

SAN FRANCISCO WATERFRONT COASTAL FLOOD STUDY, CALIFORNIA

APPENDIX H PUBLIC INVOLVEMENT

JULY 2026

USACE TULSA DISTRICT | THE PORT OF SAN FRANCISCO



**US Army Corps
of Engineers** 



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Attachments

Attachment 1: Public Engagement from 2020 (early scoping) through 2023 (scoping)

Acronyms and Abbreviations

Acronym	Definition
BCDC	Bay Conservation and Development Commission
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
CSRM	Coastal Storm Risk Management
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
IFR	Integrated Feasibility Report
IFR/EIS	Integrated Feasibility Report / Environmental Impact Statement
NEPA	National Environmental Policy Act
NGO	Non-Governmental Organization
NMFS	National Marine Fisheries Service
NPS	National Park Service
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NMFS	National Marine Fisheries Service
ORCP	Office of Resilience and Capital Planning
PDT	Project Delivery Team
POSF	Port of San Francisco
RAWG	Regulatory Agency Working Group
RWQCB	Regional Water Quality Control Board
SFWCFS	San Francisco Waterfront Coastal Flood Study

SHPO	State Historic Preservation Office
SLC	State Lands Commission
TSP	Tentatively Selected Plan
USACE	U.S. Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WRP	Waterfront Resilience Program

1.0 Introduction

This appendix outlines the public involvement process, describes the public comment process, and provides responses to public comments received during the public comment period of the draft Integrated Feasibility Report and Environmental Impact Statement (IFR/EIS) for the San Francisco Waterfront Coastal Flood Study (SFWCFS).

This appendix is organized to synthesize agency coordination and stakeholder collaboration, public engagement, public comment process and analysis, master responses to comment themes, and summarized substantive comments and responses.

- Agency coordination and stakeholder collaboration – describes the process by which the team engaged with federal, state, and local agencies as well as important stakeholders during study development and analysis.
- Public engagement – describes the public engagement process for the study led by USACE, as well as the Port of San Francisco (non-Federal sponsor).
- Comment process and analysis – describes the process for managing, and sorting all public comments, and identifying substantive comments. Provides information on the numbers and types of comments received, organized by topic/code and submitter.
- Master response to themes – presents general comment themes for each code and provides a master response for each general comment theme. Similar substantive comments are addressed collectively by summarizing them as a ‘general comment theme’.
- Substantive comments and responses – displays in a table all the substantive comments and USACE responses. Each individual substantive comment has received a response consisting of a reference to any applicable master response and/or individual response.

2.0 Agency Coordination and Collaboration

The Project Delivery Team (PDT) has been coordinating with federal, state, and local governmental agencies throughout the plan formulation process to identify potential concerns, ways to avoid, minimize, and mitigate for adverse impacts, and where engineering with nature or other beneficial features could be incorporated into the planning and designs. Coordination with these agencies has included attendance at meetings hosted by the US Army Corps of Engineers (USACE) and other agencies including two environmental agency teams that were formed. The Resource Agency Working Group (RAWG) is hosted by the Port of San Francisco (POSF), with additional support from the USACE, that includes more than 50 members from agencies including: San Francisco Bay Conservation and Development Commission (BCDC), California Department of Fish and Wildlife (CDFW), City of San Francisco Planning Department, Environmental Protection Agency (EPA), National Park Service (NPS), National Marine Fisheries Service (NMFS), Regional Water Quality Control Board (RWQCB), California

State Lands Commission, and US Fish and Wildlife (USFWS). Additionally, an Engineering with Nature Working Group (ENWG) was set up by the USACE to identify where and which Natural and Nature Based Features (NNBFs) should be considered within the study area and help describe how NNBFs contribute to regional habitat goals and project benefits. The ENWG included 15 individuals from Federal, state, and local agencies, universities, non-governmental organizations, and private industry who have been identified as experts in the field of Engineering with Nature and ecological restoration. The PDT will continue to engage with agencies throughout the planning process, to further refine the designs and impact analysis and in support of environmental compliance activities described in Chapter 7 of the Main Report.

National Environmental Policy Act (NEPA) regulations and processes define three types of formal roles for agencies. A Lead Agency is the federal agency preparing or having taken primary responsibility for preparing a NEPA document. A Cooperating Agency is any federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major federal action significantly affecting the quality of the human environment. A Participating Agency is a federal or state agency that has an interest in the proposal. Cooperating and Participating Agencies must provide comments within their special expertise or jurisdiction and use the NEPA process to address any environmental issues of concern to its agency. A total of 12 invitations (5 federal agencies, 7 state agencies) were sent. Two formal acceptance letters were received from cooperating agencies and two declines were received from state agencies (California State Historic Preservation Office and Bay Area Quality Management District). Any agency who did not formally respond are assumed to have accepted the invitation to be a cooperating or participating agency. The following is a list of formal agency roles for this Study:

- **Lead Agency:** USACE
- **Cooperating Agencies:** Environmental Protection Agency Region 9 (Formally Accepted), Federal Emergency Management Agency Region IX (Planning and Implementation Branch), National Marine Fisheries Service (Formally Accepted), National Park Service, US Fish and Wildlife Service
- **Participating Agency:** California Department of Fish and Wildlife, California Regional Water Quality Control Board, California State Lands Commission, San Francisco Bay Conservation and Development Commission, and San Francisco Planning Department

2.1 Regulatory Agency Working Group

USACE, along with other Federal, State, and local agencies participates in a Regulatory Agency Working Group (hosted by POSF). The RAWG serves as a forum, to strive for common objectives and goals, to develop ways to address risks that are adaptive, accountable, and transparent, and to provide for early identification of permitting and policy issues. The RAWG includes POSF, USACE, BCDC, CDFW, EPA, NPS, NMFS,

RWQCB, State Historic Preservation Office (SHPO), State Lands Office (SLO), and USFWS.

2.2 City Agency Engagement

POSF also engaged San Francisco City partners on the Flood Study. POSF convened a group of City staff that met regularly to provide input into plan formulation, engineering, and public involvement. The City staff team included representatives from the Office of Resilience and Capital Planning (ORCP), SFMTA, SF Planning Department (Planning), SFPUC, and SF Public Works. POSF worked with City agency directors through San Francisco's ClimateSF group, which includes directors from the same agencies plus SF Environment. The ClimateSF Directors group acted as a steering committee for City confirmation of SFWCFS decisions. The focus of these presentations and ensuing discussions included: understanding more about priority assets along the waterfront, along with ideas for improving seismic and flood safety, working closely with agency staff to better understand potential impacts to infrastructure and assets, and ongoing close coordination on mid- and long-term planning to help inform plan formulation strategies.

3.0 Public Coordination

Public involvement is required by NEPA before a Federal agency undertakes an action affecting the environment. The purpose of public involvement is to enable citizen input regarding potential alternatives and effects of agency actions, and to bolster informed agency decision-making. Throughout this study, USACE and POSF have actively involved agencies, key audiences, and the public through various meetings and engagements.

3.1 NEPA and the Scoping Process

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with the proposed action. The purpose of the scoping process is to:

- Invite the participation of local, county, state, and federal resource agencies, Indian Tribes, non-government organizations (NGOs), and the public to identify significant environmental and socioeconomic issues related to the study
- Determine the depth of analysis and significance of issues to be addressed in the Integrated Feasibility Report/EIS
- Identify how the proposed alternatives would or would not contribute to cumulative effects in the study area
- Identification of any local, county, state, and federal resource plans and future project proposals in the study area, implementation schedules, as well as any data that would help to describe past and present actions, and effects of the

project and other development activities, on environmental and socioeconomic resources

- Gather information, quantitative data, or professional opinions that may help define the scope of the analysis related to both site-specific and cumulative effects, and that may help identify significant environmental issues
- Solicit, from local, county, state and federal agencies, as well as the public, available information on the resources within the study area
- Identify any information sources that might be available to characterize the existing environmental conditions and analyze and evaluate impacts.

3.2 Scoping Period

The Study began in 2018 under the USACE San Francisco District, South Pacific Division and was transferred to the Tulsa District out of the Southwestern Division in 2021. The USACE San Francisco District and Port issued a Notice of Early Scoping in the Federal Register August 20, 2020. At that time, it was unclear if significant effects would be realized and the need for an EIS was not formally announced.

Virtual public scoping meetings were held on September 16 and 17, 2020 coinciding with the Notice of Early Scoping. During early scoping, several significant environmental and social issues were raised including but not limited to minimizing bay fill; effects of high rates of sea level rise on any alternative considered; disruptions to businesses, transportation corridors and walk paths; environmental justice impacts on historically disadvantaged communities; impacts to water quality, contaminated sites, historic resources; and the potential cost and time to implement any of the strategies. In general, there was wide support for use of nature-based measures in lieu of gray infrastructure, preserving and increasing public access to the waterfront, and incorporating adaptation components to address uncertainties in sea level rise.

