

EXHIBIT A
SCOPE OF WORK

Project Work Plan, Schedule, Evaluation, and Reporting

City of Manhattan Beach

**City of Manhattan Beach LCP Update and Sea Level Rise Planning
Greenhouse Gas Reduction Fund
Local Coastal Programs**

Federal Tax ID#: 95-6000742

Budget Summary:

CCC funding:	\$225,000.00
City funding:	\$100,000.00
Partners In-kind:	\$ 30,000.00
<u>City In-Kind:</u>	<u>\$585,918.00</u>
Total project cost:	\$940,918.00

Term of Project: 02/01/2019, or upon execution of this agreement – 12/31/2020

A. PROJECT DESCRIPTION

As part of Manhattan Beach's Coastal Resiliency and Climate Change Adaptation Project, and consistent with the California Coastal Act, the City of Manhattan Beach proposes to update its Local Coastal Program (LCP) to better plan for climate change in the Coastal Zone, particularly for sea level rise (SLR), extreme high tides, flooding, storm events, and coastal erosion. The goal of the City of Manhattan Beach's Coastal Resiliency and Climate Change Adaptation Project is to complete best-practice SLR and climate change analyses and planning, thereby providing a strong scientific basis to inform and enhance the preparation and implementation of the City's Climate Action and Adaptation Plan and update to the LCP-Land Use Plan (LCP-LUP), General Plan, and Hazard Mitigation Plan. This analysis and update to the LCP-LUP will include a SLR vulnerability and risk analysis taking into consideration coastal storms and SLR overland flooding. The City will use the United States Geological Survey (USGS) Coastal Storm Modeling System 3.0 (CoSMoS), and analyze the impacts from SLR to the local groundwater table, and the confluence of precipitation and storm events' impact on stormwater infrastructure.

EXHIBIT A**B. TASKS**

The project will include completion of technical studies and incorporation of SLR adaptation options into an LCP-LUP Update. Specific project tasks and deliverables include:

- Preparation of a Sea Level Rise Vulnerability and Risk Assessment
- Development of an Adaptation Plan and other sea level rise-related technical studies
- Community Outreach
- LUP Update, including local adoption and submittal to the Commission, with certification to occur outside the grant term

Task 1. PROJECT INITIATION

- Task 1.1: Project Initiation and Professional Consultant RFP
 - Objectives:
 - Executing the grant agreement with the California Coastal Commission (CCC) and determining information and resource needs.
 - Preparing a request for proposal (RFP). The RFP will seek proposals from professional consultants and/or researchers who are qualified to assist the City primarily in completing tasks outlined below.
 - Evaluating consultant proposals and completing the selection process.
 - Updating the work program and schedule once a consultant is under contract.
 - Identifying stakeholders and decision makers, and initiating the SLR Vulnerability and Risk Assessment with the Manhattan Beach Sustainability Task Force, USGS, USC Sea Grant, and City Staff.
 - Deliverables:
 - RFP
 - Professional consultant under contract
 - Updated work program and schedule
 - Team kick-off meeting agenda
 - CCC coordination meeting agenda
 - Project Webpage

Task 2. SEA LEVEL RISE VULNERABILITY AND RISK ASSESSMENT

- Task 2.1: Sea Level Rise Impacts and Baseline Conditions Research
 - Objectives:
 - Gather existing condition/baseline information, data on historic coastal or shoreline erosion rates, review climate change research needs and methodology.
 - Potential physical SLR impacts in the LCP planning area will be identified including inundation, flooding, wave impacts, erosion, and saltwater intrusion impacts.
 - Deliverable: Memo incorporating available information to identify key issues including maps, GIS layers, graphics, figures, baseline conditions, planning hazards, SLR projections, time horizons, etc.
- Task 2.2: Sea Level Rise Risk, Hazards, and Vulnerability Assessment
 - Objectives:

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- Potential current and future impacts from SLR hazards and coastal storm events will be identified and analyzed based on a range of SLR projections as outlined in OPC's Sea Level Rise Guidance Document.
- Descriptions of the characteristics that influence risk, including exposure, sensitivity, and adaptive capacity of each coastal resource to SLR impacts, along with the expected consequences of those impacts for the resource and broader community will be developed.
- Using the best available science on SLR and recommendations from the state of California, including Rising Seas in California (Griggs et al. 2017) and the most recently adopted update to the State Sea Level Rise Guidance, analyses will be performed for different future planning horizons, such as 2050 and 2100.
- A range of SLR projections relevant to the Manhattan Beach LCP planning area will be developed, and will include analysis of the H++ scenario for the City's critical infrastructure, and other development, as appropriate. Scenarios will be modelled or quantitatively analyzed where feasible and applicable, and will include Medium-high Risk Aversion and Extreme Risk Aversion scenarios per the 2018 OPC Guidance recommendations to aid in planning and understanding the worst-case scenario for projected time horizons.
- The flood analysis will examine direct connectivity through pipes and storm drains, as well as storm-related impacts. Flood and wave impacts will examine, among other scenarios, the impact from a 100-year storm event when the beach is narrowed by both seasonal erosion and long-term erosion.
- Include probabilities of future occurrences of events, such as future threats, the magnitude of impacts, timing and certainty using the USGS Hazard Exposure Risk & Analysis (HERA) tool.
- Focusing on coastal storm and SLR overland flooding, integrate storm and non-storm scenarios, including maximum daily and annual tidal inundation, assess land uses at risk through CoSMoS modeling and create maps of resources and land uses at risk.
- Assess potential risks from SLR to coastal resources and development in Manhattan Beach's LCP planning area including an assessment of SLR vulnerability with and without key development that is currently vulnerable and/or protected by a revetment and/or a row of residences; an evaluation of SLR vulnerability of existing and planned segments of the California Coastal Trail; and inclusion of environmental justice by, to the extent feasible, analyzing the differential impacts of SLR upon various demographics and community groups.
- Incorporate anticipated changes in beach width under future SLR scenarios and an evaluation of the feasibility and effectiveness of sediment management and beach nourishment.
- Maps, GIS layers, graphics, figures, charts, tables, descriptions or other systems will illustrate the impacts of current and future hazards and changes to current and future coastal resources, including beaches and dunes that may be restricted from future migration by natural or human-constructed barriers.

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- Deliverables:
 - First Draft Sea Level Rise Risk, Hazards, and Vulnerability Assessment incorporating the objectives and analyses above.
 - Second Draft of Sea Level Rise Risk, Hazards, and Vulnerability Assessment incorporating deliverables from Tasks 2.3 and 2.4 and CCC edits of Tasks 2.2, 2.3, and 2.4.
 - Final Sea Level Rise Risk, Hazards, and Vulnerability Assessment that incorporates CCC review comments.
- Task 2.3: USGS Groundwater-SLR Hazard Analysis
 - Objectives:
 - Using research underway by the USGS and the University of Wyoming (which will be complete by this proposed project's inception), this analysis will project where SLR will raise groundwater water tables and potentially lead to surfacing of the water table.
 - Assess how water table shoaling may impact subterranean city infrastructure (storm drains, pipes, utility assets) and/or where the shoaling may lead to ponding of groundwater in low-lying sections of the coast under a range of sea level rise scenarios.
 - Develop descriptions of the characteristics that influence risk, including exposure, sensitivity, and adaptive capacity of each coastal resource to water table shoaling, along with the expected consequences of those impacts for the resource and broader community.
 - Deliverables:
 - USGS groundwater-SLR hazard maps demonstrating water table elevations with associated sea level rise projects.
 - Table and associated GIS shapefile that identifies subterranean City assets and their vulnerability to water table shoaling; as well as locations of potential backshore water table surfacing.
 - Draft USGS Groundwater-SLR Hazard Analysis summary report including a description of the research and analysis.
 - Final USGS Groundwater-SLR Hazard Analysis summary report that incorporates CCC review comments and is then incorporated into the Second and Final Drafts of the Sea Level Rise Risk, Hazards, and Vulnerability Assessment (Deliverable 2.2).
- Task 2.4: Confluence Modeling on Stormwater Infrastructure
 - Objectives:
 - Assess the confluence of precipitation rain and coastal wave-driven storm events and impacts on stormwater infrastructure.
 - Determine which of the City's stormwater conveyance assets may be impacted by the confluence of coastal and rain-driven events.
 - Develop descriptions of the characteristics that influence risk, including exposure, sensitivity, and adaptive capacity of the City's stormwater system to the confluence of coastal and precipitation events, along with the expected consequences of those impacts for the resource and broader community.
 - Deliverables:
 - Table and associated GIS shapefile that identifies subterranean City assets and their vulnerability to water table shoaling; as well as locations of potential backshore water table surfacing.

