

FY 2018-19
CALTRANS ADAPTATION PLANNING GRANT APPLICATION

PROJECT TITLE	Hayward Shoreline Master Plan
PROJECT LOCATION (city and county)	City of Hayward, Alameda County

	APPLICANT	SUB-APPLICANT	SUB-APPLICANT
Organization	Hayward Area Shoreline Planning Agency		
Mailing Address	777 B St. Hayward CA		
City	Hayward		
Zip Code			
Executive Director/designee and title	Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/> Al Mendall, HASPA Board Trustee	Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/>	Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/>
E-mail Address	Al.Mendall@hayward-ca.gov		
Contact Person and title	Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/> Jay Lee, Associate Planner	Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/>	Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/>
Contact E-mail Address	Jay.Lee@hayward-ca.gov		
Phone Number	(510) 583-4207		

FUNDING INFORMATION
Use the Match Calculator to complete this section.
Match Calculator

Grant Funds Requested	Local Match - Cash	Local Match - In-Kind	Total Project Cost
\$ 509,000	\$ 175,000	\$	\$ 684,000

Specific Source of Local Cash Match
(i.e., local transportation funds, local sales tax, special bond measures, etc.)

Staff time

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LEGISLATIVE INFORMATION*			
Please list the legislative members in the project area. Attach additional pages if necessary			
State Senator(s)		Assembly Member(s)	
Name(s)	District	Name(s)	District
Senator Bob Wieckowski	10	Assembly Member Bill Quirk	20
	-		-
	-		-
	-		-
	-		-
	-		-

***Use the following link to determine the legislators.**
<http://findyourrep.legislature.ca.gov/> (search by address)

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1. Project Description (100 words maximum): Briefly summarize project.

The Hayward Shoreline ("Shoreline") is vulnerable to inundation by sea level rise (SLR) that could impact critical infrastructure such as wastewater infrastructure, the eastern approach to the San Mateo-Hayward Bridge (State Route 92 [SR 92]), landfills, the Bay Trail, the Hayward Shoreline Interpretive Center (HSIC), business parks, residential neighborhoods, marshes and managed ponds. This project will improve Hayward's capacity to plan for, prepare for, mitigate against, and adapt to SLR. The Hayward Regional Shoreline Master Plan ("Plan") will incorporate input from community members and decision-makers. It will include a suite of mitigation actions and policy recommendations that prepare for SLR.

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2. Project Justification (Do not exceed the space provided.): Describe the problems or deficiencies the project is attempting to address, as well as how the project will address the identified problems or deficiencies. Additionally, list the ramifications of not funding this project.

The Hayward Area Shoreline Planning Agency (HASPA) was established in 1970. HASPA is a joint powers agency of representatives from the East Bay Regional Park District (EBRPD), Hayward Area Recreation and Park District (HARD), and the City of Hayward. The primary purpose of HASPA is to coordinate agency planning activities and adopt and carry out policies for the improvement of the Shoreline for future generations. Without climate adaptation planning, critical transportation systems such as the eastern approach to the Hayward-San Mateo Bridge (SR 92), and the San Francisco Bay trail along the Shoreline will be vulnerable to flooding from SLR and coastal storm surge. Currently due to high tides and storm surges the San Francisco Bay Trail is being flooded two to three times annually. In addition, there is a paved pedestrian bridge over SR 92 that is part of the San Francisco Bay Trail. Sections of the Bay Trail in Hayward provide \$490,000/ yearly in recreation benefits to the local and regional economy (Hayward Shoreline Resilience Study). The entrance to SR 92 was highlighted in the Caltrans Vulnerability assessment as a road at risk of flooding due to sea level rise. SR 92 is used by 86,000 passengers, 1,600 transit riders and 6,000 trucks daily. Thus, flooding of this bridge will decrease regional mobility and result in increased congestion on the Dumbarton Bridge which is also susceptible to inundation from SLR. Caltrans estimates that replacing SR 92 will cost \$45-132 million dollars (Hayward Shoreline Resilience Study).

These preserved lands, owned by EBRPD, HARD, the City of Hayward, and the US Fish and Wildlife Service, were intended to provide recreational opportunities to the public and protect the habitats of sensitive wetlands and marsh species. As the sea level begins to rise, they have also come to serve as the City's first line of defense against storm surge and high tides. Formerly the site of salt ponds, earthen levees initially protected the Shoreline. Higher tides and more frequent periods of inundation have overtopped the aging levees, leading to further erosion and sedimentation of the area. As a result, HASPA's focus has shifted from the shoreline preservation achieved over the past five decades to mitigating the effects of sea level rise on the area's natural, recreational, and man-made resources.

Important natural and community assets are vulnerable to flooding as the sea level rises, absent effective mitigation strategies. The HSIC, Don Edwards San Francisco Bay National Wildlife Refuge, and miles of shoreline trails, including segments of the San Francisco Bay Trail, provide educational and recreational opportunities for community members. Industrial businesses, a main source of revenue for the City, about the wetlands and include many sites that utilize or process hazardous materials in their operations, which could contaminate bay water in the event of a flood. The City's Water Pollution Control Facility is located along the Shoreline and may experience flooding to emergency storage ponds and impacts to equipment or infrastructure caused by subsidence or uplift as the water table rises. The approach to the San Mateo-Hayward Bridge along SR 92, a major high-volume thoroughfare connecting Alameda County and Silicon Valley, will experience periodic flooding as well as erosion and deterioration due to sea level rise. Stretches of Union Pacific Railroad track running through Hayward are at risk of inundation at as low as one foot of sea level rise. Hayward residences are also at risk of sea level rise – particularly several South Hayward mobile home parks, located adjacent to engineered creeks, which house some of the City's most vulnerable residents.