A second Notice of Intent (NOI) was published on July 27, 2023, with a scoping comment period from July 27 through August 28, 2023. No additional public meetings were held during this comment period due to the level of community engagement held between the first Early Scoping public meetings and the Waterfront Resiliency Program Community Engagements completed in the Fall of 2022 to help socialize the study and potential measures, as described in Section 2.2.

During the 2023 scoping process, several scoping comment letters were received from State and Federal agencies. Many of the scoping comments were similar to the environmental and social issues that were documented during the 2020 early scoping period and during agency coordination. Scoping comments noted interest in the impacts to marine biological resources, hydrology and water quality, State and Federally listed species, aesthetics and historic resources.

All comments received during the early scoping and scoping comment periods are included in Attachment 1, along with copies of the FR notices and summaries of engagement where applicable.

3.3 Waterfront Resilience Program Community Engagement

Since 2017, the Port's Waterfront Resilience Program (WRP) has connected with tens of thousands of people through robust community engagement efforts to advance work on the Embarcadero Seawall Program and the San Francisco Waterfront Coastal Flood Study (SFWCFS). This included engaging community members, businesses and merchants, advisory committees, non-profit groups and others, and educating them about the aging Embarcadero Seawall to ensure that the findings from the Multi-Hazard Risk Assessment (MHRA) about the hazards, risks and consequences would be accompanied by an understanding of the priorities, concerns and issues that mattered to community members and other key audiences.

More specifically, the Port's communication and engagement included sharing earthquake and current and future flood risks along the Embarcadero waterfront in the northern waterfront and the current and future flood risk due to sea level rise as part of the SFWCFS and the Islais Creek Adaptation Study in the central and southern waterfronts. Across all public engagement efforts, the Port presented the same messages:

- Education about the Embarcadero Seawall, known risks, and the Port's approach to address those risks
- Education and introduction to the SFWCFS, current and future risks and the assets and services that will be affected if no action is taken
- Introduction to the WRP, including life safety and emergency response as the primary Program focus

All community engagement (including community meetings, presentations to groups, tabling at local neighborhood events, and online engagement) also offered the public an opportunity to provide the Port key feedback on Program priorities as the Port and its consultants worked with city partners and others to advance the MHRA to better understand the seismic and flood hazards, the assets and services within the Program area, and the nature and consequences of the risks.

The community engagement approach included:

- Community meeting series in three geographies: Embarcadero, Mission Creek / Mission Bay and Islais Creek / Bayview;
- Participation in and hosting of community events like mixers, walking tours, and boat tours throughout the waterfront;
- Online engagement through the WRP website (sfport.com/wrp); and
- Presentations to and discussions with community-based organizations, community advisory committees, commissions, and boards.

Additional details on the community engagement efforts and the comments received are included in Attachment 1.

3.3.1 Community Meetings

A series of community meetings were held between June 2018 and December 2022. Each community meeting focused on a topic including an introduction to the Waterfront Resilience Program; assets and risks; goals and tradeoffs; framework and vision, principles, and evaluation criteria; the Multi-Hazard Risk Assessment (MHRA) approach and findings; introduction to measures; and introduction to Embarcadero Early Projects; and Draft Waterfront Adaptation Strategies. Eight meetings were held in the Embarcadero community, four meetings in the Mission Creek / Mission Bay community, and six meetings in the Islais Creek / Bayview community.

3.3.2 Digital Engagement

To provide a range of ways to participate in the WRP, the program website (sfport.com/wrp) has provided a number of opportunities for online engagement, as well information related to meetings, findings, explainer videos, walking tours and other engagement opportunities. Some of the online engagement has included:

- Map Your Priorities Along the Waterfront: this mapping exercise asks the public to inform how we prioritize and define projects along our waterfront. It is modified from a table-top activity at Seawall Community Meeting #2 in September 2018 and two SFWCFS Meetings in March 2019.
- It's Your Turn: Provide Feedback on the Mission Bay/Mission Creek Resilience Goals: this online engagement provides the public a way to engage and give input on the draft Mission Bay/Mission Creek Resilience Goals that were drafted based on input from Mission Bay/Mission Creek Community Meeting #1.
- It's Your Turn: Provide Feedback on the Waterfront Resilience Program Vision, Principles, and Evaluation Criteria: provides a way for people visiting the WRP website to give input on the draft Program Vision, Principles and Evaluation Criteria in the Embarcadero Seawall segment to augment the feedback received in Community Meetings #3 and #4.
- Think Big and Help the Port Envision the Waterfront in 2100 and Beyond: this online activity paralleled our in-person outreach on the Envision effort and asked the public to imagine the waterfront in the year 2100.
- Draft Waterfront Adaptation Strategies StoryMaps: this virtual tour of the waterfront shows how the Draft Waterfront Adaptation Strategies would be applied in each waterfront area.
- Draft Waterfront Adaptation Strategies Explainer Video: created in conjunction with sfgovtv, this video provides an overview of waterfront risks and hazards and potential strategies to address these hazards (the Draft Waterfront Adaptation Strategies).

3.3.3 In-Language Engagement

To make information about the Draft Waterfront Adaptation Strategies available in languages community members are most comfortable using, in-language Spanish and Chinese communications were developed as part of engagement. These in-language materials included:

- Adaptation Strategies Explainer Video (Spanish | Chinese)
- Downloadable PDF fact sheets for each of the seven Draft Waterfront Adaptation Strategies
- Webpages listing the full calendar of engagement events, with a sign-up form to register for events with a request for a translator (Spanish | Chinese)
- Waterfront posters with designated QR codes leading to the engagement page to sign up for events and review materials
- In-language social media posts

3.3.4 In-Person, Event Based Engagement

Since 2017, the Port has connected with Bay Area families at over 100 in-person events. Almost all events have been staffed by a multilingual outreach team.

- **I Love the Waterfront:** The WRP led an outreach activity based at over 100 events throughout the city to connect people to the waterfront by asking them what they love about the waterfront. These events led to more than 13,500 people contacted, 9,000 pieces of collateral distributed, and 3,500 engagement activity participants. After each event, the outreach team reported a few of the select responses to the “I love the waterfront” prompt from each event.
- **Envision Engagement:** In 2019, the Waterfront Resilience Program team led an outreach activity based on the Envision activity from Embarcadero Seawall Community Meetings #1 and #3 at twenty-two events throughout the city. These events led to almost 4,000 people contacted, 2,500 pieces of collateral distributed, and 2,000 engagement activity participants. After each event, the outreach team took a photo of the map filled with the cards and pulled out themes from the event.
- **WRP Mixers and Pop-Ups:** The Port hosted a series of free “mixers” and pop-up events in the Bayview that saw hundreds of attendees, including families, who engaged in outreach activities and shared input on the Program.
- **WRP Community Partnerships:** The Port connected with key community-based organizations to help us connect with communities across San Francisco about the WRP. Highlights include partnerships with 826 Valencia / Mission Bay, Cal Academy, WorldWideWomen Girls’ Festival, and more.

- **Waterfront Tours:** Another way in which WRP brought the program into the community and used different approaches to engage and communicate was through walking tours. The team held a series of walking tours along the Embarcadero Seawall, began a series in the Islais Creek geography and also held a boat tour to see the waterfront from the important perspective from the Bay. The walking tours allowed the WRP to share the seismic and flood risks and highlight critical assets and services along the shoreline. Some of the highlights of the Embarcadero tours included sharing some of the lowest spots along the waterfront, sharing the new Ferry Terminal expansion that was built to accommodate both seismic and flood risk and the Pier 14 sea level rise markers that demonstrate how much elevation change will need to occur to address future flood risk. The Islais Creek tour highlights included all of the small businesses, critical city and Port assets, critical mobility assets and all of the ecological benefits that persist in Islais Creek in spite of how industrial it is.
- **Draft Waterfront Adaptation Strategies community meetings:** This virtual and in-person meeting series hosted interactive workshops in each of the three outreach locations (Embarcadero, Mission Creek / Mission Bay, and Islais Creek / Bayview) to gather public feedback on the Draft Waterfront Adaptation Strategies. This feedback was used to help the PDT identify the TSP.

3.3.5 Community Group Engagement

- Since 2017, the Port team coordinated over 115 community and key stakeholder presentations including 12 in-language meetings. This includes presentations and discussions with community-based organizations, neighborhood groups, and formal advisory committees, commissions, and boards. The standard format for this engagement included a 15-minute presentation describing the Waterfront Resilience Program, the hazards and potential risks and consequences relevant to the group, the adaptation planning framework, the projects within the program and community engagement approach and opportunities for input, and the Draft Waterfront Adaptation Strategies.

4.0 Draft Report Coordination

4.1 Public Coordination

The Draft IFR/EIS was publicly released on January 26, 2024, starting a 60-day public comment period running from January 26 through March 29, 2024. During this period, the Port and USACE performed robust public outreach and engagement activities to gather public feedback on the Draft plan.

