



DATE: February 16, 2021

TO: Mayor and City Council

FROM: Director of Development Services
Director of Public Works

SUBJECT:
Shoreline Master Plan Adoption: Adopt a Resolution Approving Final Hayward Regional Shoreline Adaptation Master Plan

RECOMMENDATION

That the Council adopts a resolution (Attachment II) approving the Hayward Regional Shoreline Adaptation Master Plan to address the effects of sea level rise along the Hayward shoreline.

SUMMARY

The Hayward Area Shoreline Planning Agency (HASPA) prepared the Hayward Regional Shoreline Adaptation Master Plan (Plan) to make the shoreline more resilient to the effects of sea level rise. The Plan is the culmination of a two-year effort that included significant public outreach and engagement with property owners and public agencies responsible for stewardship of the shoreline area. It includes background information with historical context, mapping of potential inundation with different sea level rise and groundwater emergence scenarios, adaptation strategies, and recommended policies and projects that may be implemented. Staff recommends adopting the Plan.

BACKGROUND

HASPA is a joint powers authority whose mission is to coordinate agency planning activities and plan for sea level rise to ensure the Hayward Regional Shoreline's natural resources and infrastructure are protected for future generations. Established in 1970, HASPA's member agencies are the City of Hayward, the Hayward Area Recreation and Park District (HARD), and the East Bay Regional Park District (EBRPD). The City, HARD and EBRPD each have one Board member serving on the Board of Trustees. In addition, HASPA's Technical Advisory Committee (TAC) is made up of staff from the three member agencies.

HASPA has completed two vulnerability assessments for the shoreline, which identified vulnerable assets and potential adaptation strategies. The *Preliminary Study of the Effect of Sea Level Rise on the Resources of the Hayward Shoreline*, which outlines four long-term adaptation strategies to protect critical assets, was completed in 2010. The *Hayward Resilience Study*, which was an extension of the Adapting to Rising Tides Project led by the San Francisco Bay Conservation and Development Commission (BCDC), was completed in 2014. Both studies are available on the project webpage¹. The Plan builds off these past studies to identify specific adaptation strategies, policies, and design alternatives to protect identified vulnerable assets.

On July 24, 2018², on behalf of HASPA, Council authorized the receipt of grant funds from Caltrans to prepare the Plan. On December 18, 2018³, Council authorized, on behalf of HASPA, a contract with SCAPE. SCAPE is a landscape architecture firm with extensive experience preparing adaptation plans to address sea level rise.

SCAPE began work in early 2019 with the preparation of a *Background Report* that identified ecological resources, cultural resources, critical infrastructure, land use patterns, and demographics within the project area. Concurrently, SCAPE produced the *Data Collection and Sea Level Rise Mapping Report*, which gathered data on sea level rise and updated the inundation maps for the Hayward Regional Shoreline Area. Maps exhibited inundation from 2 feet, 4 feet, and 7 feet of sea level rise as well as groundwater emergence and the 100-year storm surge. These metrics are representative of expected sea level rise in 30, 60, and 80 years, according to medium-high risk aversion projections from the California Coastal Commission. Both reports are available on the project webpage⁴.

In late 2019, staff from the three HASPA agencies worked with SCAPE to prepare a *Goals and Policies Memo*. The Project Goals outlined in that report were:

- Create a Resilient Shoreline Environment for People and Ecology
- Enhance the Shoreline Environment to Reduce Risk to Critical Infrastructure and Built Assets
- Build Social Resilience in the Community
- Build Capacity for Future Generations to Adapt to Climate Change

Concurrently, HASPA staff and SCAPE produced the *Adaptation Strategies Report* that outlines potential adaptation strategies including nature-based, engineered, and non-structural strategies.

Building upon the *Adaptation Strategies Report* and stakeholder feedback, staff from the three HASPA agencies and SCAPE developed three *Preliminary Design Alternatives* for the

¹ <https://www.hayward-ca.gov/shoreline-master-plan>

² <https://hayward.legistar.com/LegislationDetail.aspx?ID=3582257&GUID=A2889995-AD55-4F83-81BD-A08B5B8C3CE5&Options=&Search=>

³ <https://hayward.legistar.com/LegislationDetail.aspx?ID=3784499&GUID=3BAB6DE9-C3AF-407D-A69A-0DD563977C96&Options=&Search=>

⁴ <https://www.hayward-ca.gov/shoreline-master-plan>

Hayward Shoreline. The Alternatives include three different approaches intended to reduce risk by considering perimeter protection for critical assets and an adaptative approach for shoreline ecosystems.