While many studies have provided assessments of the risk of SLR to the Shoreline and surrounding community, no study has prescribed mitigation measures, policy recommendations, or zoning changes specific to the various habitats, recreational resources, and infrastructure located in areas at risk of flooding or permanent inundation. These studies have not incorporated the knowledge and opinions of community members and elected officials. Staff at HASPA member agencies have neither the capacity nor the expertise to identify the appropriate mitigation measures; nor do they have the capacity to educate members of the community on the benefits, costs, and tradeoffs associated with alternative courses of action to gather meaningful community input on the subject. HASPA and its member agencies have identified the need for a comprehensive integration of the latest climate science, existing shoreline asset GIS data, and robust community and decision maker input to produce a plan for mitigating sea level rise along the Shoreline.

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3. Grant Specific Objectives (Do not exceed the space provided.): Explain how the proposed project supports the related State initiatives and priorities (as applicable) identified on pages 3 – 4. Furthermore, explain how the proposed project addresses the grant specific objectives listed on page 5.

HASPA's proposed long-term sea level rise adaptation plan supports several state initiatives and priorities in the following ways:

- Executive Order S-13-08: HASPA will assist state agencies in planning for SLR and climate impacts through implementing a local SLR adaptation plan.
- Executive Order B-30-15: HASPA will assist state agencies by prioritizing natural infrastructure adaptation strategies within the Plan.
- California Transportation Plan (CTP) 2040: The Plan will help Caltrans ensure the safety and reliability goals of the CTP by protecting SR 92. Investment in adaptation planning for the Shoreline will cost much less than reactive investment later when the highways are flooded.
- Regional Transportation Plan Guidelines: HASPA creating a local climate change adaptation plan follows the San Francisco Bay Area Regional plan: Plan Bay Area 2040 which highlights the importance of using natural infrastructure to help be resilient to SLR impacts across the Bay.
- 2017 General Plan Guidelines: The City of Hayward's General Plan calls for the formation of a SLR adaptation plan. With grant funds the Plan will be able to be created and integrated with the General Plan following SB 379.
- Integrate Climate Adaptation and Resiliency Program (ICARP): HASPA will make it a priority to meet the required reporting to ICARP Technical Advisory Council. The Plan could serve as resource for other cities that are just starting to think about climate adaptation.
- Addressing Disadvantaged Communities: The Shoreline serves a large concentration of economically disadvantaged communities nearby in the City of Hayward and other cities in the region. The San Francisco Bay Conservation and Development Commission (BCDC) Adapting to Rising Tides (ART) Program developed 10 community indicators for flood risk (language, vehicle access, housing cost, race/ethnicity, education, housing tenure, transportation cost, income, elderly population, and youth population) for the nine Bay Area counties. Nearly all the nearby residential communities, which are the primary users of the Shoreline, exhibit multiple community indicators for flood risk. Furthermore, the California Environmental Protection Agency (CalEPA)'s CalEnviroScreen scores the Shoreline among the highest areas disproportionately burdened by multiple sources of pollution in the entire Bay Area.
- Public Health: The Plan will address impacts related to flooding damage to facilities and amenities essential for maintaining public health. The City's Water Pollution Control Facility (WPCF) is located along the Shoreline and may experience flooding to emergency storage ponds and impacts to equipment or infrastructure caused by subsidence or uplift as the water table rises, which could impact water quality. Additionally, if the closed landfills cannot be protected, it would create a significant financial liability for the City of Hayward if they must be removed. Furthermore, the Plan will encourage active transportation and recreation by protecting pedestrian and bicycle facilities within the Shoreline area.
- Natural Ecosystems: If effective adaptation strategies are not taken, important natural assets along the shoreline will be vulnerable to inundation as the sea level rises. The wetlands along the Shoreline consist of salt, fresh, brackish, and tidal ponds that provide a habitat for a diversity of sea life, plants, and animals including the Salt Marsh Harvest Mouse, Western Snowy Plovers, California Clapper Rail, and other shorebirds using the Shoreline. The Plan will evaluate habitat restoration as one of the actions required to increase the resilience of the natural habitats of the environment.
- Air Quality: By helping to protect the Bay Trail and promote alternative routes of transit such as biking or walking along the trail will lead to reducing VMT and therefore improving air quality in Hayward and surrounding cities. The City of Hayward is currently creating a new Bike-Ped plan which will also incorporate promoted use of the Bay Trail.

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Grant Specific Objective (Continued - Do not exceed the space provided.)

- Social Equity: The Shoreline serves a large concentration of economically disadvantaged communities, including those that are transit vulnerable. Several South Hayward mobile home parks located adjacent to engineered creeks, which house some of the City's most vulnerable residents, are also at risk. The Plan will ensure that the Shoreline continues to be accessible to these communities and buffer them from direct SLR impacts. The City will also engage these communities throughout the development of the Plan to ensure their concerns are considered.
- Economy: The Shoreline and the Bay Trail provide \$490,000 yearly in recreation benefits to the local and regional economy (Hayward Shoreline Resilience Study). Additionally, the HSIC generates more than \$60,000 annually in revenue for HARD and employs nine naturalists. If the HSIC is temporarily or permanently closed, this revenue and the jobs the center provides would be diminished or lost. Furthermore, the Plan will protect the City's Industrial Technology and Innovation Corridor, which is vulnerable to SLR and would experience significant economic hardship if resilience along the Shoreline is not improved.
- Reductions in GHG: As discussed earlier, the Plan will encourage active transportation and include habitat restoration alternatives, which will reduce GHG emissions in the long run.

The Plan will research adaptation methods that will protect the Shoreline from SLR impacts and enhance the Shoreline by focusing on how to best protect the wetlands to help them maintain natural flood protection benefits for nearby transportation assets. The Plan will recommend near term and future actions that can be implemented to protect the Shoreline for future generations.