Engagement and outreach included four in-person community workshops (NEPA meetings), two in-language community workshops, four walking tours, two public webinars, presentations to community-based organizations (CBOs) across the city, and

dozens of briefings to community advisory committees (CACs), Port tenants, and City agency leadership.

High-level summary of engagement:

- 14 total Public Events, including four formal NEPA meetings
- 21 total CBO Presentations
- 39 total Leadership Briefings, CACs, and Tenant Presentations
- Engagement with a number of San Francisco Unified School District students
- 972 total Participants in all Engagement Events
- 4,870 views of StoryMaps (as of 3/29/24)
- 11,257 views of Draft Plan Webpages on sfport.com/wrp
- 941,425 Social Media Ad Impressions

4.1.1 Public Comment

The U.S. Army Corps of Engineers received 154 public comments on the Draft Integrated Feasibility Report and Environmental Impact Statement. Comments were submitted directly to the USACE via email or mail, through the online portal hosted on the Port's website, orally at NEPA community workshops, or formally submitted comment cards at a NEPA community workshop.

4.1.2 Press Conference - Draft Plan Release

The Port hosted a Press Conference on January 26, 2024, to mark the release of the Draft Plan. In attendance were Speaker Emerita Nancy Pelosi, Lieutenant Governor Eleni Kounalakis, Mayor London Breed, Port Executive Director Elaine Forbes, Board of Supervisors President Aaron Peskin, State Senator Scott Wiener, City Administrator Carmen Chu, and U.S. Army Corps of Engineers, Tulsa District Commander Col. Tim Hudson. Several news outlets covered the Press Conference including the San Francisco Chronicle.

4.1.3 Engagement Channels and Metrics

This section provides detailed information about engagement by activity type (**Table H-1**). When taking into account website page views, Eventbrite page views, social media impressions, and event registration and attendance, there were over 950,000 views of content related to the Flood Study and Draft Plan.

Table H-1: Engagement Attendance by Event Type

Event Type	Attendees
In-Person Community Workshops (NEPA Meetings)*	271
In-language Workshops*	127
Waterfront Walking Tours*	136
Public Webinars*	31
CBO Presentations	320
Briefings/CACs/Tenant Meetings	87
Total	972

**Publicly promoted events*

4.1.3.1 In-Person Community Workshops (NEPA meetings)

The Port and USACE hosted four community workshops, one in each geographic “Reach” of the Draft Plan, including Fisherman’s Wharf, Embarcadero, South Beach/Mission Bay, and Islais Creek/Bayview (**Table H-2**). The workshops consisted of an informative presentation about the Flood Study and Draft Plan followed by a period for public comment via a microphone and an open science fair-style period where attendees could visit boards with information about the Draft Plan and leave feedback via public comment cards. USACE also provided a court reporter to take formal verbal comments on the Draft Plan.

The Port also hosted two in-language Community Workshops, one in Spanish and one in Cantonese that followed the same format.

Table H-2: Attendance at Community Workshops

Event	Attendees
Fisherman's Wharf Community Workshop (Reach 1)	40
Embarcadero Community Workshop (Reach 2)	90
South Beach / Mission Bay Community Workshop (Reach 3)	91
Islais Creek / Bayview Community Workshop (Reach 4)	50
Hispanic/Latinx Workshop (Spanish)	63
Chinese-American Workshop (Cantonese)	64
Total	398

4.1.3.2 Waterfront Walking Tours & Royal Tides Events

The Port hosted four walking tours, one in each geographic reach in the Draft Plan (**Table H-3**). Port Staff led guided tours that took participants on routes along the waterfront. Talking points focused on local elements of the Draft Plan. Project leads from other City agencies such as SFPUC, SF Planning, SFMTA, and SF Public Works supported.

Port staff also joined the Exploratorium for two Royal Tides walking tour events that the Exploratorium organized for January 11 and February 9. Both events were opportunities to promote the Draft Plan release and community events.

Table H-3: Attendance at Walking Tours

Event	Attendees
Fisherman's Wharf Walking Tour (Reach 1)	10
Embarcadero Walking Tour (Reach 2)	14
South Beach / Mission Bay Walking Tour (Reach 3)	41
Islais Creek / Bayview Walking Tour (Reach 4)	26
Jan 11 Royal Tides Walking Tour with Exploratorium	15
Feb 9 Royal Tides Walking Tour with Exploratorium	30
Total	136

4.1.3.3 Public Webinars

The Port hosted two webinars on the Draft Plan, open to any member of the public. The presentation followed the same format as the community workshops. Participants could make comments in the chat and the presenters responded to all comments. A total of 13 individuals attended the March 7 webinar, while 18 attended the March 13 webinar, with an overall total of 31 individuals reached.

4.1.3.4 StoryMaps

This interactive digital storytelling platform communicated risks, reviewed community input to date, and presented the Draft Plan by geography as well as details about the USACE Flood Study process. There were links to the online public comment form embedded throughout the StoryMaps¹.

The StoryMaps were translated into Spanish and Chinese and these versions were promoted through the translated 1-pagers and social media ads (**Table H-4**).

¹ StoryMaps can be found here:
<https://storymaps.arcgis.com/stories/6f7b4530c8bc42b4a29b68b703be4f6a>

Table H-4: Page Views of StoryMaps

Language	Total Views as of 3/29/24
English StoryMaps	3,839
Spanish StoryMaps	431
Chinese StoryMaps	600
Total	4,870
Click-throughs to Public Comment Form	31

4.1.3.5 Presentations to Community-Based Organizations (CBOs)

The Engagement Team reached out to over 165 CBOs throughout San Francisco offering presentations and sharing information about upcoming events. A total of 21 CBO presentations were given, with 320 attendees, collectively.

4.1.3.6 San Francisco Unified School District Engagement

The Port hosted four Mayor's Senior Fellows for ten weeks to lead a youth engagement series in partnership with SFUSD. The engagement was two-pronged, including: (1) guiding high school students through the USACE public comment process for the USACE Draft Plan, and (2) giving classroom presentations to SFUSD high school students on climate adaptation career pathways.

During the 60-day USACE public comment period, the Mayor's Senior Fellows prepared and led a presentation to SFUSD's Climate Action Fellows on how to give public comment on the USACE Draft Plans. This presentation was paired with a briefing from Port staff on the Draft Plan as well as a discussion on the impact of giving public comment on government projects. The Climate Action Fellowship is a group of high school students, representing each SFUSD high school, who have a dedicated interest in climate activism. Furthermore, students were encouraged to attend the USACE public meeting at the Exploratorium, where they could give public comments in person.

4.1.3.7 CAC, Tenant, and Leadership Briefings

In addition to citywide community engagement, the Port continued to engage community advisory committees (CACs), tenants, and partners. Port staff presented at multiple public hearings, including the Port Commission, Board of Supervisors Land Use Committee, Planning Commission, Historic Preservation Commission (2), SFMTA Board (2), SFPUC Commission, and the Capital Planning Committee. The Historic Preservation Commission and SFMTA Board passed resolutions commenting on the Draft Plan and directing the Port to incorporate these comments into the formal City comment letter on the Draft Plan. In total, 3 CAC, 12 Tenant, and 23 City Leadership briefings were completed. **Table H-5** includes a list of city board and commission hearings where briefings occurred.

Table H-5: City Board and Commission Hearings

No.	Date	Hearing Body
1	Mon 2/5/24	Youth Planning Commission
2	Tue 2/6/24	Port Commission
3	Wed 2/7/24	Historic Preservation Commission
4	Thu 2/15/24	BCDC Commission
5	Tue 3/5/24	SFMTA Board
6	Mon 3/11/24	BCDC DRB/WDAC Joint Meeting
7	Tue 3/12/24	SFPUC Commission
8	Thu 3/14/24	Planning Commission
9	Mon 3/18/24	Capital Planning Committee
10	Wed 3/20/24	Historic Preservation Commission – action
11	Mon 3/25/24	Board of Supervisors – Land Use and Transportation Committee
12	Tue 4/2/24	SFMTA Board - action

* All hearings were informational unless otherwise noted.

4.1.3.8 Waterfront Resilience Website and Recorded Online Presentation

The Port updated the WRP portion of the website with content on the Draft Plan including content on the WRP Landing Page and dedicated Draft Plan and Engagement Events webpages. The Port recorded a video of Port staff presenting the Draft Plan and hosted it on YouTube for the public to watch at any time². The video was promoted via the WRP mailing list and on the website.

4.1.4 In-Language Materials

To make information about the Draft Plan available in languages community members are most comfortable using, in-language Spanish and Chinese communications were developed as part of the engagement. These in-language materials included:

- StoryMaps³
- Draft Plan One-Pager
- Community workshops presentation
- Community workshop boards

² The recorded online presentation can be found here:
<https://sfport.com/wrp/draft-plan>

³ The in-language StoryMaps can be found here:
<https://experience.arcgis.com/experience/9fbf274ed6e44219aa9d18d23838acb3>

- Community workshop sign-in sheets
- Workshop comment card
- Online comment card

CBO outreach was conducted to thirteen (13) organizations serving the Hispanic/Latinx community and ten (10) organizations serving the Chinese-American community.