On May 5, 2020⁵, Council held a work session on the Plan and provided feedback to staff on the three *Preliminary Design Alternatives*. Council was supportive of elements from all three alternatives and encouraged a Preferred Alternative that was a hybrid of all three alternatives. The Preferred Alternative reflects the following comments received from the Council:

- The Preferred Alternative should have elements from all three Preliminary Design Alternatives including protections for built assets (landfills, industrial neighborhood, and wastewater infrastructure), nature-based solutions (treatment wetland, horizontal levee), and recreational opportunities (Bay Trail, Hayward Shoreline Interpretive Center).
- The Plan should prioritize protecting existing wildlife and habitats, and minimize water pollution.
- Mosquito abatement should be considered when crafting the Preferred Alternative.
- Cost estimates should be included in the Preferred Alternative.

At the July 9, 2020, HASPA Board of Trustees meeting⁶, SCAPE shared comments received on the Preliminary Design Alternatives and presented the draft Preferred Alternative. The Board of Trustees expressed support for the Preferred Alternative and appreciated how it balanced stakeholders' needs.

A draft of the Plan was presented on October 8, 2020 to the Board of Trustees⁷. The draft Plan compiles all the previous reports into one succinct document. Additionally, it outlines a phasing plan, policy recommendations, funding mechanisms, and other considerations for implementation of the Plan. The Board of Trustees provided the following comments:

- The Plan creates a comprehensive, clear, and detailed vision for the Hayward Regional Shoreline that will serve as a strong basis for implementation and pursuing grant funding.
- Pursuing and identifying funding opportunities will be integral to implementing the Plan.
- Implementation should continue coordination and collaboration with regional agencies and organizations. When the JPA is renewed in late 2021, HASPA should consider adding other agencies like the Alameda County Flood Control District, Oro Loma Sanitary District, and others to assist in implementation of the Plan.

⁵ <https://hayward.legistar.com/LegislationDetail.aspx?ID=4432812&GUID=3DD619A8-210F-4C7E-9636-1BDB7908C3E9&Options=&Search=>

⁶ <https://hayward.legistar.com/MeetingDetail.aspx?ID=794926&GUID=08E06003-082A-4A8B-9204-A9C78C8E7AC2&Options=&Search=>

⁷ <https://hayward.legistar.com/MeetingDetail.aspx?ID=806168&GUID=A8EBEDE5-54AE-454E-AF9D-28902F0F3588&Options=info&Search=>

On October 22, 2020, the Planning Commission held a work session to provide feedback on the draft Plan⁸. The Planning Commission expressed support for the Plan overall and made the following comments:

- Conduct additional public outreach to the area's most disadvantaged community members.
- Outreach should also include the San Lorenzo community.
- The natural features to absorb flooding are appreciated.
- It is important to protect the industrial area and limit new development that may be impacted by sea level rise.

Following the Planning Commission work session, project staff worked to incorporate all comments received into the final draft and conducted additional outreach as requested by the Commission. On January 14, 2021⁹, the HASPA Board of Trustees reviewed the finalized Plan and voted unanimously to recommend that each agency adopt the Plan.

DISCUSSION

Building upon Council, the HASPA Board of Trustees, stakeholder and community member feedback, staff from the three HASPA agencies and SCAPE developed the Plan, which is available on the project webpage (<https://www.hayward-ca.gov/shoreline-master-plan>). The Plan includes information from previous reports, the Preferred Design Alternative, a phasing plan, and structural and non-structural adaptation strategies.