The project area includes both the approach to the San Mateo-Hayward Bridge along SR 92 and the Bay Trail. The approach to the San Mateo-Hayward Bridge along SR 92 will experience periodic flooding as well as erosion and deterioration due to SLR. When combined with the lack of adequate alternative routes, the severity of SR 92's vulnerability to inundation is increased because it is a commuter route. SLR will also increase the frequency of overtopping levees and result in parts of the Bay Trail being inundated and unable to be utilized by commuters. Many of these levees are not up to FEMA standards since they were built for salt production and not to protect the area from SLR. The Bay Trail is of great value to the region from a recreational and public health perspective and provides a valuable commuting route for local populations in low car ownership areas. Additionally, stretches of Union Pacific Railroad track running through Hayward are at risk of inundation at as low as one foot of SLR. The Plan will prioritize protecting these vulnerable but locally and regionally important transportation assets into the future. HASPA will collaborate with Caltrans in developing adaptation alternatives related to SR 92.

Hayward's network of marshes is a significant part of the flood protection for industrial development along the western edge of the city. If this flood protection is lost, property damage and service disruptions to industrial and commercial properties would lead to local economic damage due to recovery costs and lost productivity. The Oliver Salt Ponds buffer the SR 92 approach from wave erosion. Even a temporary closure of the road would have significant impacts on regional commuter movement since there is no local alternative.. Additionally, Cogswell Marsh is the first line of defense against coastal flooding of commercial and industrial area including the WPCF. Storm event and SLR flooding could increase operations and maintenance and capital improvement costs. The WPCF serves many local industrial businesses, so in addition to a potential threat to human health and safety, disruption of the plant would trigger additional losses to these businesses and their employees. The Plan will emphasize natural flood and SLR protection to protect essential biological resources while also protecting the economic vitality of the surrounding commercial and industrial area and larger Bay Area region.

This project will increase community understanding of climate change impacts through conversations about future sea levels and the mitigation actions necessary to protect the Shoreline and adjacent communities. Throughout the process of developing the Plan, HASPA intends to engage with a variety of stakeholders including but not limited to: (1) Property and business owners, (2) Caltrans, (3) BCDC, (4) East Bay Dischargers Authority (EBDA), (5) Alameda County Flood Control & Water Conservation District (ACFCWCD), (6) California Department of Fish and Wildlife (DFW), (7) Bay Area Climate Literacy Collaborative (Bay-CLIC), (8) Coastal Hazards Adaptation Resiliency Group (CHARG), (9) Climate Readiness Institute (CRI), and (10) Association of Bay Area Governments (ABAG) (San Francisco Bay Trail Division).

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4. Project Management

- A. Scope of Work in required Microsoft Word format
- B. Project Timeline in required Microsoft Excel format

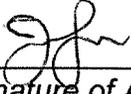
See Scope of Work and Project Timeline samples and checklists for requirements (Grant Application Guide, Pages 26-32), also online at: <http://www.dot.ca.gov/hq/tpp/grants.html>

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Application Signature Page

If selected for funding, the information contained in this application will become the foundation of the contract with Caltrans.

To the best of my knowledge, all information contained in this application is true and correct.
If awarded a grant with Caltrans, I agree that I will adhere to the program guidelines.



Signature of Authorized Official (Applicant)

Associate Planner

Title

Jay Lee

Print Name

2/23/18

Date

Signature of Authorized Official (Sub-Applicant)

Print Name

Title

Date

Signature of Authorized Official (Sub-Applicant)

Print Name

Title

Date

Scope of Work Checklist

The Scope of Work is the official description of the work that is to be completed during the contract. **The Scope of Work must be consistent with the Project Timeline. Applications with missing components will be at a competitive disadvantage.** Please use this checklist to make sure your Scope of Work is complete.

The Scope of Work must:

- Use the Fiscal Year 2018-19 template provided and in Microsoft Word format
- List all tasks and sub-tasks using the same title as stated in the project timeline
- Include task and sub-task numbers in accurate and proper sequencing; consistent with the project timeline
- List the responsible party for each task and subtask and ensure that it is consistent with the project timeline (i.e. applicant, sub-applicant, or consultant)
- Include a thorough Introduction to describe the project and project area demographics, including a description of the disadvantaged community involved with the project, if applicable
- Include a thorough and accurate narrative description of each task and sub-task
- Include a task for a kick-off meeting with Caltrans at the start of the grant
- Include a task for procurement of consultants, if consultants are needed
- Include a task for invoicing
- Include a task for quarterly reporting to Caltrans
- Include detailed public participation and services to diverse communities
- Include project implementation/next steps
- List the project deliverable for each task in a table following each task and ensure that it is consistent with the project timeline
- EXCLUDE environmental, complex design, engineering work, and other ineligible activities

SCOPE OF WORK: Hayward Shoreline Master Plan

The City of Hayward is home to the Hayward Regional Shoreline (“Shoreline”), which is a low-lying shoreline vulnerable to inundation by sea level rise (SLR). It is not a question of whether the Shoreline will be impacted by SLR but a question of when SLR will cause flooding and harm to various vital recreational, transportation, and ecological assets. These critical assets are not limited to but include a regional wastewater treatment plant, the eastern approach to the San Mateo-Hayward Bridge (State Route 92 [SR 92]), closed landfills, the San Francisco Bay Trail, the Hayward Shoreline Interpretive Center (HSIC), industrial properties, residential neighborhoods, and tidal marshes and managed ponds that support Bay species and provide other ecosystem services along the shoreline. If nothing is done to protect the vulnerable shoreline these assets will not only experience an increase in temporary flooding, they will be fully inundated in the future.

The California Ocean Protection Council Science Advisory Team’s updated report on SLR suggests that the Bay Area will very likely experience 12 inches of SLR by 2100 and could experience up to 10 feet of SLR by 2100 depending on rates of West Antarctic ice sheet loss ([Rising Seas in California](#)). Even a small amount of SLR with a king tide or extreme storm will result in significant flooding of critical assets along the Hayward Shoreline. If no effective adaptation measures are taken, under a 12-inch SLR scenario, which could occur as early as 2050, Cogswell Marsh, Triangle Marsh, and HARD Marsh are predicted to be fully inundated due to SLR.