4.2 IFR/EIS Agency Coordination

Following the release of the Draft IFR/EIS, POSF and USACE continued to convene with City agencies to understand their comments and concerns and ultimately finalize the Recommended Plan. USACE continued to host Cooperating and Participating Agency and RAWG meetings throughout the comment review period and following. Comments received on the Draft IFR/EIS from state and federal agencies were used to inform the Final IFR/EIS. Additional analyses were completed and included in the Final IFR/EIS, as the project became more defined.

5.0 Comment Process and Analysis

Comment analysis is a process used to compile and correlate similar public comments into a format to facilitate consideration and response by decision makers and the study team. Comment analysis assists the team in organizing, clarifying, and addressing technical information pursuant to NEPA regulations. It also aids in identifying the topics and issues to be evaluated and considered throughout the planning process.

Each comment submission was logged and assigned a unique identifying number based on when it was received. The identifying number allows specific comments to be linked to the original submissions. Each submission is labeled with a Unique Identifying Number in the upper right-hand corner as “Comment #: X - #” where X represents the method of submission and # represents sequential numbering starting at 001 based on the chronology of submission, unless otherwise indicated below (**Table H-6**).

Table H-6: Unique Identifying Number Methodology

Submission Method	Submission Letter	Numbering	Example
Project Specific E-mail	E	Date and time the e-mail was sent	Comment #: E – 001
Postal Mail	M	Date of letter or postmark if letter not dated	Comment #: M – 001
Comment Cards submitted during Public Meeting	CC	Date of meeting	Comment #: CC – 001
Verbal Comments	V	Date of meeting in order of transcript provided by court reporter	Comment #: V – 001
Online/Website Comment Form	O	Date and time comment form submitted	Comment #: O – 001

Respondents' names and addresses are then entered into a project-specific database, enabling creation of a complete mailing list of all respondents. The database is also used to track pertinent demographic information such as responses from special interest groups or federal, state, tribal, county, and local governments.

Submittals received during the public comment period were analyzed in a series of stages. First, USACE read each piece of the submittal to identify discrete points expressed by the individual, each of which is a "comment". Therefore, there will be more "comments" than "submittals" in the analysis as many submittals included multiple points. All comments were reviewed as "in-scope" or "out-of-scope", as well as "substantive" and "non-substantive". In-scope comments were those that addressed findings of the draft IFR/EIS while out-of-scope comments included those addressing issues unrelated to the draft IFR/EIS and/or the SFWCFS. Substantive comments are those comments that:

- a. question, with reasonable basis, the accuracy of the information in the draft IFR/EIS;
- b. question, with reasonable basis, the accuracy of the environmental analysis;
- c. develop and evaluate reasonable alternatives other than those presented in the draft IFR/EIS;
- d. present new information relevant to the analysis;
- e. advocate changes to the proposal or alternatives; or,
- f. suggest factual corrections.

Non-substantive comments are those that:

- value-type comments that do not include justification or facts to support the statement (e.g. The Federal government is illegitimate);

- in favor of or against measures, the proposed action or alternatives without reasoning that meet the criteria for a substantive comment;
- only agree or disagree with policy or decisions without justification or supporting data that meet the criteria for a substantive comment;
- do not pertain to the project area or project; or
- take the form of vague, open-ended questions.

Consistent with USACE guidance and NEPA, substantive comments were responded to in the final IFR/EIS (40 CFR § 6.203(c)(3)(vi)). Comments expressing no more than the submitter is in favor of or against the proposed action or alternatives, or comments that only agree or disagree with the study are not considered substantive.

Similar substantive comments were grouped together to reflect a unique “comment theme”. The comment theme summarizes the main points or common topics expressed across one or more substantive comments as presented in Section 6.0 Comment themes are also intended to help guide the reader to comments on specific topics of interest. They do not replace the actual comments received from individuals.

The USACE received 154 submittals during the 60-day public comment period, with 242 substantive comments. The comment themes represented approximately 29% of all substantive comments. In Section 6.0 master responses have been prepared for each of the themes. These master responses are also referred to in Table H-7 to address comments as applicable. Section 7 provides a table for the substantive comment and responses. The following is the list of comment themes in Section 6.0 and the percentage of comments per theme:

- a. Sea Level Rise, Groundwater, and Hydrology (10%)
- b. Infrastructure, Flood Protection, Relation to other studies (1%)
- c. Coordination and Planning (7%)
- d. Nature-based Solutions/Engineering with Nature (7%)
- e. Hazardous Materials and Contamination (4%)
- f. Historic Resources (9%)
- g. Socioeconomics and Environmental Justice (5%)
- h. Recreation and Inclusion of Recreational Space (10%)
- i. Transportation, Access, Safety, Public Health (5%)
- j. Study Area and Authority (3%)

Microsoft Excel spreadsheets were used for management of all comments. Substantive comments were entered verbatim into the spreadsheet, unless otherwise noted. The spreadsheet stores the text of all submittals and allows each comment to be coded by topic and issue. Some outputs from the spreadsheet include tallies of the total number of submissions and comments received, and sorting and reporting of comments by a particular topic or issue.

It is recognized that comments from entities or people who chose to respond do not necessarily represent the sentiments of the entire public. It is important to note that this process makes no attempt to treat comments as votes. In no way does content analysis attempt to sway decision makers toward the will of any majority. Content analysis ensures that every comment is considered at some point in the decision process.

6.0 Master Response to Themes

6.1 Sea Level Rise, Groundwater, Hydrology

6.1.1 General Theme

This Master Response addresses comments regarding sea level rise (SLR), also referred to as sea level change (SLC) within the San Francisco Waterfront Coastal Flood Study (SFWCFS); for instance, (i) understanding the SLR projections used in the SFWCFS and adequacy of these SLR projections; (ii) effectiveness of coordination with SLR plans; (iii) adequacy of hydrology/modelling that supports alternatives; (iv) the exponential nature of and uncertainty related to SLR; (v) requesting the use of clear and conservative groundwater rise projections in the Study; (vi) requesting more information on the effects of implementing the measures and cumulative SLR solutions (intended to address impacts of SLR and flooding) proposed in the Recommended Plan, such as effects on Bay currents and the overall Bay environment versus the benefits and objectives of the Plan.

6.1.2 Master Response 1

6.1.2.1 Sea Level Rise

The plan formulation process (summarized in the final IFR/EIS Executive Summary Section ES.2 and described in detail in final IFR/EIS Chapter 3) assumed relative sea level change (RSLC, or local rate of SLR) to be inherently uncertain and used an approach to account for this uncertainty. The RSLC scenarios are provided graphically in Figure 2-8 and numerically Table 2-6, in the final IFR/EIS, Section 2.3.5. Additional information on RSLC is provided in Appendix J, *Changing Hydrologic and Meteorological Conditions*.

The alternatives are described in the final IFR/EIS Section 3.8, Focused Array of Alternative Plans, and include a range of measures that vary in approach to addressing future coastal flooding. Additionally, the final IFR/EIS presents a sea level rise adaptation plan (final IFR/EIS, Section 5.3) based on a series of proposed actions over time. The rate of RSLC and updated future projections of RSLC would inform the timing of subsequent actions. The analysis of RSLC, groundwater, and hydrologic conditions (final IFR/EIS, Section 4.3) was based on the best available science applicable to the project's study area at the time the NEPA analysis was prepared.

6.1.2.2 Future Sea Level Rise Uncertainty

The final IFR/EIS acknowledges the rate of future RSLC is based on many factors that are uncertain, including the rate at which global temperatures will change, the rate at which land based ice may melt, and the rate of subsidence and uplift of the local ground surface. Multiple projections of future RSLC were evaluated to consider the range of these uncertainties relative to the study area and can be reviewed in Appendix J *Changing Hydrologic and Meteorological Conditions*. The Federal Sea Level Rise Task Force used the best available observational data and climate science to develop RSLC observation-based extrapolations of RSLC through 2050. Future updates of the RSLC observation-based extrapolations will be instrumental in estimating RSLC post 2050, when the rate of RSLC has a higher degree of uncertainty.

6.1.2.3 Bay Currents

Potential environmental impacts from changes in Bay currents are summarized in the final IFR/EIS Main Report, Section 4 *Effects and Consequences of Alternative Plans*. Appendix B, *Engineering* provides additional information on the potential impact of the alternatives on Baywide tidal dynamics. The potential for hydrodynamic impacts on the Bay can be minimized using modern seawall designs and NNBFs. However, these are design details that are beyond the scope of the feasibility phase. These design details will be evaluated and incorporated during preconstruction engineering and design (PED).