Preferred Plan Alternative. The Preferred Plan Alternative is a hybrid of the Preliminary Design Alternatives that balance risk reduction and ecological enhancement along the Shoreline (see Figure 1 below). The Preferred Plan Alternative features a FEMA certified flood protection levee that would provide protection from approximately four feet of sea level rise. The levee starts along San Lorenzo Creek and wraps in front of Oro Loma Sanitary District's Wastewater Treatment plant. It pulls back along the Union Pacific Rail Corridor then moves south, tying back to higher elevation at the landfills. The levee runs along the landfill's edges then aligns with the western extent of the City's wet weather storage ponds. The alignment pulls back in the southern portion of the site to wrap behind the Salt Marsh Harvest Mouse Preserve, then ties back along a new levee parallel to the access road for SR-92. This levee will provide protection to the industrial and residential neighborhoods near the project area.

The Preferred Plan Alternative also maintains recreation elements along the Shoreline by adapting the Bay Trail over time and renovating the Hayward Shoreline Interpretive Center. The Bay Trail's current alignment would be maintained until no longer possible at which point it would run atop the FEMA certified flood protection levee. The levees surrounding the Hayward Shoreline Interpretive Center would be raised in the short-term and the center itself would be elevated in place in the long-term, ensuring future

⁸ <https://hayward.legistar.com/LegislationDetail.aspx?ID=4670013&GUID=6249F0C6-51A5-41FD-87FB-5E35C41D649D&Options=&Search=>

⁹ <https://hayward.legistar.com/MeetingDetail.aspx?ID=821677&GUID=8A0EF984-3ADD-434C-A48C-3CEEF7DDC77&Options=&Search=>

generations can enjoy this educational resource. The Phasing Plan divides the adaptation projects into three phases: short term (for the first ten years); medium term (2030 through 2045); and long term (2045 and beyond).

Figure 1. Preferred Alternative



Proposed Policies and Programs. In addition to the built design, the Plan identifies non-structural strategies including Policies and Programs to increase resiliency along the shoreline. The recommended Policies and Programs are as follows:

- Advance regional dialogue into mechanisms for balancing the protection of at-risk communities and infrastructure and restoring ecosystems.
- Increase flood protection standards for new construction and renovations.
- Remove regulatory impediments to higher standards of flood protections.
- Provide support for property owners to protect assets through loans, grants, and tax incentives.
- Develop technical support and education to help industrial businesses understand risks from sea level rise and develop mitigation actions.
- Plan for long-term growth management and potential strategic relocation of the Industrial District.

Once finalized and adopted, the Plan will provide a roadmap of policies, programs, and projects that may be implemented over the next thirty years creating a long-term vision for the shoreline.

ECONOMIC IMPACT

The Plan aims to protect the City's Industrial Technology and Innovation Corridor, ensuring this critical part of Hayward's economy is resilient to climate change. Furthermore, the shoreline and the San Francisco Bay Trail provide an estimated \$490,000 in annual revenue to the local and regional economy. The Hayward Shoreline Interpretive Center generates more than \$60,000 in annual revenue for HARD. The Plan identifies strategies to protect these assets and the related economic activity.

FISCAL IMPACT

Preparation of the Plan is funded by a Caltrans Adaptation Planning Grant of \$509,000. The grant required a local match of \$175,000, which was provided through in-kind-services by the three agencies. The HASPA agencies contributed an additional \$37,000 to expand the Shoreline Master Plan's scope of work to include cost estimation.

Implementation of the Plan over the next thirty to forty years could cost approximately \$1 billion and will be subject to regional coordination and the receipt of grant funds. On December 30, 2020, the TAC submitted a Notice of Interest (NOI) for FEMA's hazard mitigation grant funding for the Oro Loma Interim Levee, which is identified in the Shoreline Adaptation Master Plan. A response to the NOI is expected by the end of January. On January 25, 2021, the California Office of Emergency Services (CalOES) responded to the NOI and invited HASPA to submit a formal grant application before May 1, 2021. The HASPA TAC is currently coordinating with Oro Loma Sanitary District and Alameda County Flood Control District on a formal grant application.

STRATEGIC ROADMAP

This agenda item supports the Strategic Priority of Combat Climate Change. Specifically, this item relates to the implementation of the following project:

Project 9: Complete Shoreline Master Plan

Regarding Project 9a, Complete EIR for Shoreline Master Plan, staff recommended and the HASPA Board of Trustees agreed that the preparation of an Environmental Impact Report is not necessary or desirable at this time.