The eight marshes along the shoreline provide natural flood protection for critical transportation assets such as the entrance to the SR 92 and the San Francisco Bay Trail. With rising sea levels and stronger storm events the San Francisco Bay Trail is being flooded two to three times annually. In addition to providing flood protection, the HSIC utilizes the marshes to educate Bay Area residents about the San Francisco Bay. Without planning for and implementing adaptation measures, many of the tidal marshes and managed wetlands will be inundated by 2050 and the Bay Trail will increasingly not be accessible to the thousands of visitors.

Since more than 50% of Hayward school children are in low income families, loss of these wetlands will cause this disadvantaged community to lose access to participate in the HSIC’s shoreline educational programs and they in turn will not be able to share what they learn about not polluting the Bay and creeks with others.

The Hayward Area Shoreline Planning Agency (HASPA), which is a joint powers authority including the City of Hayward, Hayward Area Recreation and Park District (HARD), and East Bay Regional Parks District (EBRPD, has already had two vulnerability assessments for the Shoreline completed that will help inform the Hayward Shoreline Master Plan (“Plan”). In 2010 a [Preliminary Study](#) was done that outlines four long-term adaptation strategies that can be implemented to protect critical assets in Hayward. Then, in 2014 the Hayward Resilience Study described specific vulnerabilities and suggested landscape-scale adaptation responses. The Hayward Resilience Study was an extension of the Adapting to Rising Tides Project, was led by BCDC in partnership with the NOAA Coastal Services Center and with assistance from ICLEI

Local Governments for Sustainability, Metropolitan Transportation Commission, and California Department of Transportation.

The Plan will build off these past studies and add to the research by studying how groundwater, rain, and other factors not included in past studies will increase flooding due to SLR in Hayward. Throughout the creation of the Plan, HASPA will collaborate with East Bay Dischargers (EBDA), Alameda County Flood Control and Water Conservation District (ACFCWCD), CA Fish and Wildlife to discuss opportunities for long-term multi-benefit shoreline protection approaches. In addition, HASPA will continue working with the Bay Area Adapting to Rising Tides regional working group. As HASPA creates the Plan it will consider how armoring Hayward will impact other cities in the Bay Area. SLR planning needs to incorporate county and state-wide cooperation. Studies are currently being done investigating the impact if certain counties protect themselves against SLR, how it could increase flooding in nearby counties. The Plan will focus on assets that will be impacted in the near-term and long-term and suggest implementation actions to protect these assets. Adaptation approaches will be evaluated on how flexible they are able to improve as time goes on to provide long-term resilience. The Plan will result in suggestions of how to implement adaptation efforts to protect and enhance resilience for vital transportation infrastructure including SR 92 and the Bay Trail, business and residential properties, and park and open space opportunities including the Bay Trail, Sky West Golf Course, Alden Oliver Sports Park, and the San Lorenzo Community Center and Park; enhancement of natural flood protection; and a long term strategy to protect the HSIC.

SLR is a slow impact that will be happen over time and HASPA is creating the Plan to prepare for and mitigate against this climate change impact. The Plan area is in Hayward, California, between Sulphur Creek and Alameda Creek along the eastern shoreline of the San Francisco Bay. The Plan will be used to evaluate how different adaptation actions can protect the shoreline in the short and long-term. HASPA intends to gather public input through interactive community workshops which will be a large contributing factor of the planning process. The Plan will contain conceptual designs that will later lead to implementation and development.

The scope of work shown below reflects the anticipated process and deliverables for the Plan. Although the scope of work and budget do not include the required California Environmental Quality Act (CEQA) analysis, HASPA will hire a CEQA consultant to complete an Environmental Impact Report (EIR). The EIR work will be performed after the development of the Plan but prior to adoption of the Plan because the analysis will depend on the content of the Plan. The time required to complete the CEQA process is built into the project timeline.

RESPONSIBLE PARTIES:

HASPA is a collaborative partnership of the City of Hayward, HARD and EBRPD. HASPA has been in existence since 1970 and renewed its joint powers agreement in 2015 with the expressed intent of addressing SLR. HASPA intends to use this project to expand on its long history of collaboration by working closely with a wide variety of local, regional, state, and federal agencies.

OVERALL PROJECT OBJECTIVES:

The product of this project will be a Hayward Shoreline Master Plan that includes:

- Models of SLR based on the most recently available climate science that projects anticipated inundation zones and threats to existing and future shoreline assets and identifies the characteristics of the communities most impacted by SLR.
- Creating and siting recommended shoreline zoning overlays to ensure future shoreline development is resilient to SLR.
- Identifying mitigation measures to protect natural and manmade shoreline resources against SLR.
- Identifying additional policy and programmatic recommendations for preventing future flooding resulting from SLR.

The short-term project goals and objectives beyond the main deliverables include:

- Increasing community understanding and awareness of climate change impacts through conversations about future sea levels and the mitigation actions necessary to protect the shoreline and adjacent communities.
- Improving community capacity to plan, prepare for, and adapt to SLR.
- Providing a platform for conversations with community members and decision makers about the costs, benefits, and tradeoffs of various mitigation actions.
- Creating a list of shovel-ready projects that can be funded by future grant opportunities.
- Developing a suite of SLR mitigation activities that have applicability to shorelines similar to Hayward's in other parts of the Bay Area.

The expected outcomes will enhance Hayward's resilience to the impacts of extreme weather and climate-related hazards including King Tides and storm surge. The Plan will consider protection or possible relocation of key assets and new policies and zoning regulations that will help to permanently protect properties and communities.