6.1.2.4 Groundwater

The hydrologic and water quality characteristics of groundwater within the study area is discussed in final IFR/EIS Sub-Appendix D.1- *Environmental and Cultural Technical Appendix*, Section 3.8 *Groundwater*. Background information on the characteristics of the existing and potential future groundwater table with RSLC within the study area is provided in final IFR/EIS Appendix J *Changing Hydrologic and Meteorological Conditions*, Section 6.4 *Shallow Groundwater. Response to Sea Level Rise*. The final IFR/EIS assessed the potential impacts to groundwater elevations and those resulting from potentially higher ground water elevations (final IFR/EIS Sub-Appendix D.1 *Environmental and Cultural Technical Appendix*, Section 4.13 *Groundwater*).

6.2 Infrastructure, Flood Protection, Relation to Other Studies

6.2.1 General Theme

This Master Response addresses comments regarding the structural integrity and safety of hardened infrastructure (seawalls, berms and levees) and proposed flood protection measures to protect against flooding and their potential impacts to the environment and public safety. Commenters expressed general concern with the constructability of the alternatives evaluated, as well as methods for determining wall heights. Such comments often identified general issues, while some conveyed

commenter's personal belief that the alternatives evaluated were not feasible due to potential impact to personal resource interests, or the alternative was not sustainable.

6.2.2 Master Response 2

Formulation of the alternatives was intended to cover a wide range of relative sea level change scenarios. The crest elevation and resulting height of the walls and berms is set based on the combination of an extreme 1% annual chance bay water level plus the effect of waves and relative sea level change target. This is defined in more detail in Appendix B, Section 3.3.

As water levels in the Bay rise and the constructed coastal defenses are more frequently utilized to hold back flood waters, there is a life safety risk associated with a failure or breach of the defenses. This risk is studied in detail in a Semi-Quantitative Risk Assessment included in Sub-Appendix B.2 and found to be low risk until the subsequent adaptation action is required. Potential failure modes identified in this assessment are important considerations in designing the wall and levee measures and the Recommended Plan has incorporated these cases into the scope of the project by selecting high confidence, robust engineering solutions.

Construction feasibility of the Recommended Plan was evaluated by the study team which included staff with experience in heavy civil and maritime construction. Constructability factors such as staging, logistics, labor and equipment constraints, and mitigation requirements were factored into the construction duration, selection of measures, and cost estimate.

The purpose of NEPA is to inform decision makers and the public of the impacts that could result from implementing a Federal action and to ensure that the public has adequate opportunity to provide comment on the action. Commentors suggested that some of the proposed measures under various alternatives, including hardened infrastructure and flood protection measures, would result in environmental consequences. Consistent with the intent of NEPA, the final IFR/EIS evaluates a range of alternatives and discloses foreseeable environmental effects (see final IFR/EIS, Section 4 and Appendix D). The final IFR/EIS, *Appendix A: Plan Formulation*, presents a range of individual measures considered during the formulation of alternatives, as well as the screening criteria used to refine these measures to develop the alternatives evaluated in the EIS. The engineering processes for determining infrastructure characteristics are detailed in the final IFR/EIS, *Appendix B: Engineering*.

6.3 Coordination and Planning

6.3.1 General Theme

This Master Response addresses comments that questioned the adequacy of agency coordination and implementation planning. This response also includes comments that consider the extent of the study area. Commenters expressed the importance of coordination with the City and County of San Francisco (City) and its relevant departments on their sea level rise activities, the Port of San Francisco's (POSF) commercial development planning, and potentially impacted transportation agencies in

the development of the Draft Integrated Feasibility Report and Environmental Impact Statement (DIFR/EIS). Commenters expressed concern for the adequacy of San Francisco Bay-wide SLR coordination between all waterfront stakeholders and propose that the State of California establish a lead agency to oversee and coordinate all strategies.

6.3.2 Master Response 3

Robust engagement has been conducted since 2017 through Waterfront Resilience Program Community Engagement which included connection with City departments, community members, business and merchants, Ports tenants, advisory committees, non-profit groups, city officials, and other agencies. The USACE coordinated closely with the POSF as the non-federal sponsor for the project, named Participating Agencies and members of the Resource Agency Working Group throughout the study (Appendix H).

Coordination with POSF includes extensive consideration of how planned commercial development activities align with the flood risk management measures throughout the study, to include adapting sites to future RSLC or designing to connect to higher ground based on planned commercial development.

The POSF has continued to convene with City agencies following the release of the DIFR/EIS to understand comments and concerns and work towards a Recommended Plan for the Final Feasibility Report (Appendix H). Transportation impacts were assessed in coordination with potentially impacted transportation agencies such as the San Francisco Municipal Transportation Agency, Bay Area Rapid Transit, and the California Department of Transportation (Appendix E, Section 3.2.1) to defend transportation facilities against flooding and avoid or minimize disruptions to services from construction and storm events. The Monitoring and Adaptation Plan (MAP) outlined in final IFR/EIS, Section 6.0, recognizes that coordination and involvement of resource agencies, USACE, Port, City, and state are needed to manage risks over time.

The establishment of a single state agency to coordinate San Francisco Bay Wide efforts and act as a lead agency is outside the authority of the USACE or the Port to consider.

Under the National Environmental Policy Act (NEPA), a public meeting is not required when final IFR/EIS documents are published. However, some agencies may choose to hold a public meeting or informational session voluntarily. If a public meeting occurs at this stage, it is generally intended to: (1) present the final EIS findings to the public; (2) explain changes made in response to final comments on the Draft EIS; and/or (3) clarify the next steps, including the upcoming Record of Decision. Unless supplemental NEPA documentation is required, there is no statutory requirement to host additional public comment periods.

The USACE is committed to informing the public of project progress as plans move forward. Any transportation closures will be communicated to stakeholders early and often, and a Public Affairs point of contact will be available to respond to any questions. If deemed practical, public information meetings may be hosted in the future and notice of any future meetings would be widely disseminated.

The USACE also commits to coordinating with the non-federal sponsor, city, state and federal agencies, and stakeholders during PED to develop communication plans to inform and engage the public during later design phases. Communication plans would detail community outreach, identify construction sequencing, notify of traffic disruptions, etc.

6.4 Nature-Based Solutions/Engineering with Nature

6.4.1 General Theme

This Master Response addresses comments that question the adequacy and/or extent to which Natural and Nature-Based Features (NNBFs) and the principles of “Engineering with Nature” (EWN) were considered in the development of the alternatives. Commenters recommend consideration of carbon-neutral concrete and incorporation of nature-inclusive design features following BSI institute PAS1401 guidelines. Commenters offered suggestions for how alternatives could further consider NNBFs for specific areas which included parks or natural features at Fisherman’s Wharf and Embarcadero, removing Islais Creek as a navigable creek and/or removing infrastructure along the creek, considering the back bay west of Islais Creek bridge for tidal marsh wetlands. Commenters recommend consideration of existing projects as connections to the Study or offered examples of perceived successful NNBFs for consideration which included the Folsom Stormwater Improvement Project, Crissy Field berms, and Millbrae and Burlingame Shoreline Area Protection and Enhancement Project. Commenters expressed general support for inclusion of NNBFs, as well as support of opportunities to add native oyster restoration (Reach 3 and 4) and expansion of the Heron’s Head Oyster Reef Project.

6.4.2 Master Response 4

Alternatives were developed and evaluated that combined a broad suite of flood risk management structural, non-structural, and NNBFs in addition to a No Action Alternative. Collaboration with experts and environmental agency teams, the Resource Agency Working Group and the Engineering with Nature Working Group (Appendix I) occurred to help identify where and which NNBFs should be considered within the study area and helped describe how NNBFs contribute to regional habitat goals and feasible project benefits.

Screening criteria were developed to identify and evaluate appropriate NNBFs across all Future with Project (FWP) alternatives (Appendix A). After measures were screened, retained measures were used to develop alternative plans based on defend, accommodate, retreat, and hybrid strategies. All FWP alternatives included a feasible range of NNBFs selected specifically to address wave hazards by dissipating wave energy and reducing the potential for wave runup and wave overtopping along the shoreline. The Recommended Plan, as presented in the final IFR/EIS, includes NNBFs throughout the study area.

The Port launched a living seawall pilot study to test surface texture and a concrete mix, aiming to evaluate the success of creating and improving habitats for native biota along

seawalls (Appendix I) for consideration in the Recommended Plan. Ecological armoring is a feature being considered that includes other precast material such as eco-concrete (Appendix I). Large-scale wetland restoration falls outside of the scope of this study.

Several of the existing projects recommended were reviewed during development of alternative NNBF strategies.

6.5 Hazardous Materials and Contamination

6.5.1 General Theme

This Master Response addresses comments regarding how hazardous materials and contaminants were addressed in the Study. Some comments assert there is a lack of detail in the DIFR/EIS regarding remediation of hazardous waste, how wastewater should be routed to the bay, how contaminants mobilized by SLR and rising groundwater are addressed, protection of the quality of bay waters as a result of increasing stormwater, and sewage outflows to the bay.