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- Draft Confluence Modeling on Stormwater Infrastructure summary report including a description of the research and analysis.
- Final Confluence Modeling on Stormwater Infrastructure summary report that incorporates CCC review comments and is then incorporated into the Second and Final Drafts of the Sea Level Rise Risk, Hazards, and Vulnerability Assessment (Deliverable 2.2).

Task 3. SEA LEVEL RISE ADAPTATION PLAN

- Task 3.1: Sea Level Rise Adaptation Research and Impacts
 - Objectives:
 - Utilize the products developed in Task 2 and best available science on SLR, including the CCC's SLR Guidance document, to inform the SLR Adaptation Plan.
 - Outreach will include discussion of the scientific information as well as discussion with key stakeholders to draft SLR risk assessment, as well as identify potential adaptation measures and strategies (Task 5).
 - Deliverable: Outline of SLR adaptation measures and strategies.
- Task 3.2: Sea Level Rise Adaptation Plan
 - Objectives:
 - Develop adaptation measures/strategies to minimize risks from hazards and to protect coastal resources.
 - Evaluate and prioritize adaptation measures that may be appropriate to both minimize hazards and protect coastal resources in Manhattan Beach. Consider costs and benefits of both market value (e.g., property tax revenue, TOT, etc.) and non-market value resources (e.g., beach recreational and ecological values, etc.)
 - Identify adaptation measures/strategies to address Manhattan Beach's specific SLR vulnerabilities, including minimizing impacts and risks to coastal resources, infrastructure, and development.
 - Provide guidance on how to assess and determine which adaptation measure/strategy is appropriate and when to implement adaptation measures/strategies.
 - Ensure that SLR adaptation measures/strategies utilize guidance from *Safeguarding California Plan for Reducing Climate Risk* and incorporate measures that protect California's most vulnerable populations, achieve multiple benefits from efforts to reduce climate risks, prioritize green infrastructure solutions, and integrate climate risk reduction with emissions reductions where possible.
 - Develop a trigger-based, adaptation pathway strategy for implementing identified adaptation measures with the goal of having an economically and politically feasible plan that prepares the City for the worst case scenario of the hazards described above (to be developed with stakeholders and CCC staff).
 - Deliverables:
 - First draft Sea Level Rise Adaptation Plan for CCC review.
 - Second draft Sea Level Rise Adaptation Plan that incorporates CCC review comments, to share at stakeholder workshop.
 - Third draft Sea Level Rise Adaptation Plan with incorporation of community input from stakeholder workshops for CCC review.

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- Final Sea Level Rise Adaptation Plan, with incorporation of community input and CCC edits, for later incorporation into the City's Climate Adaptation Plan, LCP-LUP, General Plan, and Hazard Mitigation Plan.