1. Project Initiation

Task 1.1: Project Kick-off Meeting

- HASPA will hold a kick-off meeting with Caltrans staff to discuss grant procedures and project expectations including invoicing, quarterly reporting, and all other relevant project information. Meeting summary will be documented. Meeting summary will be documented.
- Responsible Party: HASPA

Task 1.2: RFP for Consultant Services

- The project will begin in October 2018 with the preparation and issuance of a Request for Proposals for planning consultant services. By January 2019, staff from the City, EBRPD, and HARD tasked with supporting the project will select and hire a consultant team to execute the planning process.
- Responsible Party: HASPA

Task 1.3 Meeting with Staff and Consultant Team

- The Consultant Team will participate in a meeting with City, EBRPD, and HARD staff to establish expectations, finalize timelines.
- Develop a comprehensive and diverse contact list of potential participants for personal and small group interviews that includes public officials, representatives from special districts and regional agencies, local community groups, service organizations, businesses, neighborhood groups, developers, local colleges, and other interest groups.
- Responsible Party: HASPA and Consultant

Task 1.4: Background Report Work

- Develop a survey instrument and protocol aimed at gathering key input while not posing a burden to respondents. The survey will employ open-ended questions which enable the interviewee to drive the process in a conversational style. This method is extremely effective at gathering accurate data and helping create a connection between the project and the community.
- Conduct individual and small group interviews throughout the community and follow up interviews on the phone and via email, as needed, to achieve the target minimum of twenty (20) interviews.
- Summarize the findings of the interviews in a Stakeholder Interview Summary, a concise memo that assesses the type or affiliation of participants in the interviews, number of interviews conducted, and responses to individual survey questions.
- Produce a final version of the Stakeholder Interview Summary, which will be appropriate for posting (excerpt or in its entirety) on the website, web page and/or on project-related social media.
- Responsible Party: Consultant

Task 1.5: Community Outreach Plan (COP)

- Develop a comprehensive Community Outreach Plan (COP) that 1) describes outreach objectives, 2) lists proposed meetings and events, and 3) establishes a tentative schedule.
- Prepare a draft COP for review and comment and finalize the document after one round of revisions.
- Responsible Party: Consultant

Task	Deliverable
<i>1.1</i>	<i>Meeting Notes</i>
<i>1.2</i>	<i>Copy of Procurement Procedures and Executed Consultant Contract</i>
<i>1.3</i>	<i>Meeting Notes</i>
<i>1.4</i>	<i>Stakeholder Interview Summary</i>
<i>1.5</i>	<i>Community Outreach Plan</i>

2. Update Sea Level Rise Modeling and Mapping

Task 2.1: Model sea level rise with groundwater impacts and flooding from rainfall and waves.

- Create models of sea level rise along the Hayward shoreline that include adjusted floodplain and storm surge projections in addition to the most current expected rise in sea

level, which is necessary because current sea level rise projections do not factor in flooding impacts from storm surges.

- Create maps of the Hayward shoreline illustrating anticipated sea level rise and groundwater impacts (which have not been analyzed in current sea level rise studies), areas of expected permanent inundation and at-risk assets highlighting habitats, recreational areas, city-owned properties, infrastructure, healthcare resources, schools, businesses, and residences.
- Responsible Party: Consultant

Task 2.2: Incorporate Overlays and Display on a Web Portal

- Display new maps on a publicly accessible web portal and make them available for download for use as an educational tool and in service of community outreach efforts around the Shoreline Master Plan.
- Responsible Party: Consultant and City of Hayward GIS staff

Task	Deliverable
2.1	<i>New sea level rise maps</i>
2.2	<i>Sea level rise web portal</i>

3. Public Outreach

Task 3.1 Community Workshop #1

- This workshop will introduce the project to the public, define project parameters, inform the community of project opportunities and constraints and solicit opinions from the community to shape Task 5.1, Develop Shoreline Master Plan Concept
- Responsible Party: HASPA & Consultant

Task 3.2: Community Workshop #2

- An interactive workshop that will use clicker technology, and maps to present the master plan concept alternatives. Community will decide on some preferred alternatives. Continue to solicit feedback from the community to shape Task 5.4, Draft Hayward Shoreline Master Plan
- Responsible Party: HASPA & Consultant

Task 3.3: On-line Comment Forum

- The Consultant Team will employ an on-line comment forum, such as Open Town Hall or MySidewalk, to supplement the results of the second community workshop and gather input on the Preferred Alternative. This tool will make it easier for residents to participate in the process, provide another avenue to solicit feedback, and help to cast a wider net to gather input.
- Responsible Party: HASPA & Consultant

Task 3.4: Community Workshop #3

- Present Draft Design Concept and Report and continue to solicit feedback for public comments to shape Task 5.4, Draft Hayward Shoreline Master Plan and Task 5.6, Final Hayward Shoreline Master Plan

- Responsible Party: HASPA & Consultant

Task	Deliverable
3.1	<i>PowerPoint Presentation, Workshop summary, Photos</i>
3.2	<i>PowerPoint Presentation, Workshop summary, Photos</i>
3.3	<i>Summary of online feedback and comments</i>
3.4	<i>PowerPoint Presentation, Workshop summary, Photos</i>

4. Develop Adaptation Responses

Task 4.1: Develop Goals and Policies

- Review preliminary goals and vision for the Master Plan and incorporate community feedback from Workshop #1.
- Responsible Party: HASPA & Consultant

Task 4.2: Develop Adaptation Strategies

- Develop draft adaptation strategies for the identified key planning issues from past vulnerability assessments (Hayward Resilience Study, Preliminary Report) to address underlying vulnerabilities.
- For each adaptation action the consultant will provide a variety of implementation actions.
- Responsible Party: HASPA & Consultant

Task	Deliverable
4.1	<i>Goals and Policies written and revised</i>
4.2	<i>Report on Adaptation Strategies</i>

5. Draft Shoreline Master Plan and Maps

Task 5.1: Develop Shoreline Master Plan Concept

- Based on the existing conditions report and the community input from Workshop #1, a Shoreline Master Plan concept will be developed. The Consultant Team will prepare an illustrated Administrative Draft Master Plan for Staff review and comment.
- The Consultant Team will develop an Adaptation Implementation Plan that identifies feasible actions HASPA can take to implement the adaptation plan.
- Responsible Party: Consultant

Task 5.2: Formulate Alternatives Based on Community Feedback

- The Consultant Team will prepare a Preferred Alternative Framework. The Preferred Alternative will provide the foundation for Master Plan content, including policies and implementation actions. The Framework will describe the Preferred Alternative, guiding principles, and potential development intensities. The Framework will consist primarily of maps, graphics, and images. The alternatives will be prepared and presented at Community Workshop #2.
- Responsible Party: Consultant