6.5.2 Master Response 5

6.5.2.1 Hazardous Materials

An overview of the federal and state regulatory requirements addressing hazardous materials is provided in the final IFR/EIS, Annex D.1.6, *Hazardous, Toxic and Radioactive Waste*. The appendix also identifies locations meeting classification as a potential hazardous, toxic, and radioactive waste (HTRW) site within the project area as part of the existing conditions, as well as an evaluation of environmental consequences with implementation of the alternatives. Additionally, it provides the steps that the USACE and local sponsor must follow to ensure HTRW is adequately addressed during construction and operations of the project. The project will be required to follow USACE policy and guidance, and Federal law with respect to managing and mitigating risks from hazardous materials prior to construction.

6.5.2.2 Wastewater and Stormwater

The final IFR/EIS, Sub-Appendix D.1, *Environmental and Cultural Technical Appendix*, discusses construction and operational-related impacts of the project on existing wastewater and stormwater conveyance and treatment systems. The appendix also discusses impacts of constructing project features on water quality including stormwater and the mechanisms which could affect stormwater quality. The project would employ Best Management Practices (BMPs), as summarized in the final IFR/EIS, to ensure any potential discharges are monitored and meet applicable regulatory numeric standards.

6.5.2.3 Groundwater Quality

The final IFR/EIS, Annex B.1.5 *Qualitative Shallow Groundwater Assessment*, provides an overview of the characteristics of the shallow groundwater within the project's study area. It is acknowledged in this annex that uncertainty exists regarding the

characteristics of groundwater within the study area. However, to better understand the scope of groundwater characteristics with the study area, field tests could be conducted during the pre-construction, engineering, and design phase.

6.6 Historic Resources

6.6.1 General Theme

This Master Response addresses comments that question inclusion of some historic buildings and structures and requests coordination with the National Park Service (NPS) and Aquatic Park Swim Clubs. A commenter emphasized the community's view of the NPS Municipal (Muni) Pier and its historical significance and requests information be included about who will take on the rebuilding the structure. A commenter stated the study did not include analysis of impacts of historic trail elements including the portions of the Pony Express National Historic Trail (NHT) and the Butterfield Overland NHT that fall within the planning area and recommended the Study consider both trails in its analysis.

6.6.2 Master Response 6

All cultural resources investigations, identification, evaluations, assessments, and mitigation will occur during the PED phase of the project, as designs are refined, and will be guided by a Programmatic Agreement (PA) between the State Historic Preservation Office (SHPO) and the USACE (Annex D.3.1). The Area of Potential Effects (APE) will include direct, indirect, and cumulative effects of the project, will be determined in consultation with the SHPO and consulting parties to the PA, and will be revised prior to implementation or construction of each project component. The project is anticipated to have marine, terrestrial, air quality, auditory, vibratory, and visual effects. Effects to all known and newly identified cultural resources within the APE which are identified as eligible for listing on the National Register of Historic Places (NRHP), National Landmarks, and National Historic Trails will be evaluated, and adverse effects determined. The USACE will work with the SHPO and parties to the PA to avoid or minimize adverse effects where possible. Where avoidance is not possible, all adverse effects will be resolved as outlined in the PA, using an appropriate and agreed upon mitigation strategy.

USACE shall ensure that all work will be carried out pursuant to the PA by or under the direct supervision of the appropriate professionals who meet or exceed the Secretary of the Interior's Professional Qualifications Standards (36 CFR Part 61) for the associated discipline, and that all cultural resources work is performed in a manner consistent with the Secretary of Interior's *Standards and Guidelines for Archeology and Historic Preservation* (48 FR 44716-44740; September 23, 1983), as amended, or the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (36 CFR Part 68), as appropriate.

The documentation of above-ground historic and architectural resources shall follow the guidelines and standards provided in the Secretary of the Interior's *Guidelines for Architectural and Engineering Documentation*; The Secretary of the Interior's *Standards*

for Rehabilitation (36 CFR Part 67): Guidelines for Rehabilitating Historic Buildings, Guidelines on Flood Adaptation for Rehabilitating Historic Buildings, and Guidelines on Sustainability for Rehabilitating Historic Buildings; The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings (Part 1: Preservation and Rehabilitation, Part 2 - Reconstruction and Restoration); and Guidelines for the Treatment of Cultural Landscapes, as well as those set forth in the California Historical Building Code (CHBC), defined in Sections 18950 to 18961 of Division 13, Part 2.7 of Health and Safety Code (H&SC).

The study includes coordination with the NPS, as a Cooperating/Participating Agency and member of the Regulatory Agency Working Group (RAWG) to address coordination guidelines that offer comprehensive information on how to adapt historic buildings to be more resilient to flooding while preserving historic character and addressing risks, as well as whether the conceptual approaches for treatment of historic properties could be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties to qualify for historic tax credits (Appendix H).

According to the NPS, the Butterfield Overland National Historic Trail is not within the project area, and thus, would not be considered as part of this Study. While the Pony Express NHT alignment crossed the project area, there are no physical remnants of the trail in the project area that could be affected. Coordination with the NPS will continue in the preconstruction, engineering, and design phase to address interpretation of affects to the Pony Express NHT.

6.7 Socioeconomics and Environmental Justice

6.7.1 General Theme

Comments expressed concern about the adequacy of alternatives addressing socioeconomic and environmental justice impacts that addresses businesses, commercial development, frontline and disadvantaged communities (Bayview District, Hunters Point, Mission Creek, Mission Bay), employment, and tenants/residents (taking assets, displacement and relocation). Several commenters expressed interest in greater response to equity and environmental justice concerns. Other commenters expressed interest in including a greater portion of the Bayview neighborhood south of Heron's Head Park in the Study. One comment mentioned equity related to historical equity concerns, including landfills and toxic waste sites.

6.7.2 Master Response 7

The Study addresses socio-economic implications of flood risk in the project area and the impacts of coastal flooding and sea level rise on disadvantaged businesses, legacy businesses, affordable housing, and socially vulnerable populations in San Francisco. Detailed data, analyses, and methodologies can be found in the final IFR/EIS, Sub-Appendices E.1 (RED Report) and E.2 (OSE Report).

Pursuant to Executive Order (E.O.) 14173, executive orders requiring consideration of environmental justice, including E.O. 12898, have been rescinded. Consequently, the

analysis in the final IFR/EIS no longer references “environmental justice” or the rescinded executive orders. The final IFR/EIS evaluated the potential effects to all communities, to include whether disproportionate effects could be realized by communities in the project area. The final IFR/EIS emphasizes the importance of addressing equity by ensuring that proposed actions do not disproportionately affect communities (*Appendix E: Economic and Social Consideration* and Executive Summary).

The Study Area extends from Aquatic Park to Heron’s Head Park. For areas outside of the Study boundary, the City and County of San Francisco have received funding to develop a San Francisco Shoreline Adaptation Plan. The San Francisco Shoreline Adaptation Plan is led by the San Francisco Planning Department, in coordination with the Office of Resilience and Capital Planning, Port of San Francisco, and other City agencies. It will coordinate resilience strategies along the entire Bay shoreline, including adaptation to sea level rise, coastal flooding, and rising groundwater, consistent with SB272 and the BCDC Regional Shoreline Adaptation Plan guidelines.

6.8 Recreation and Inclusion of Recreational Space

6.8.1 General Theme

Several commenters raised issues about health and safety impacts to recreation, specifically as it pertained to stormwater and sewage treatment infrastructure plans. Additionally, commenters encouraged avoiding creation of stagnant water conditions that can encourage algal blooms. Comments mentioned prioritization of recreational spaces and suggested that waterfront resilience work be paired with a re-design of the Bay Trail to accommodate a variety of user groups (e.g., pedestrians, those on bikes) in a way that reduces conflicts and considers future usage levels of the Bay Trail. Commenters suggested the Embarcadero be designated as pedestrian and cyclist only, excluding vehicles, to result in health and environmental benefits. Commenters also encouraged continued maintenance of safe access to Bay waters for boating and swimming, with one commenter noting the need for wheelchair accessible points.

6.8.2 Master Response 8

The final IFR/EIS, Section 4 and Appendix D disclose potential effects to water quality, sewage and stormwater outflows, and utility infrastructure from implementation of alternative plans. Additionally, Appendix D details Best Management Practices that would be used during construction to avoid and minimize impacts that could degraded recreational spaces and water quality. Any discharge from construction or operations would meet regulatory standards.

The Recommended Plan maintains recreational space to the greatest extent practicable while meeting the purpose of coastal flood risk management, as well as offers additional recreational space with the inclusion of Natural and Nature Based Features. Access to the waterfront would be maintained to the greatest extent practicable as to not remove recreational opportunities for waterborne activities. Suggestions for additional recreation

opportunities are noted but are outside of the scope and intent of the Study, thus were not carried forward in the Recommended Plan.

6.9 Transportation, Access, Safety, Public Health

6.9.1 General Theme

Commenters expressed concern about potential traffic delays, impacts to commutes, and overall disruptions to neighborhoods and businesses that would occur during construction, and particularly to third and fourth street bridges. Other comments described inadequacies in existing roadways, bike lanes, and walking paths, requesting updates or conversions to green space in select locations.