Before development of the Plan began, the HASPA Board expressed a desire to have a plan and a CEQA (California Environmental Quality Act) document in place to better position HASPA to implement projects and seek grant funding. When the scope of work and timeline for the current project were developed, staff included the preparation of an Environmental Impact Report (EIR) that would extend beyond the completion of the grant-funded work in February 2021. The HASPA Technical Advisory Committee (TAC) met internally several times to discuss the most appropriate approach for conducting environmental review of the Plan since the grant does not allocate funds or require a process for environmental review. The Board of Trustees discussed this issue during their meeting on October 8, 2020 and requested staff further evaluate the possibility of preparing an EIR by exploring whether other stakeholders could share the cost for this work and possibly preparing an EIR only for the short-term projects.

Given the level of detail currently in the Plan and the ecological considerations that would need to be addressed, an EIR would be expensive. The cost of an EIR for the Master Plan was originally estimated to be \$240,000 and more recently, TAC staff estimate the cost could be closer to \$500,000. Staff reached out to the Alameda County Flood Control District several times and was unable to get a response on this issue. Staff also reached out to the East Bay Dischargers Authority and the Oro Loma Sanitary District about cost sharing. The agencies indicated they would conduct environmental review for their projects outlined in the Plan after additional studies and design. While an EIR addressing only the short-term projects would be more affordable, the agencies that would need to be involved are not ready to participate in the environmental review process at this time. Finally, staff also found that most federal grant programs do not require that an environmental review document be completed prior to the submittal of a grant application. In many cases, environmental review can be completed after the receipt of grant funds.

SUSTAINABILITY FEATURES

The Hayward Regional Shoreline Adaptation Master Plan provides a framework for resiliency to sea level rise intended to help future generations manage the inevitable effects of climate change. The Plan considers long term adaptation approaches to protect critical infrastructure and facilitate adaptation of natural systems. In addition, the Plan supports the following General Plan and Climate Action Plan Goals.

- NR-1.4 The City shall coordinate with the Hayward Area Shoreline Planning Agency, Bay Conservation and Development Commission, and California Coastal Commission to conserve, protect, and enhance natural and cultural resources along the San Francisco Bay shoreline by balancing uses that support multiple community needs, such as recreation, tourism, cultural resource preservation, and natural resource protection.
- NR-3.2 The City shall coordinate with Hayward Area Shoreline Planning Agency, East Bay Regional Park District, Bay Conservation and Development Commission, California Coastal Commission, and other Federal, State, and regional agencies to identify methods for acquiring and restoring bay lands and marsh habitats, expanding the National Wildlife Refuge, and funding the purchase and restoration of wetland habitats.
- HAZ-3.4 The City shall coordinate with the Alameda County Flood Control and Water Conservation District to evaluate the need to expand the capacity of flood control facilities based on changing flood conditions associated with global warming and extreme weather.
- HAZ-4.1 The City shall monitor information from regional, State, and Federal agencies on rising sea levels in the San Francisco Bay to determine if additional adaptation strategies should be implemented to address flooding hazards.
- HAZ-4.3 The City shall coordinate with the Hayward Area Shoreline Planning Agency, the Bay Conservation Development Commission, and other agencies involved in the Adapting to Rising Tides Project to develop and implement a Regional Shore Realignment Master Plan.
- HQL-9.7 The City shall examine the potential long-term impacts of climate change on the social, economic, and environmental well-being of the city of Hayward.
- HQL-9.9 The City shall support plans, standards, regulation, incentives, and investments to reduce the impacts of climate change on those populations most vulnerable to the impacts of climate change.
- HQL-11.1 City shall establish and maintain an integrated recreational corridor system that connects regional trails (e.g., Bay Trail), Bay lands (i.e., Hayward Regional Shoreline), local creeks and open space corridors, hillside areas, and EBRPD and HARD parks.
- PFS-1.7 The City shall monitor impacts of climate change of the city’s infrastructure and services and make appropriate adaptive facility and service modifications and upgrades.
- PFS-6.1 The City shall work with Alameda County Flood Control and Water Conservation District, State, and Federal agencies to ensure existing and new levees are adequate in providing flood protection.

