and build a catalogue of adaptive measures for the City of Benicia and community

The Grantee will apply evaluation criteria to proposed adaptive measures to build a catalogue of adaptive measures for potential future implementation by the City and community of Benicia.

Subtask 4.3 Conduct public outreach

The Grantee will conduct public outreach with stakeholders to present adaptive measures and potential adaptive responses along with evaluation criteria; classify measures by type and level of effort to implement.

Subtask 4.4 Identify opportunities to integrate adaptive measures into existing City plans, programs, and codes.

The Grantee will work to identify opportunities to integrate adaptive measures into existing City of Benicia plans, programs, and codes based on type of measure and level of effort to integrate and/or implement.

Subtask 4.5 Draft Recommended Adaptation Measures

The Grantee will draft recommended adaptation measures to either become a stand-alone City of Benicia Adaptation Plan, or integrated into existing City plans.

Subtask 4.6 Perform overall cost-benefit of proposed adaptive measures and City adoption of recommended adaptation measures

The Grantee will perform an overall cost-benefit analysis of the recommended adaptation measures. This will be high level analysis that we estimate cost to implement measure and benefits including financial, and environmental.

Task Deliverable(s):

1. Refined project resilience goals;
2. Catalogue of adaptive measures for City of Benicia and community;
3. A prioritized list of potential adaptive measures and responses according to stakeholder and community feedback;
4. List of opportunities to integrate adaptive measures into existing plans, programs, and codes;
5. First draft of the City of Benicia's recommended adaptation measures.
6. An analysis detailing the costs and benefits proposed adaptive strategies and adopting the recommended adaptation measures.

Task 5 "Phase IV" Industrial Park Case Study

Subtask 5.1 Conduct a site-specific analysis for at least 1 business in the Industrial Park, using the results of the vulnerability assessment.

The Grantee will utilize results of the Project vulnerability assessment and graduate student adaptation project to expand existing case study or to conduct a new site-specific analysis at a business(es) in the Industrial Park to analyze vulnerabilities and potential adaptation measures.

Subtask 5.2 Identify potential sources of funding for proposed strategies/measures (in addition to BRIP funding)

The Grantee will identify potential sources of funding for recommended adaptation measures that will be in addition to funds from BRIP.

Subtask 5.3 Develop prioritized recommendations for the private sector based on the results of the existing case study (developed by UC Berkeley graduate students) and additional assessments (see Task 5.1)

City Benicia, Vulnerability Assessment and Adaptation Plan
Final Scope of Work – 4/18/14

Based on the case study, the Grantee will utilize findings from graduate student project and prioritize recommendations for the private sector regarding adaptation measures.

Subtask 5.4 If time allows, monitor and evaluate the effectiveness of the site assessment and proposed adaptive measures and/or any attitudes or approaches that have changed as a result of the process.

If time allows during the project timeline, The Grantee will monitor and evaluate the effectiveness of the site assessment and adaptive strategies at a business(es) in the Industrial Park that may be funded by the City's BRIP.

Subtask 5.6 Incorporate lessons learned into final recommended adaptation measures

If time allots during the project timeline, the Grantee will incorporate lessons learned, from the completed case study (hotel) and any additional assessments, pending adequate time during the project timeline, at a businesses in the Industrial Park, into the final City of Benicia adaptation plan.

Subtask 5.7 Present final adaptation measures (stand-alone Adaptation Plan or measures to be integrated into existing plans) to City Council.

The Grantee will present the final City of Benicia Adaptation Measures (in either a standalone City of Benicia Adaptation Plan, or measures to be integrated into existing City plans) to the Benicia City Council for review and acceptance.

Subtask 5.8 CEQA Compliance – File Notice of Exemption

The Grantee will ensure CEQA Compliance and file a Notice of Exemption.

Task Deliverable(s):

1. An analysis of the vulnerabilities and potential adaptation measures of at least 1 business in the Industrial Park;
2. List of potential funding sources for proposed adaptive strategies/measures;
3. Private sector recommendations;

City Benicia, Vulnerability Assessment and Adaptation Plan
 Final Scope of Work – 4/18/14

4. If time allows during the project timeline, an evaluation of the effectiveness of the site assessment and adaptive strategies at at least 1 business in Industrial Park.
5. Incorporation of a written case study (graduate students work product) into the final plan.(already completed at start of project timeline)
6. Lessons learned added to the final adaptation plan from graduate work and any additional case studies.
7. Final City of Benicia adaptation plan and/or list of adaptive strategies and presentation to City Council.
8. CEQA Compliance and Notice of Exemption Filed.