Task 5.3 Hold Work Session for HASPA and Other City of Hayward Staff

- The Consultant Team will work with HASPA TAC staff to prepare and hold a work session for HASPA and other City of Hayward Staff
- Responsible Party: Consultant

Task 5.4: First Draft Master Plan

- Based on the preferred design alternative chosen in Workshop #2, a draft report will be prepared. The draft report will be presented at Workshop #3 for public comment.
- Responsible Party: Consultant

Task 5.5: Identify Potential Funding Sources

- Funding sources for projects and improvements may include public bonds, tax credit allocations, grants, and community foundation resources, and contributions from HASPA members.
- Responsible Party: Consultant

Task 5.6: Second Draft Master Plan (Public Review)

- The Consultant Team will prepare a Public Review Draft Master Plan and Code (including maps) based on input from the Task Force, Staff, and public meetings.
- Responsible Party: HASPA & Consultant

Task 5.7: Third Draft Master Plan

- HASPA work session. Four hard copies and four electronic copies of the final report will be submitted to Caltrans. Credit of the financial contribution of the grant program will be credited on the cover of the report.
- Responsible Party: Consultant

Task	Deliverable
<i>5.1</i>	<i>Draft Master Plan and Code</i>
<i>5.2</i>	<i>Preferred Alternative Framework</i>
<i>5.3</i>	<i>Work session notes</i>
<i>5.4</i>	<i>Draft Report</i>
<i>5.5</i>	<i>Funding Source Report</i>
<i>5.6</i>	<i>Public Review Draft Master Plan and Code</i>
<i>5.7</i>	<i>Final Report</i>

6. HASPA Adoption of Final Plan

Task 7.1: Prepare HASPA Staff Report

- HASPA will prepare a staff report.
- Responsible Party: HASPA

Task 7.2: Hold Hearings with HASPA, Hayward City Council, HARD Board of Directors, and EBRPD Board of Directors

- The Consultant Team will prepare for and attend one public meeting before the City Council to present the Final Master Plan and Code for adoption and EIR for certification. The Consultant Team will prepare a brief PowerPoint presentation and, with assistance from HASPA staff and facilitate a discussion with the Trustees on the Final Master Plan, Code, and EIR.
- Responsible Party: HASPA & Consultant

Task	Deliverable
7.1	<i>HASPA Staff Report</i>
7.2	<i>Hearing Draft Master Plan and Code</i>

7. Fiscal Management

Task 8.1: Invoicing

- Submit complete invoice package to Caltrans district staff based on milestone completion at least quarterly.
- Responsible Party: HASPA

Task 8.2: Quarterly Reports

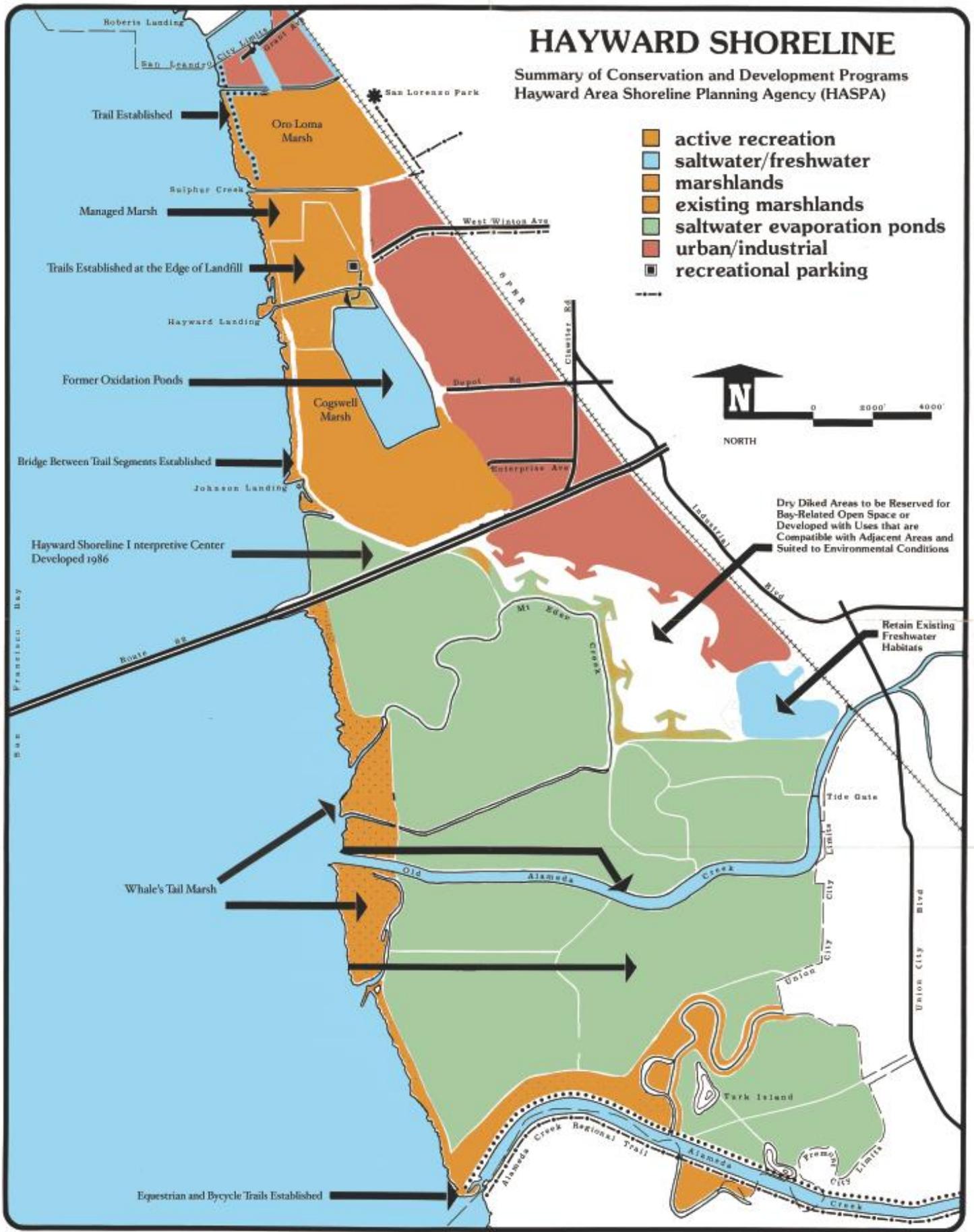
- Submit quarterly reports to Caltrans district staff providing a summary of project progress and grant/local match expenditures
- Responsible Party: HASPA