6.9.2 Master Response 9

The final IFR/EIS discloses potential impacts expected to transportation corridors in Annex D.1.4 based on the design details available at the time of the Study. Impacts to transportation corridors would be unavoidable during construction, but the USACE and the Port would work with transportation agencies to develop plans to minimize the impacts to the greatest extent practicable as required by AMM-TR-1, described in sub-appendix D.1. Alternative routes are traditionally made available to avoid impacting emergency response activities; however, delays to commutes and increased traffic is likely to happen. Construction would not occur all at once; thus, transportation impacts would not be compounded across the entire study area, rather staggered throughout smaller sections over-time. Alternative transportation routes or changes in traffic patterns would be evaluated during the preconstruction, engineering, and design phase.

Noise and vibration impacts are evaluated in annex D.1.2, and light pollution is discussed in sub-appendix D.1 Section 3.18, Aesthetics. Impacts from noise, light, and vibration during construction would be minimized to the greatest extent practicable to reduce impacts to communities adjacent to transportation corridors.

The purpose of the Study was to evaluate alternatives to address risks from coastal flooding events. Although transportation corridors would be altered, the intent is to return roadways, bike lanes, and walking paths to pre-construction condition following relevant transportation agency requirements. It is not the purpose of the Study to improve transportation corridors outside of protecting against coastal flooding.

6.10 Study Area and Authority

6.10.1 General Theme

This Master Response addresses comments expressing the desire for additional locations outside of the designated study area to be considered under the project. Additionally, this response addresses comments requesting specific considerations that fall outside of study authorization and scope.

6.10.2 Master Response 10

The Study Area extends from Aquatic Park to Heron's Head Park. For areas outside of the Study boundary, the City and County of San Francisco have received funding to develop a San Francisco Shoreline Adaptation Plan. The San Francisco Shoreline Adaptation Plan is led by the San Francisco Planning Department, in coordination with the Office of Resilience and Capital Planning, Port of San Francisco, and other City agencies. It will coordinate resilience strategies along the entire Bay shoreline, including adaptation to sea level rise, coastal flooding, and rising groundwater, consistent with SB272 and the BCDC Regional Shoreline Adaptation Plan guidelines.

Section 1, Introduction, in the final IFR/EIS Main Report, defines the study authority, purpose and need, study area, and scope. Requests and preferences that do not directly support the project purpose and need and/or fall outside of study authorization, area, or scope may not be considered for inclusion in the project.

7.0 Substantive Comments and Responses

Table H-7 provides the submittal and comment number, name and/or organization of the commenter, as well as the comment and USACE response. Where a master response was sufficient to address the comment, the master response number is referenced. Reference to relevant appendices for additional information is also provided.

Table H-7: Substantive Public Comments and USACE Responses on the SFWCFS Draft IFR/EIS

Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-053	2	City of San Francisco	Project level design detail and construction sequencing will be required to fully evaluate potential impacts of construction and operation of the project and to develop adequate mitigation.	A statement has been added to annex D.1.4, <i>Transportation</i> , Section 2.4 <i>Mitigation</i> , to address the concern. The design, construction sequencing, and operations and maintenance of the project would be revisited during the preconstruction, engineering, and design phase (PED), which develops detailed designs to prepare the project for construction, to determine if the potential impacts were considered and disclosed in the Final Environmental Impact Statement from the study, and that mitigation measures were developed appropriately. If it is determined during PED that new, for example, effects could occur as a result of the project that were not previously considered, or decision changes occur that require a new federal decision, supplemental National Environmental Policy Act (NEPA) analysis may be required.

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-021	1	Public Commenter	The San Francisco Waterfront Flood Study Plan is a crucial step in protecting the unique biodiversity of San Francisco Bay and its waterfront parks. The plan includes incorporating living shoreline components in built structures, using bird-safe building design with local landscaping, expanding creek day lighting, and using only dark skies compliant lighting in adaptation structures. San Francisco Bay and waterfront parks draw people to connection with nature, and re-creations of historic wetland and shoreline parks have been successful. Over 200 species of birds have been observed at Heron's Head Park, and there are additional potential sites for projects combining living shorelines, native oysters, wetlands, and shoreline parks at Warm Water Cove, Crane Cove, and China Basin Parks. Climate change predictions include droughts, heavy rains, high tide events, and sea level rise. Wetlands with native shoreline and upland plants can counter some of these effects while supporting marine and shoreline organisms. Wetlands are essential to supporting coastal communities and marine-related jobs. Heron's Head Park and Pier 94 have an endangered plant, California Seablite, which has thrived at these sites and is host to the Western Pygmy Blue butterfly. The Port and local nonprofit partners have been restoring native Olympia oysters,	As noted in sub-appendix D.1, <i>Environmental and Cultural Technical Appendix</i>, the project would follow city bird-safe building design standards to the best extent practicable for lighting, building modifications, or structure raising, as appropriate. The plan incorporates natural and nature-based features which provide ancillary benefit to people and the natural environment. Consideration was given to the project's potential impacts to aquatic and terrestrial plant and animal species, as described in sub-appendix D.1.

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
			which improve water quality, buffer the shoreline from high tides and storm surge, and provide food for birds like the local nesting Black Oystercatcher and other shorebirds. All new and rebuilt structures should be built using bird-safe building design and the most up-to-date dark skies approved lighting fixtures and methods of application. All Port properties and tenants should use local native plant landscaping to support biodiversity. This unique opportunity will impact the future of people and the future of biodiversity in San Francisco.	
DIFR/EIS-E-053	1	City of San Francisco	To ensure the feasibility of the transportation mitigation measure, the draft report/EIS should include a comprehensive transportation disruption mitigation program to fund alternative transit planning, active transportation facilities, emergency services access, and traffic rerouting. The mitigation program should identify clear roles and responsibilities necessary to implement the measure and be designed in close coordination with the community and project stakeholders.	Annex D.1.4, <i>Transportation</i>, addresses the construction and permanent effects on movement of vehicles, trains, light rail and bus transit, ferry, pedestrian, and bicycle use and access. This section identifies the substantial direct and indirect impacts to transportation expected from construction, although this may vary across the waterfront. Several mitigation measures are identified such as preparation of construction traffic management plans and close coordination with transportation providers, the City, Caltrans, Port, and the public.

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DIFR/EIS-E-053	3	City of San Francisco	Include additional planning efforts such as the ConnectSF Transit Strategy and Streets and Freeways Study, Link21, Railyards, Pennsylvania Ave Extension (PAX), Muni Metro Modernization, Central Subway Extension, Geary/19th Ave Subway Study, Active Communities Plan, Muni Service Equity Strategy, Embarcadero Enhancement, General Plan, 20 Year Capital Plan and the SF Transportation Plan. Also recommend including the BCDC/MTC Sea Level Rise Investment Framework.	The USACE will follow local regulations to the greatest extent practicable during construction. Additional details would be developed during PED.
DIFR/EIS-E-053	10	City of San Francisco	The table does not include transportation infrastructure such as substations and supporting infrastructure which is important for aspects of the transportation sector for providing transit service. Update the table to include transportation infrastructure.	The anticipated impacts to San Francisco Municipal Transportation Agency (SFMTA) infrastructure assets and capacity were evaluated annex D.1.4, <i>Transportation</i> , Table D.1.4-4. Assets include substations, bridges, and supporting infrastructure such as yards, trackwork, and storage facilities.
DIFR/EIS-E-053	11	City of San Francisco	There is a statement that says “The TNBP would have minimal impact on the transportation infrastructure along the waterfront”. Impacts from construction, operation, and maintenance of the TNBP would be significant and in some cases unavoidable, even with mitigation. Recommend reviewing the impact analysis and revising conclusions.	The statement from annex D.1.4, <i>Transportation</i> , section 2.3.3.1.2 addresses relocation or prolonged flooding to major transportation infrastructure. The conclusion of the impact analysis reflected waterfront or water-based transportation infrastructure after consideration of buildings that would be demolished with the project, and references transportation infrastructure that relies on waterfront buildings, such as ferries. The statement has been clarified in this section to reflect waterfront or water-based transportation infrastructure.

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DIFR/EIS-E-053	13	City of San Francisco	SFMTA recommends an additional mitigation measure to increase redundancy in the transportation network to avoid significant impacts during construction, such as expanding rail, bike, and pedestrian infrastructure. This mitigation measure should be developed in close coordination with SFMTA and include elements identified in the forthcoming Embarcadero Connective Plan, among other relevant plans.	Section 2.4 of annex D.1.4, <i>Transportation</i> , references several mitigation measures to provide suitable detour routes for pedestrian, bicycle, and transit systems under AMM-TR-2, AMM-TR-3, and AMM-TR-4. The mitigation measures identify coordination needs with multiple transportation agencies. The USACE notes that the public should be notified of any changes in transit routes or access during construction. These measures focus on retaining or maintaining access rather than proactive expansion of low-cost mobility infrastructure that creates system redundancy.