III. SCHEDULE

The Grantee agrees to submit all scheduled project deliverables in accordance with the schedule set forth in this agreement. In the event the Grantee anticipates any delay in the project schedule, the Contractor shall inform the Conservancy Project Manager in writing prior to the scheduled due date of that task or deliverable.

In the event the project cannot be completed prior to the completion date of the Grant Agreement, the Grantee shall request an extension in writing, providing justification for the extension and a revised schedule of completion. There is no guarantee that the grant agreement will be extended.

<u>Task</u>	<u>Task Title</u>	<u>Deliverable</u>	<u>Estimated Completion Dates</u>
1	Project Management	See below subtasks 1.1 – 1.3	See below subtasks 1.1-1.3
1.1	Grant Administration	<ul style="list-style-type: none"> • Request for Disbursement • Progress Reports • Copies of Subcontracts 	Monthly throughout the contract term
1.2	Meetings and Coordination with the San Francisco Bay Conservation and Development Commission (BCDC)	<ul style="list-style-type: none"> • Guidance on best practices for vulnerability assessments and adaptation plans 	Pre-project (July 1, 2014) and throughout the contract term, as needed.

City Benicia, Vulnerability Assessment and Adaptation Plan
 Final Scope of Work – 4/18/14

1.3	Subtask 1.3 Subcontractor Selection	<ul style="list-style-type: none"> • Subcontractor Documentation <ul style="list-style-type: none"> ○ RFP ○ Subcontractor Qualifications ○ Contract ○ Names of Subcontractors 	July 1, 2014
2	Phase 1: Scope and Organize	<ul style="list-style-type: none"> • See below subtasks 2.1-2.5 	See below subtasks 2.1-2.5
2.1	Identify members for the Technical/Advisory and Stakeholder Groups; convene meetings	<ul style="list-style-type: none"> • Names of group members 	August 15, 2014
2.2	Select climate impacts/scenarios	<ul style="list-style-type: none"> • Selected climate impacts/scenarios 	August 15, 2014
2.3	Refine Project Area	<ul style="list-style-type: none"> • Project Area refined; final map 	August 15, 2014
2.4	Identify sectors/assets to assess	<ul style="list-style-type: none"> • Identified sectors/assets to assess 	August 15, 2014
2.5	Discuss project resilience goals with Technical/Advisory and Stakeholder groups	<ul style="list-style-type: none"> • Project resilience goals identified. 	August 15, 2014
3	Phase II: Vulnerability and Risk Assessment	<ul style="list-style-type: none"> • See below subtasks 3.1 – 3.6 	See below subtasks 3.1 to 3.6
3.1	Review existing conditions.	<ul style="list-style-type: none"> • An assessment of current conditions 	August 22, 2014
3.2	Identify community assets to be assessed; choose metrics to characterize assets.	<ul style="list-style-type: none"> • List of community assets and metrics/type of information to characterize existing conditions 	August 22, 2014
3.3	Assess the vulnerability of people, property, and resources to climate impacts; build vulnerability matrix; refine evaluation criteria developed in 3.2	<ul style="list-style-type: none"> • Vulnerability matrix. 	October 31, 2014

City Benicia, Vulnerability Assessment and Adaptation Plan
 Final Scope of Work – 4/18/14

3.4	Assess the ability of people, property, and resources to adjust to risks.	<ul style="list-style-type: none"> An understanding of the adaptive capacity of people, property, and resources to adjust to identified risks. 	October 3, 2014
3.5	Assess the likelihood of the identified risks occurring and associated consequences	<ul style="list-style-type: none"> An understanding of likelihood of impacts occurring and consequences 	October 10, 2014
3.6	Develop and Propose Adaptive Measures	<ul style="list-style-type: none"> Evaluation criteria for proposed adaptive measures. 	October 31, 2014
4	Phase III: Adaptation Plan Creation	<ul style="list-style-type: none"> See below subtasks 4.1-4.6 	See below subtasks 4.1 to 4.6
4.1	Refine project resilience goals.	<ul style="list-style-type: none"> Refined project resilience goals. 	November 4, 2014
4.2	Determine and apply evaluation criteria and build a catalog of adaptive measures for potential future implementation by the City and community. Build vulnerability matrix	<ul style="list-style-type: none"> Catalog of adaptive measures for the City of Benicia and community. Vulnerability matrix. 	November 18, 2014
4.3	Conduct public outreach with stakeholders to present adaptive measures and potential adaptive response; present evaluation criteria; classify measures by type and level of effort to implement; utilize innovative outreach methods	<ul style="list-style-type: none"> A prioritized list of potential adaptive measures and responses according to stakeholder and community priorities. 	December 11, 2014
4.4	Identify opportunities to integrate adaptive measures into existing City plans, programs, and codes.	<ul style="list-style-type: none"> A list of opportunities to integrate adaptive measures based on type and level of effort. 	December 18, 2014