Task	Deliverable
8.1	<i>Invoice Packages</i>
8.2	<i>Quarterly Reports</i>

HAYWARD SHORELINE

Summary of Conservation and Development Programs
Hayward Area Shoreline Planning Agency (HASPA)

- active recreation
- saltwater/freshwater
- marshlands
- existing marshlands
- saltwater evaporation ponds
- urban/industrial
- recreational parking



Trail Established

Managed Marsh

Trails Established at the Edge of Landfill

Former Oxidation Ponds

Bridge Between Trail Segments Established

Hayward Shoreline Interpretive Center Developed 1986

Whale's Tail Marsh

Equestrian and Bicycle Trails Established

Dry Diked Areas to be Reserved for Bay-Related Open Space or Developed with Uses that are Compatible with Adjacent Areas and Suited to Environmental Conditions

Retain Existing Freshwater Habitats

Robert's Landing
San Leandro
City Limits

San Lorenzo Park

Sulphur Creek

West Winton Ave

Hayward Landing

OPRR

Climax Rd

Depot Rd

Enterprise Ave

Johnson Landing

Industrial Blvd

San Francisco Bay

Route 88

Mt Eden

Yield

Tide Gate

City Limits

Union City Blvd

Alameda Creek Regional Trail

Turk Island

Alameda

Alameda

Alameda

Alameda

Alameda

Alameda

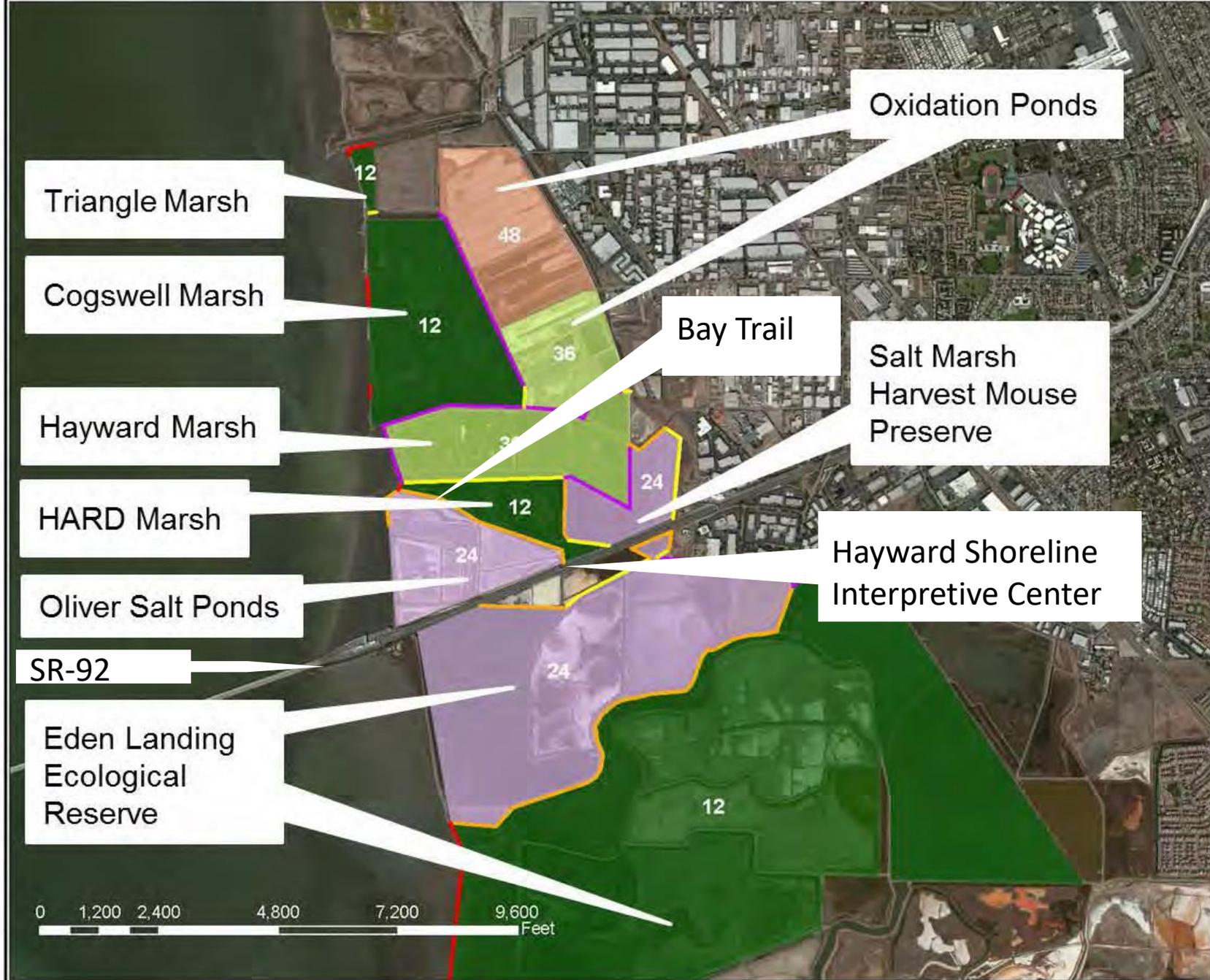
Alameda

Alameda

Alameda

MTC Climate Adaptation Alameda County

Focus Area:
Hayward



Timing of Marsh Inundation

- 12-inch Scenario
- 24-inch Scenario
- 36-inch Scenario
- 48-inch Scenario

Timing of Overtopping

- 12-inch Scenario
- 24-inch Scenario
- 36-inch Scenario
- 48-inch Scenario

Source:
Hayward Shoreline Resilience Study

Note: Numbers denote the first sea level rise scenario that results in inundation (in inches above MHHW).

