

EXHIBIT B1

Project Work Plan, Schedule, and Budget

Name of local government: City of Avalon

Name of project: Targeted Local Coastal Program Update to Address Sea Level Rise Vulnerability

Grantee Contact Information

Person Authorized to sign grant agreement and any amendments:

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Federal Employer Identification Number: 95-6000669

Budget Summary:

CCC funding:	\$75,000.00
Other funding:	<u>\$95,833.63</u>
Total project cost:	\$170,833.63

Term of Project: December 4, 2017 *or upon grant execution* – August 31, 2019

A. PROJECT DESCRIPTION

The project will involve conducting a sea level rise vulnerability and risk assessment through wave modeling and run up analyses for various sea level rise scenarios. The assessment will measure the degree of vulnerability posed to Avalon's coastal resources, including beaches, piers, parks, bluffs, seawalls, roadways, residences, businesses, and critical facilities and infrastructure by examining the risks and sensitivities associated with sea level rise, coastal flooding, and erosion hazards. This analysis includes assessing how sea level rise will impact granted public trust lands, satisfying State requirements under Assembly Bill (AB) 691. In addition, a targeted LCP amendment will be undertaken to incorporate the key findings of the vulnerability assessment into the City's existing LCP, including updated hazard maps, if feasible, and a program policy to conduct future Adaptation Planning and to develop a comprehensive LCP amendment on sea level rise.

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B. TASKS

Task 1 – Project Launch

Upon award of the grant and execution of the grant agreement, the City will prepare a Request for Proposals (RFP) to assist with conducting the Vulnerability Assessment. The RFP will be noted on the City's website, posted on *Public Purchase*, and sent to consultants specializing in sea level rise planning. The RFP will be submitted to the Commission staff for their review and comment prior to being submitted to the City Council for their review and authorization to release.

The proposals received in response to the RFP will be reviewed by a City staff committee consisting of representatives of the City's Planning, Public Works, and Harbor Departments. The proposals will be reviewed and rated and, if deemed necessary, the three highest rated firms will be interviewed by the City staff committee prior to making a recommendation for consultant selection. The committee's recommendation will be presented to the City Council at a duly noticed public meeting at which the award of contract will occur.

Following the award and execution of contract for the Vulnerability Assessment, a kickoff meeting will be held and attended by appropriate members of the selected consultant and representatives of key City departments. The kickoff meeting will allow for the key participants on the part of the consultant and the City to be introduced and to review the project schedule. The meeting will also facilitate the transfer of existing information and reports that are germane to preparing the Vulnerability Assessment. Following the kickoff meeting, the community engagement plan for the assessment process will be formalized identifying when and what type of public outreach activities will be undertaken over the course of the assessment.

Outcome/Deliverables:

1. Consultant RFP and contract
2. Kickoff and project schedule
3. Community engagement plan + schedule

Task 2 – Assessment Preparation

Due to the unique wave exposure of Avalon, numerical wave modeling will be performed to characterize nearshore wave conditions along the city's coastline. Two-dimensional wave modeling will be applied to transform waves from an offshore boundary to the established nearshore wave conditions at transects spaced along the coast. Wave modeling will be performed for an extreme storm event (100-year return period) representative of a strong "Santa Ana" wind event. History indicates that winds from this type of event develop significant wave energy directed toward Avalon and have accounted for much of the coastal storm damage on record. Using the nearshore wave conditions for each event and each sea level rise scenario, the following analyses will be applied:

1. Coastal storm-related flooding will be evaluated using empirical methods for estimating wave run up and overtopping of coastal structures since the majority

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of Avalon's shoreline consists of a combination of rock revetments and seawalls with pockets of narrow sand or cobble beaches.

2. Nearshore wave crest profiles will be developed to evaluate Avalon's Green Pleasure Pier and Cabrillo Mole exposure to sea level rise.
3. Non-storm-related flooding (i.e. baseline flooding conditions) will be evaluated by comparing monthly high water levels with existing topography in the city.