Task 4. DEVELOP LCP-LUP LANGUAGE

- Task 4.1 Preparation of Local Coastal Program-Land Use Plan (LCP-LUP) Annotated Outline
 - Objectives:
 - Identify the required components of the updated LCP-LUP, including new provisions to address SLR, as well as areas of revision consistent with California Coastal Act compliance and updates to the City's General Plan.
 - The City will submit a draft of the annotated outline to the CCC for review. The City and CCC will exchange drafts and comments through iterative review prior to completing the outline.
 - Deliverables:
 - Draft Annotated LCP Land Use Plan Outline.
 - Final Annotated LCP Land Use Plan Outline that incorporates CCC review comments.
- Task 4.2 LCP-Land Use Plan Update
 - Objectives:
 - Comprehensive update to Manhattan Beach's LCP-LUP which will incorporate the SLR adaptation measures and strategies identified in Task 3, and will be consistent with the California Coastal Act and updated Manhattan Beach General Plan.
 - Graphics will clearly delineate the Coastal Zone Boundaries, as well as the City's zoning and land use designations within these zones.
 - Update will include a comprehensive assessment of available beach amenities, including municipal parking lots, public restrooms, trails, etc.
 - Update will include a comprehensive assessment of available visitor-serving overnight accommodations.
 - The updated LCP-LUP will include policies that address protection of coastal resources, including: planning and new development; hazards/shoreline development; public access and recreation; coastal habitats; coastal resources; agricultural resources; water quality; archaeological/paleontological resources; scenic resources; energy, industrial, and other coastal development uses.
 - Assess, or specify a program/process to assess, whether current and planned land uses are appropriate given SLR impacts and if land uses should be revised accordingly.
 - Identify new policies and ordinances to implement the adaptation measures.
 - Deliverables:
 - First Draft of LUP Chapters of the Manhattan Beach LCP Land Use Plan will be written by consultant and reviewed by planning staff, with batches composed of 2-3 chapters at a time (up to 3 batches) submitted to CCC for review.

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- Full Draft 2 of updated chapters of the Manhattan Beach LCP Land Use Plan, incorporating CCC and planning staff edits from the first round of review submitted to CCC for review.
- Full Draft 3 incorporating CCC review comments and planning staff edits from the second round of review (This draft will be submitted to Planning Commission per Task 5.2). City will share updated draft adopted by the Planning Commission with CCC prior to City Council adoption if there are changes made by the Planning Commission.
- FINAL DRAFT of LCP-LUP amendment to CITY COUNCIL for adoption (Task 5.3).

Task 5. PUBLIC PROCESS & OUTREACH

- Task 5.1: Community Outreach & Education
 - Objectives:
 - The City will conduct community outreach to inform and consult with key stakeholders, decision-makers, and other interested parties prior to City adoption of the LCP-LUP.
 - Partners will assist with public workshops. As the consultant comes on board, they will be incorporated into the public outreach events.
 - Communicate the risks and impacts of current and future hazards through maps, graphics, figures, charts, tables, descriptions and other systems (Task 2).
 - Include non-residents (those who visit, work or recreate along the coast) as well as disadvantaged, environmental justice, or vulnerable communities, as well as other underserved populations as specified in the grant terms and conditions. Examples include the elderly, youth, low-income, minority, non-English speakers, single-family households, homeless, and refugees. Definitions on environmental justice, disadvantaged, and vulnerable communities can be found in the glossary of the recent State of California Sea Level Rise Guidance 2018 Update.
 - Building on past efforts in LA County, the City of Manhattan Beach will work with USGS to develop virtual reality applications that help the community visualize the projected impacts, as well as the potential adaptation solutions.
 - The draft LCP Land Use Plan will be revised as necessary following public review. The City will provide a summary of changes to the LCP-LUP from public review to the CCC.
 - Communicate the risks and impacts of current and future hazards through maps, graphics, figures, charts, tables, descriptions and other systems.
 - Deliverables:
 - Four Stakeholder workshops focused on SLR science and impacts (Task 2), vulnerabilities in the community (Task 2), and adaptation options (Task 3). Agendas and notes will be documented.
 - City social media postings on SLR and workshops.
 - Senior-focused workshop at “Dine ‘N Discover” luncheon on SLR science and impacts, vulnerabilities in the community, and adaptation options. Agendas and notes will be documented.