San Francisco Bay Conservation and Development Commission

455 Golden Gate Avenue, Suite 10600, San Francisco, California 94102 tel 415 352 3600 fax 415 352 3606

February 12, 2018

Jay Lee, Associate Planner
Hayward Area Shoreline Planning Agency
City of Hayward
777 B Street
Hayward, CA 94554

SUBJECT: Caltrans Adaptation Planning Grant from Senate Bill 1
The Road Repair and Accountably Act of 2017

Dear Mr. Lee:

On behalf of the San Francisco Bay Conservation and Development Commission (BCDC) Adapting to Rising Tides Program, I am writing to express my strong support for the Hayward Area Shoreline Planning Agency's (HASPA's) application for the California Department of Transportation (Caltrans) Adaptation Planning Grant. The Commission recognizes the critical need to plan for rising sea levels in the San Francisco Bay, and for adaptation planning processes at all scales.

The Hayward Shoreline is vulnerable to inundation by SLR and coastal storm surge that could impact critical infrastructure and resources such as the eastern approach to the Hayward-San Mateo Bridge, the Bay Trail including the pedestrian bridge over State Route 92, the Hayward Shoreline Interpretive Center, regional wastewater infrastructure, closed landfills, tidal marshes and managed ponds that support Bay species and provide other ecosystem services along the shoreline.

Without climate adaptation planning, critical transportation systems along the Hayward Shoreline will be vulnerable to flooding from SLR and coastal storm surge. The Hayward Shoreline Resilience Study, carried out by BCDC's Adapting to Rising Tides (ART) team in collaboration with HASPA, revealed that the entrance to the Hayward-San Mateo Bridge is at risk of flooding due to sea level rise. The recently released Caltrans Climate Change Vulnerability Assessment for District 4 validated this finding. HASPA's Shoreline Master Plan will address this vulnerability by looking at SR 92 and surrounding areas, including regional mobility and the result in increased congestion on alternate routes.



Mr. Lee
Hayward Area Shoreline
Planning Agency
February 12, 2018
Page 2

The Hayward Shoreline Master Plan is a great fit for the Caltrans Adaptation Planning Grant. This collaborative planning effort will enable adaptation efforts that enhance the resiliency of the transportation system to help protect against climate impacts.

HASPA has shown a great commitment to protecting communities and other assets from future inundation due to sea-level rise. HASPA was one of the first local agencies in the country to address sea level rise with its 2010 report "Preliminary Study of the Effect of Sea Level Rise on the Hayward Shoreline" and has since collaborated with the Commission on additional adaptation studies. HASPA is well positioned to leverage preliminary planning work and partnerships to advance resilience work through this grant.

We look forward to collaborating with HASPA on this important planning effort, the Hayward Shoreline Master Plan, and I strongly support HASPA's proposal.

Sincerely,



CAREY BATHA
Program Manager
Adapting to Rising Tides

BC/cj



February 5, 2018

Hayward Area Shoreline Planning Agency
c/o Jay Lee, Associate Planner
City of Hayward
777 B Street
Hayward, CA 94554

RE: Caltrans Adaptation Planning Grant from Senate Bill 1 - The Road Repair and Accountability Act of 2017

Dear Mr. Lee:

On behalf of Bike East Bay, I am writing to express my support for the Hayward Area Shoreline Planning Agency's (HASPA's) application for the California Department of Transportation (Caltrans) Adaptation Planning Grant. Bike East Bay values the unique opportunities the San Francisco Bay Trail present in terms of green transportation and recreation, and know that to preserve it, we need to plan for resilience in the face of sea level rise (SLR).

The Hayward Shoreline is vulnerable to inundation by SLR and coastal storm surge that could impact critical infrastructure such as the eastern approach to the Hayward-San Mateo Bridge (State Route 92 [SR 92]), the Bay Trail including the pedestrian bridge over SR-92, the Hayward Shoreline Interpretive Center, regional wastewater infrastructure, closed landfills, tidal marshes and managed ponds that support Bay species and provide other ecosystem services along the shoreline.

Without climate adaptation planning, critical transportation systems along the Hayward Shoreline will be vulnerable to flooding from SLR and coastal storm surge. The recently released Caltrans Climate Change Vulnerability Assessment for District 4 highlighted that the entrance to the Hayward-San Mateo Bridge is at risk of flooding due to sea level rise. HASPA's Shoreline Master Plan will address this vulnerability by looking at SR 92 and surrounding areas, including regional mobility and the result in increased congestion on alternate routes.

The Hayward Shoreline Master Plan is a great fit for the Caltrans Adaptation Planning Grant.

PO Box 1736, Oakland, CA 94604
510 845 RIDE (7433) • info@bikeeastbay.org

This collaborative planning effort will enable adaptation efforts that enhance the resiliency of the transportation system to help protect against climate impacts. HASPA has shown a great commitment to protecting communities and other assets from future inundation due to sea-level rise. HASPA was one of the first local agencies in the country to address sea level rise with its 2010 report “Preliminary Study of the Effect of Sea Level Rise on the Hayward Shoreline” and has since collaborated with the Bay Conservation and Development Commission on additional adaptation studies. I strongly support the Hayward Area Shoreline Planning Agency’s proposal to protect the area, including the Bay Trail, from the effects of climate change.

Thank you for supporting this important project.

Sincerely,

A handwritten signature in black ink that reads "Dave Campbell". The signature is written in a cursive style with a large, stylized "D" and "C".

Dave Campbell
Advocacy Director