ENVIRONMENTAL REVIEW

Adoption of the Plan is statutorily exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15262, Feasibility and Planning Studies. Rincon, a CEQA consultant, prepared a memorandum (Attachment III) to assess the Plan’s eligibility for this statutory exemption and provide a general overview of the environmental factors associated with the Plan area and the Plan’s ultimate implementation. The memorandum

concluded that this statutory exemption is appropriate for adoption of the Plan. As HASPA begins implementing projects, CEQA compliance will be ensured as each project is developed, designed, and scheduled.

PUBLIC CONTACT

In March of 2019, a survey was conducted to assess the public's general understanding of the Hayward shoreline, sea level rise, potential flooding, and participants' feelings, concerns, and predictions regarding these issues. The survey was completed by approximately 900 people and the results are summarized in Appendix A of the draft Plan. On October 27, 2019, the public was invited to attend a Shore Tour that highlighted different sea level rise adaptation strategies. SCAPE and HASPA hosted two stakeholder workshops on May 16, 2019 and October 28, 2019 to gather critical input on the Plan. Additionally, a series of stakeholder meetings were held on the week of January 6, 2020 with Alameda County Flood Control District, Caltrans, East Bay Discharge Authority, Oro Loma Wastewater Treatment Plant, Hayward Public Works, Russell City Energy Center, and the San Francisco Bay Conservation and Development Commission to discuss different adaptation strategies.

A series of stakeholder meetings were held virtually during the week of April 6, 2020 to receive input on the three *Preliminary Design Alternatives*. This included stakeholders from previous meetings and new stakeholders including California Fish and Wildlife, South Bay Salt Ponds, and the Bay Trail. Stakeholders indicated support for specific elements within the *Preliminary Design Alternatives* that reflected their agency's mission and goals. They encouraged a hybrid Preferred Alternative that include elements from all three alternatives.

In light of the COVID-19 pandemic, the project team launched a public forum website to gather public feedback on the *Preliminary Design Alternatives* in early June¹⁰. The website was promoted on social media and through emails to industrial businesses and community members. The website garnered more than 900 unique users and 55 comments from community members. Many community members expressed a strong connection to the shoreline, encouraging the preservation of recreational resources and educational programming. They were very supportive of the ecological elements within the Design Alternatives including ecosystem restoration, ecological preservation, and habitat protection. Additionally, they advocated for mitigating future impacts of climate change now by adapting infrastructure and preserving the built environment but understood there may be a future need to move assets inland. All comments were considered when drafting the Plan.

In July 2020, two additional virtual stakeholder meetings were held to discuss the *Preferred Alternative* with East Bay Discharge Authority, Oro Loma Wastewater Treatment Plant and Hayward Public Works. Their input was integrated and reflected in the draft Plan.

¹⁰ <https://haywardshorelinemasterplan.com/>

In November 2020¹¹, the project team updated the public forum website to gather additional public feedback on the draft Plan through December 1, 2020. The website was promoted through social media posts, emails and newsletter articles. The outreach garnered an additional 5 comments from local non-profits and residents. To address Planning Commission's comments, the draft Plan was also shared with Alameda County staff for circulation and staff presented the Plan at the San Lorenzo Village Homeowners Association Board Meeting on November 19, 2020.

In December 2020, the project team reviewed the draft Plan with Alameda County Flood Control District. They expressed general support for the Plan and interest on working together to implement the Plan.

The survey results, stakeholder comments, and community members comments are included in Appendix A of the Plan, available on the project website¹².

NEXT STEPS

If adopted, staff will work with EBRPD and HARD to begin implementing the short-term projects identified in the Plan.

Prepared by: Taylor Richard, Climate Corps Fellow
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Recommended by: Laura Simpson, Director of Development Services
Alex Ameri, Director of Public Works

Approved by:



Kelly McAdoo, City Manager

¹¹ <https://haywardshorelinemasterplan.com/>

¹² <https://www.hayward-ca.gov/shoreline-master-plan>