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- Youth-focused workshop in partnership with the Sustainability Youth Council on SLR science and impacts, vulnerabilities in the community, and adaptation options. Agendas and notes will be documented.
 - Four advertisements in local papers inviting the public to attend workshops.
 - City news stories posted on SLR science and impacts, vulnerabilities in the community, and adaptation options.
 - At least 10 Virtual Reality (VR) visualizations, available via the internet, or in person using a VR headset.
 - 10 planned VR interactions with stakeholders comprised of four SLR-focused workshops and outreach at existing community events such as the Manhattan Beach Hometown Fair, Earth Month, Sustainability Task Force meetings, Senior Dine 'N Discover, Sustainability Youth Council, etc.
 - Updated Manhattan Beach SLR Adaptation Plan reflecting community input.
- Task 5.2: Planning Commission Public Review
 - Objectives:
 - Public review of the draft Manhattan Beach LCP-LUP will be initiated with an emphasis on the need to analyze, plan for, and adapt to the effects of SLR along the coast.
 - The draft LCP-LUP (Task 4) will be presented to the Planning Commission for consideration and recommendation to the City Council.
 - The City will inform CCC regarding any recommended changes in the Planning Commission recommendation.
 - Deliverables:
 - LCP-LUP amendment submitted and adopted by the Planning Commission.
 - Task 5.3: Manhattan Beach City Council Public Review and Submit to CCC
 - Objectives:
 - The Final draft LCP-LUP and Planning Commission recommendation will be presented to City Council for consideration.
 - The professional consultant will assist with public hearings.
 - Following the City Council approval of the LCP-LUP and authorizing to submit, the plan will be submitted to CCC for review and consideration. Completion of this task does not require the CCC to have approved the LCP-LUP update.
 - The City will submit the draft LCP-LUP documents (text, maps, and/or exhibits) to CCC staff in paper hardcopy as well as an electronic copy in permanent format (such as an Adobe Acrobat .pdf file) and one electronic copy in an editable format (such as in Microsoft Word .doc).
 - Deliverables:
 - LCP-LUP amendment package prepared and finalized for submittal to the City Council.

Task 6. AGENCY AN REGIONAL STAKEHOLDER COORDINATION

- Task 6.1: Coordination with CCC staff

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- Objectives: The City will continue to hold regular coordination meetings (phone or in-person) with Coastal Commission district staff on a monthly basis, or as needed.
- Deliverable: Coordination meetings, comment review meetings, etc.
- Task 6.2 Regional and LCP Planning Grant Coordination
 - Objectives: The City will coordinate and share information and lessons learned as appropriate with other LCP planning grant recipients, regional local coastal jurisdictions, and stakeholders. This includes participating in webinars, regional workshops, and scheduling coordination meetings as needed.
 - Deliverable: Updated draft documents; Notes from meetings.

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C. SCHEDULE

Project start date: 2/1/2019 or upon grant execution

Project end date: 12/31/2020

Task 1. Project Initiation	Projected start/end dates: 2/1/2019-8/1/2019
1.1 Project Initiation and RFP Outcome/Deliverables: RFP, professional consultant contract, updated work program and schedule, team kick-off meeting agenda, CCC coordination meeting agenda, webpage	Projected start/end dates: 2/1/2019-8/1/2019
Task 2. Sea Level Rise Vulnerability & Risk Assessment	Projected start/end dates: 2/1/2019-1/31/2020
2.1 SLR Research Outcome/Deliverables: Memo incorporating available information to identify key issues including maps, GIS layers, graphics, figures, baseline conditions, planning hazards, SLR projections, time horizons, etc.	Projected start/end dates: 2/1/2019-4/1/2019
2.2 Draft SLR Risk & Vulnerability Assessment Outcome/Deliverables: <i>Draft</i> SLR Vulnerability Assessment incorporating the objectives and analyses above; Six week CCC review period and incorporation of CCC edits into Sea Level Rise Risk, Hazards, and Vulnerability Assessment.	Projected start/end dates: 4/1/2019-9/1/2019
2.2 Final SLR Risk & Vulnerability Assessment Outcome/Deliverables: Second Draft SLR Risk, Hazards, & Vulnerability Assessment incorporating deliverables from Tasks 2.3 and 2.4 and CCC edits of Tasks 2.2, 2.3, and 2.4 ; Six week CCC review period and incorporation of CCC edits into Final Sea Level Rise Risk, Hazards, and Vulnerability Assessment.	Projected start/end dates: 1/31/2020- 3/1/2020
2.3 USGS Groundwater-SLR Hazard Analysis Outcome/Deliverables: USGS groundwater-SLR hazard maps	Projected start/end dates: 5/1/2019-9/1/2019