The City will integrate the information from the wave modeling and run up analyses described above and will create eight sea level rise hazard scenarios that cover the likely range of sea level rise from 2050 to 2100 according to sea level rise projections in the National Research Council (NRC, 2012) report and the recent Ocean Protection Council Report (Griggs et al, 2017). These eight scenarios encompass 4 baseline conditions and 4 baseline conditions with 100-year storms:

1. No sea level rise
2. 2 feet of sea level rise
3. 4 feet of sea level rise
4. 6 feet of sea level rise
5. No sea level rise + 100-year storm
6. 2 feet of sea level rise + 100-year storm (2050 high)
7. 4 feet of sea level rise + 100-year storm (~2100)
8. 6 feet of sea level rise + 100-year storm (2100 high)

A draft vulnerability assessment (VA) report will be prepared to summarize potential impacts to coastal resources from the hazards identified for each sea level rise scenario. This report will identify the critical community assets/resources that lie along the city's coastline (e.g., Cabrillo Mole, Green Pleasure Pier, Descanso Beach, Hamilton Cove, Pebbly Beach Road and Industrial Area, etc.) and discuss their capacity, or lack thereof, to adapt to sea level rise based on input from the managers of these assets. The assessment will measure the degree of vulnerability posed to Avalon's coastal resources, including beaches, piers, parks, bluffs, seawalls, roadways, residences, businesses, and critical facilities and infrastructure by examining the risks and sensitivities associated with sea level rise, coastal flooding, and erosion hazards. Additionally, the report will also assess how sea level rise will impact granted public trust lands, satisfying State requirements under Assembly Bill (AB) 691. The results from the City's wave modeling and run up analyses will also be compared with CoSMoS modeling, as feasible.

Meetings with key stakeholders will be held during the process of preparing the vulnerability assessment. The stakeholders will be organized into a Technical Working Group and a Community Advisory Group. In addition to staff from key City departments, it is anticipated that the stakeholders participating in the process will include representatives of the County of Los Angeles, Catalina Island Chamber of Commerce, Catalina Island Conservancy, Catalina Express, Southern California Edison, Catalina Island Company, and neighborhood groups.

A duly noticed public workshop, which will be conducted by the Avalon Planning Commission, will also be held during the preparation of the vulnerability assessment. The purpose of this initial workshop will be to explain to the public and the Planning

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Commission the LCP update process that is underway and the results of the analyses that have been performed. The sea level rise scenarios will be discussed along with the community assets that are at-risk as a result of sea level rise, and community/stakeholder input will be sought on the approach to assessing the vulnerability of critical community assets/resources.

Following the initial workshop, the input received from the City, stakeholders and the public will be integrated into the vulnerability assessment as appropriate. The vulnerability assessment will be used to prioritize key areas and develop initial sea level rise adaptation strategies that will serve as the starting point for the future preparation of an Adaptation Plan.

This task will conclude with the results of the vulnerability assessment and potential adaptation strategies being assembled as a draft report. The draft report will be submitted to the Commission staff for their review and comment. The report will then be revised in response to Commission staff comments, as necessary, and then presented and discussed at a second duly noticed public workshop to be conducted by the Avalon Planning Commission, at which the Planning Commission will consider adopting the final report.

Outcome/Deliverables:

1. Sea level rise hazard maps for each scenario
2. Coastal resources database and maps
3. Critical asset list and manager survey
4. Draft and final vulnerability assessment reports
5. Materials for stakeholder group meetings and public workshop; report on outcomes of engagement activities

Task 3 – Targeted LCP Amendment

Following Planning Commission acceptance of the final Vulnerability Assessment Report, a targeted LCP amendment will be prepared that will incorporate the key findings of the Vulnerability Assessment into the city's certified LCP, including updated hazard maps, if feasible. The targeted amendment will also involve the inclusion of a program policy in the LCP to conduct future Adaptation Planning and develop a comprehensive LCP amendment on sea level rise. The targeted amendment will be prepared as a freestanding document but in a format that will facilitate its insertion in the future comprehensive LCP amendment on sea level rise.

A draft of the targeted amendment will be submitted to the Commission staff for their review and comment. The targeted amendment will be revised in response to Commission staff comments, as necessary, and then presented and discussed at a duly noticed public hearing to be conducted by the Avalon Planning Commission, at which the Planning Commission will consider adopting the amendment. Subsequently, the targeted amendment will be considered at a duly noticed public hearing to be conducted by the Avalon City Council, at which the City Council will consider adopting the amendment. The amendment will then be submitted to the Commission for certification.

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Outcome/Deliverables

1. Draft and final targeted LCP amendments

C. SCHEDULE

Project start/end dates: December 4, 2017 or *upon grant execution* – August 31, 2019