City Benicia, Vulnerability Assessment and Adaptation Plan
Final Scope of Work – 4/18/14

4.5	Draft Adaptation Plan and/or outline for integration into existing City plans	<ul style="list-style-type: none"> • First draft of the City of Benicia’s Recommended Adaptation Measures (to be a stand-alone plan or integrated into existing plans). 	January 19, 2015
4.6	Perform overall cost-benefit of proposed adaptive strategies and City adoption of the adaptation plan or selected strategies	<ul style="list-style-type: none"> • An analysis detailing the costs and benefits to the City of Benicia of adopting the proposed adaptation plan and/or selected strategies 	May 1, 2015
5	Phase IV: Industrial Park Case Study	<ul style="list-style-type: none"> • See below subtasks 5.1-5.7 	See below subtasks 5.1 to 5.7
5.1	Conduct a site-specific analysis for at least 1 business in the Industrial Park, using the results of the vulnerability assessment and findings from graduate work (Berkeley Innovative Solutions). ¹	<ul style="list-style-type: none"> • An analysis of the vulnerabilities and potential adaptation measures of 1 business in the Industrial Park. 	February 23, 2015
5.2	Identify potential sources of funding for proposed strategies/measures (in addition to BRIP funding).	<ul style="list-style-type: none"> • List of potential funding sources for proposed adaptive strategies/measures. 	February 27, 2015
5.3	Develop prioritized recommendations for private sector based on results of existing case study prepared by graduate students and additional assessment (see Task 5.1).	<ul style="list-style-type: none"> • Private sector recommendations. 	March 13, 2015
5.4	If time allots, monitor and evaluate effectiveness of site assessment and adaptive strategies at at least 1 business in industrial park.	<ul style="list-style-type: none"> • An understanding of the effectiveness of the site assessment and adaptive strategies (4a) at 1 business in industrial park. 	May 1, 2015

¹ BIS Report available upon request.

City Benicia, Vulnerability Assessment and Adaptation Plan
Final Scope of Work – 4/18/14

5.5	Incorporate lessons learned in final adaptation plan/recommended measures.	<ul style="list-style-type: none"> Lessons learned added to the final adaptation plan and/or outline for integration into existing City plans. 	May 8, 2015
5.6	Present final recommended adaptation measures (whether in stand-alone plan or to be integrated into existing plans)	<ul style="list-style-type: none"> Final City of Benicia Adaptation Plan/Strategy. Council Staff Report. 	June 2, 2015
5.7	CEQA Compliance – File Notice of Exemption	<ul style="list-style-type: none"> CEQA NOE 	June 19, 2015

IV. BUDGET OVERVIEW

The total budget for the project is \$149,996. However, only \$132,680 is designated for consultant assistance. The tables below indicate the budget amount allotted per each major task, but the proposer should indicate costs by sub-task. The proposer may recommend budget changes, but only up to a 10% change from the original allocated amount. Proposer should provide an explanation for the recommended change. The City is committed to conducting innovative and engaging public outreach. The City estimates this will cost approximately \$17,000.

Task	City Budget	Consultant Budget
Administration	\$9,380	(\$0)
Tasks 2.1-2.5	\$1,225	(\$11,775)
Tasks 3.1-3.6	\$3,879	(\$61,321)
Tasks 4.1-4.6	\$2,436	(\$51,984)
Tasks 5.1-5.4	\$396	(\$7,600)
Total	\$7,936	(\$132,680)

Task	Task Title	Total Consultant Budget
1	Project Management and Grant Administration	\$9,380 (City)
2	Phase I: Scope and Organize	\$11,775
3	Phase II: Vulnerability and Risk Assessment	\$61,321
4	Phase III: Adaptation Plan Creation	\$51,984 (at least \$17,000 designated for innovative outreach methods, Sub-task 4.3)
5	Phase IV: Industrial Park Case Studies	\$7,600
TOTAL		\$132,680