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<p>demonstrating water table elevations with associated sea level rise projects; Table and associated GIS shapefile that identifies subterranean City assets and their vulnerability to water table shoaling as well as locations of potential backshore water table surfacing; Draft USGS Groundwater-SLR Hazard Analysis summary report including a description of the research and analysis; Six week CCC review period and incorporation of CCC edits into USGS Groundwater-SLR Hazard Analysis; USGS Groundwater-SLR Hazard Analysis summary report incorporated into the Sea Level Rise Risk, Hazards, and Vulnerability Assessment (Deliverable 2.2).</p>	
<p>2.4 Confluence Modeling on Stormwater Infrastructure Outcome/Deliverables: Table and associated GIS shapefile that identifies subterranean City assets and their vulnerability to water table shoaling as well as locations of potential backshore water table surfacing; Confluence Modeling on Stormwater Infrastructure summary report including a description of the research and analysis; Six week CCC Review Period and incorporation of CCC edits into Confluence Modeling on Stormwater Infrastructure report; Confluence Modeling on Stormwater Infrastructure report incorporated into the Sea Level Rise Risk, Hazards, and Vulnerability Assessment.</p>	<p>Projected start/end dates: 7/1/2019-1/31/2020</p>
<p>Task 3. Sea Level Rise Adaptation Plan</p>	<p>Projected start/end dates: 8/1/2019-5/1/2020</p>
<p>3.1 SLR Adaptation Research & Impacts Outcome/Deliverables: Outline of SLR adaptation measures and strategies.</p>	<p>Projected start/end dates: 8/1/2019-10/1/2019</p>
<p>3.2 SLR Adaptation Plan Outcome/Deliverables: First draft Sea Level Rise Adaptation Plan for CCC review; Six</p>	<p>Projected start/end dates: 10/1/2019- 5/1/2020</p>

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<p>week CCC Review Period and incorporation of CCC edits into second draft for stakeholder workshops; Third draft Sea Level Rise Adaptation Plan with incorporation of community input from stakeholder workshops; Final Sea Level Rise Adaptation Plan</p>	
<p>Task 4. Develop LCP LUP Language</p>	<p>Projected start/end dates: 3/1/2020-12/31/2020</p>
<p>4.1 Preparation of LCP LUP Annotated Outline Outcome/Deliverables: Draft Annotated LCP Land Use Plan Outline; Six week CCC Review Period and incorporation of CCC edits into Annotated LCP Land Use Plan Outline; Final Annotated LCP Land Use Plan Outline.</p>	<p>Projected start/end dates: 3/1/2020-5/1/2020</p>
<p>4.2 LCP Land Use Plan Update Outcome/Deliverables:</p>	
<p>LCP-LUP DELIVERABLES</p>	<p>DATES</p>
<p>DRAFT 1 (Chapters) - Drafts of chapters of the Manhattan Beach LCP Land Use Plan will be written by consultant and reviewed by planning staff, with batches composed of 2-3 chapters at a time (up to 3 batches)</p>	<p>Batch 1 4/1/2020-5/1/2020 Batch 2 5/1/2020-6/1/2020 Batch 3 6/10/2020-7/10/2020</p>
<p>CCC Review - 4-6 weeks review per batch and consultant incorporates CCC edits into second draft of updated chapters of the Manhattan Beach LCP Land Use Plan</p>	<p>Batch 1 5/1/2020-6/1/2020 Batch 2 6/1/2020-7/10/2020 Batch 3 7/10/2020 – 8/21/2020</p>
<p>Full DRAFT 2 - Second draft of updated chapters of the Manhattan Beach LCP Land Use Plan will be completed by consultant, incorporating CCC and planning staff edits.</p>	<p>6/1/2020-9/18/2020</p>
<p>CCC Review – City will share complete full draft 2 of the updated chapters with CCC for review</p>	<p>9/18/2020-10/19/2020</p>