Task 1. Project Launch	Begin date: 12/4/2017 End Date: 3/23/2018
1.1 Issue RFP	Begin date: 12/4/2017 End Date: 1/19/2018
1.2 Select consultant – kickoff meeting, develop project schedule	Begin date: 1/22/2018 End Date: 2/23/2018
1.3 Community engagement plan + schedule	Begin date: 2/26/2018 End Date: 3/23/2018
<u>Outcome/Deliverables</u> 1. Consultant contract 2. Kickoff and project schedule 3. Community engagement plan + schedule	
Task 2. Assessment Preparation	Begin date: 2/26/2018 End Date: 1/18/2019
2.1 Hazard Analysis: sea level rise hazard maps for each scenario (eight total) & coastal resources database and maps	Begin date: 2/26/2018 End Date: 4/20/2018
2.2 Identify critical assets/managers; issue survey to understand adaptive capacity of those assets	Begin date: 2/26/2018 End Date: 5/11/2018
2.3 Prepare draft vulnerability assessment (VA) report	Begin date: 5/14/2018 End Date: 8/17/2018
2.4 Stakeholder/community group meetings	Begin date: 6/4/2018 End Date: 6/29/2018
2.5 Public workshop 1	Begin date: 7/2/2018 End Date: 7/20/2018
2.6 Commission staff review	Begin date: 8/20/2018 End Date: 10/19/2018
2.7 Revised draft vulnerability assessment report	Begin date: 10/22/2018 End Date: 12/7/2018
2.8 Public workshop 2 & final VA report	Begin date: 12/10/2018 End Date: 1/18/2019
<u>Outcome/Deliverables</u> 1. Sea level rise hazard maps for each scenario 2. Coastal resources database and maps 3. Critical asset list and manager survey 4. Draft and final vulnerability assessment reports 5. Materials for stakeholder group meetings and public workshop; report on outcomes of engagement activities	
Task 3. Targeted LCP Amendment	Begin date: 1/21/2019 End Date: 8/23/2019
3.1 Prepare targeted LCP amendment	Begin date: 1/21/2019

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	End Date: 2/22/2019
3.2 Commission staff review	Begin date: 2/25/2019 End Date: 6/21/2019
3.3 Planning Commission approval	Begin date: 6/24/2019 End Date: 7/26/2019
3.4 City Council adoption	Begin date: 7/29/2019 End Date: 8/23/2019
<u>Outcome/Deliverables</u>	
1. Draft and final targeted LCP amendments	

D. BENCHMARK SCHEDULE

ACTIVITY	COMPLETION DATE
Project Launch	3/23/2018
Issue RFP	1/19/2018
Consultant selection; kickoff meeting; project schedule	2/23/2018
Community engagement plan and schedule	3/23/2018
Hazard analysis (sea level rise and other coastal hazards)	4/20/2018
Critical asset identification/managers	5/11/2018
Prepare draft vulnerability assessment (VA) report	8/17/2018
Stakeholder/community group meetings	6/29/2018
Public workshop 1	7/20/2018
Commission staff review	10/19/2018
Revised draft vulnerability assessment report	12/7/2018
Public workshop 2 & final VA report	1/18/2019
Targeted LCP amendment	2/22/2019
Commission staff review	6/21/2019
Planning Commission approval	7/26/2019
City Council adoption	8/23/2019

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E. BUDGET

	CCC Grant Total	Match/ Other Funds (Source #1 - General Fund)	Match/ Other Funds (Source #2 - TBD)	Total (LCP Grant Funds + Match/ Other Funds)
LABOR COSTS²				
County/City Staff Labor				
Task 1 – Project Launch		\$4,700.05		\$4,700.05
Task 2 – Assessment Preparation		\$17,079.10		\$17,079.10
Task 3 – Targeted LCP Amendment		\$6,246.48		\$6,246.48
Total Labor Costs	\$0	\$28,025.63	\$0	28,025.63
DIRECT COSTS				
County/City Staff Project Supplies				
A				
B, etc.				
Total	\$0	\$0	\$0	\$0
County/City Staff Travel In State³				
Mileage		\$98		\$98
Hotel, etc.		\$980		\$980
Total	\$0	\$1,078	\$0	\$1,078
Consultants⁴				
Consultant A				
Task 1 – Project Launch		\$8,390		\$8,390
Task 2 – Assessment Preparation	\$66,000	\$58,340		\$124,340
Task 3 – Targeted LCP Amendment	\$9,000			\$9,000
Total	\$75,000	\$66,730	\$0	\$141,730
Total Direct Costs	\$75,000	\$67,808	\$0	\$142,808
OVERHEAD/INDIRECT COSTS⁵				
Total County/City Staff Overhead/Indirect Costs	\$0	\$0	\$0	\$0
TOTAL PROJECT COST	\$75,000	\$95,833.63	\$0	\$170,833.63

² Amount requested should include total for salary and benefits.

³ Travel reimbursement rates are the same as similarly situated state employees.

⁴ All consultants must be selected pursuant to a bidding and procurement process that complies with all applicable laws.

⁵ Indirect costs include, for example, a pro rata share of rent, utilities, and salaries for certain positions indirectly supporting the proposed project but not directly staffing it. Amount requested for indirect costs should be capped at 10% of amount requested for "Total Labor."