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<p>City/consultants incorporate CCC edits into draft 3 for Planning Commission submittal.</p>	<p>10/19/2020-11/1/2020</p>
<p>DRAFT 3 to PLANNING COMMISSION for adoption. Updated chapters of the Manhattan Beach LCP Land Use Plan submitted to Planning Commission for adoption (Task 5.2)</p>	<p>11/2020 Planning Commission</p>
<p>CCC Review - City will share updated draft adopted by the Planning Commission with CCC prior to City Council adoption if there are changes made by the Planning Commission.</p>	<p>11/15/2020-12/31/2020</p>
<p>Projected start/end dates: 5/1/2020- 12/31/2020</p>	
<p>Task 5. Public Process & Outreach</p>	<p>Projected start/end dates: 2/1/2019-12/31/2020</p>
<p>5.1 Community Outreach & Education Outcome/Deliverables: Four Stakeholder workshops focused on SLR science and impacts (Task 2), vulnerabilities in the community (Task 2), and adaptation options (Task 3). Agendas and notes will be documented; City social media postings on SLR and workshops; Senior-focused workshop at "Dine 'N Discover" luncheon on SLR science and impacts, vulnerabilities in the community, and adaptation options. Agendas and notes will be documented; Youth-focused workshop in partnership with the Sustainability Youth Council on SLR science and impacts, vulnerabilities in the community, and adaptation options. Agendas and notes will be documented; Four advertisements in local papers inviting the public to attend workshops; City news stories posted on SLR science and impacts, vulnerabilities in the community, and</p>	<p>Projected start/end dates: 2/1/2019-12/31/2020</p>

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<p>adaptation options; At least 10 Virtual Reality (VR) visualizations, available via the internet, or in person using a VR headset; 10 planned VR interactions with stakeholders comprised of four SLR-focused workshops and outreach at existing community events such as the Manhattan Beach Hometown Fair, Earth Month, Sustainability Task Force meetings, Senior Dine 'N Discover, Sustainability Youth Council, etc.; Updated Manhattan Beach SLR Adaptation Plan reflecting community input.</p>	
<p>5.2 Planning Commission Public Review Outcome/Deliverables: LCP-LUP amendment submitted to and adopted by the Planning Commission.</p>	<p>Projected start/end dates: 11/2020</p>
<p>5.3 Manhattan Beach City Council Review and Submit to CCC Outcome/Deliverables:</p>	
<p><u>Final Draft LCP-LUP amendment package prepared and finalized for submittal to City Council</u></p>	<p>12/1/2020-12/31/2020</p>
<p><i>Final Draft LCP-LUP amendment adopted by the City Council.</i></p>	<p><i>1/1/2021-1/31/2021 (outside the grant term)</i></p>
<p>Task 6. Agency & Regional Coordination</p>	<p>Projected start/end dates: 2/1/2019-12/31/2020</p>
<p>6.1 Coordination with CCC Staff Outcome/Deliverables: Coordination meetings, comment review meetings, etc.</p>	<p>Projected start/end dates: 2/1/2019-12/31/2020</p>
<p>6.2 Regional and LCP Grant Coordination Outcome/Deliverables: Updated draft documents; notes from meetings</p>	<p>Projected start/end dates: 2/1/2019-12/31/2020</p>
<p>6.3 Continued coordination with CCC Staff to ensure deliverables from Task 5.3 are met outside the grant term</p>	<p>Projected start/end dates: 1/1/2021-1/31/2021 (outside the grant term)</p>

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D. BENCHMARK SCHEDULE

ACTIVITY	COMPLETION DATE
Contract Complete; Notice to Proceed	2/1/2019
Consultants hired	8/1/2019
Draft Sea Level Rise Vulnerability & Risk Assessment	8/1/2019
USGS Groundwater & SLR Hazard Analysis Report	9/1/2019
Confluence Modeling on Stormwater Infrastructure Report	1/31/2020
Final SLR Vulnerability & Risk Assessment with Groundwater and Stormwater Reports	3/1/2020
Final Sea Level Rise Adaptation Plan	5/1/2020
Draft LCP Land Use Plan	10/1/2020
Planning Commission Adoption	11/30/2020
LCP-LUP Amendment Package for City Council	12/31/2020
Community Outreach & Education	12/31/2020
City Council Approval and Submittal to CCC	1/31/2021 (Outside grant term)