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DIFR/EIS-E-053	14	City of San Francisco	In addition to the measures identified in AMMTR-1, the SFMTA recommends inclusion of the following: • Coordination with SFMTA and other City agencies on the development of a robust public outreach plan. • When detours for transit, other vehicles, and/or pedestrians and bicyclist are implemented, require that police officers or parking control officers monitor critical locations along the detour to promote unobstructed travel by vehicular traffic, transit, and people walking and bicycling. • Require contractors to provide carpool, bicycle, walk and transit access for construction workers. • In addition to "emergency services alternative routes for essential services" say something like: The construction contractor(s) shall submit a project corridor segment-specific emergency access response plan as part of compliance with bid specifications. This plan shall include fire department and emergency service access to construction areas and maintainability of access of emergency services such as fire hydrants.	See Master Response #9
DIFR/EIS-E-053	15	City of San Francisco	The mitigation measure/avoidance and minimization measure should include a requirement to identify or develop performance standards for items such as bus bridges for rail transit, transit rerouting, and other mitigation actions to allow evaluation to determine that it meets the needs of the people who use the infrastructure, including evaluation of alternative pedestrian and bicycle access	See Master Response #9

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			measures. Performance standard must be identified in coordination with the SFMTA.	
DIFR/EIS-E-053	16	City of San Francisco	The mitigation measure/avoidance and minimization measure should include a requirement to develop a performance standard by which to evaluate whether alternative transit access – including paratransit access- during construction provides adequate service to users of the affected routes. This performance standard must identified in coordination with the SFMTA.	See Master Response #9
DIFR/EIS-E-053	18	City of San Francisco	Suggestion to update all figures/Transportation to include critical transportation supporting infrastructure and various public transportation lines and features	Transportation supporting infrastructure, Muni routes, bike lanes, and transit stops are identified on the Alternative figures provided in annex D.1.4, <i>Transportation</i> .
DIFR/EIS-E-053	20	City of San Francisco	Recommend including and reviewing the Muni Equity Strategy and Environmental Justice Framework for the General Plan.	See Master Response #7
DIFR/EIS-E-053	22	City of San Francisco	SFMTA comments on AMM-TR-1, AMM-TR-2, AMM-TR-3, and AMM-TR-4 would also apply to AMM-CIA-EJ-2 and AMM-CIA-EJ-2.	See Master Response #9
DIFR/EIS-E-053	23	City of San Francisco	The top sentence of the page states, "all ground disturbance for access and staging areas would be temporary and fully restored to result in no permanent loss." Is this a mitigation measure? If so, please revise to identify as a mitigation measure.	The statement regarding ground disturbance for access and staging is not a mitigation measure, it is simply an assumption that ground disturbance is temporary and therefore does not result in permanent loss of environmental and cultural resources. Temporary impacts, such as the ground disturbance, are expected to be returned to pre-existing conditions upon construction completion.

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DIFR/EIS-E-053	24	City of San Francisco	One of the mitigation measures listed is "purchase carbon offsets" - is there a general idea about where these projects would be located? Please revise to add that offsets should be for the most local GHG offsets available	At present, the project is estimated to generate emissions below de minimus levels. However, if project efforts near or surpass designated de minimus levels, carbon offsets may be needed as mitigation. During PED, emissions analyses would be re-evaluated with updated information to determine whether the significance threshold has been exceeded. At this time, it would be determined if purchasing carbon offsets is needed, and if so, local offset options would be prioritized. Section 4.8.7 in sub-appendix D.1 and Section 2.3.4 in annex D.1.1 have been updated to state: "When applicable, purchase local carbon offsets to the greatest extent practicable as required by federal regulations or USACE policy".
DIFR/EIS-E-053	25	City of San Francisco	One of the mitigation measures says, "Future construction located within 1,000 feet of sensitive receptors would be required to perform an HRA." - when would this HRA occur and recommend specifying this in the mitigation measure. Also, are multiple HRAs going to occur across all these reaches for various different implementing components of the project? Please clarify the mitigation measure. State that during subsequent environmental analysis there would be an HRA	The Health Risk Assessment (HRA) would be conducted during PED when construction specifics and sequencing are known. Section 2.3.4 Mitigation in Appendix D.1.1, <i>Air Quality</i> , has been revised to clarify the HRA protocol.
DIFR/EIS-E-053	29	City of San Francisco	Recommend defining sensitive receptors in Mitigation M-AQ-2.	A definition of "sensitive receptors" was added to annex D.1.1, <i>Air Quality</i> , Section 2.3.4, <i>Mitigation</i> (AMM-AQ-2).

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DIFR/EIS-E-053	30	City of San Francisco	Recommend defining sensitive receptor in AMMNOI-1	A definition of "sensitive receptors" was added to annex D.1.2, <i>Noise</i> , Section 2.3., <i>Mitigation</i> (AMM-NOI-1).
DIFR/EIS-E-053	31	City of San Francisco	Include mitigation measures that address marine equipment that may be required during construction- such as use of renewable diesel and higher tier engines, such as Tier 3 or 4, as feasible. There are no measures that specifically address emissions from marine equipment and barges, etc.	Section 2.3.4, <i>Mitigation</i> (AMM-AQ-2), in annex D.1.1, <i>Air Quality</i> , was revised to state that marine equipment would use the best available control technology for emission reduction to the greatest extent practicable.
DIFR/EIS-E-053	32	City of San Francisco	Text says: Require all on-road heavy-duty trucks to be zero-emission vehicles or meet the most stringent emissions standard at the time of construction, such as a model-year (MY) standard, as a condition of contract. This text is unclear. Propose the following edit: Require all on-road heavy-duty trucks to be zero-emission vehicles or meet the most stringent emissions standard as feasible at the time of construction, such as a model-year (MY) standard, as a condition of contract.	Language in Section 2.3.4, <i>Mitigation</i> (AMM-AQ-3), in annex D.1.1, <i>Air Quality</i> , revised for clarification.
DIFR/EIS-E-053	33	City of San Francisco	Health risk mitigation measures: add "Use electric equipment to the degree feasible"	Section 2.3.4, <i>Mitigation</i> (AMM-AQ-2) in annex D.1.1, <i>Air Quality</i> , was revised to add the "use of electric equipment to the degree feasible to reduce emissions, maintain air quality, and reduce noise impacts."
DIFR/EIS-E-053	34	City of San Francisco	Health risk mitigation measures: Many of these measures are infeasible or impractical. For example, using equipment when receptors are not present may not be practicable in this urban environment. We should not assume that all people leave their homes during the day.	Section 2.3.4, <i>Mitigation</i> (AMM-AQ-2) in annex D.1.1, <i>Air Quality</i> , was updated to address the concern. The mitigation measures have been clarified to state that not all measures will be feasible options across the waterfront and that site-

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				specific measures will be analyzed and recommended as part of the health risk assessment.
DIFR/EIS-E-053	35	City of San Francisco	Construction air emissions mitigation: See comments above about adding mitigations to address emission from marine equipment and to use electric equipment to the extent feasible. Also recommend a catch all that refers to "other measures to reduce emissions as they become feasible in the future"	Section 2.3.4, <i>Mitigation</i> (AMM-AQ-3), in annex D.1.1, <i>Air Quality</i> , was revised to recommend use of electric equipment to the extent feasible, and use of other measures to reduce emissions when feasible as they become available in the future.
DIFR/EIS-E-054	1	Public Commenter	San Francisco Bay and its waterfront parks connect people with nature in a meaningful way. Residents and visitors love the San Francisco waterfront. Shorebirds, gulls, terns, ducks, loons, woodpeckers, hawks, sparrows and wrens can all be seen right in the city. With so many birdwatchers in the area, this should be noted as part of recreational activities	Sub-appendix D.1 notes that the San Francisco Bay Trail offers a setting for wildlife viewing, which would include bird watching, and bird watching is noted as an activity at Heron's Head Park. Potential impacts to bird watching as a recreational activity and disruption to wildlife are disclosed in Section 4 of the final IFR/EIS and in more detail in Appendix D.1.
DIFR/EIS-E-058	4	Public Commenter	The Plan and Appendix D do not address the potential for tsunami events to exacerbate sea level rise (SLR) and groundwater rise impacts. This oversight is crucial as a combination of tsunami events, SLR, storm surge, flooding, and groundwater rise could create conditions similar to Hurricane Katrina. Earthquake tsunami readiness for both local and distant events must be clearly outlined for responsible parties to assess SLR and groundwater rise impacts. The Plan needs to be prepared for a tsunami surge that	Sub-appendix D.1 acknowledges the potential for seismic activity to result in tsunamis or seiches, presenting a hydrologic hazard, particularly with respect to low-lying coastal areas. The USACE, in partnership with the non-federal sponsor, evaluated alternatives to address the risk of coastal flooding associated with concurrent relative sea level change, extreme high tides, and

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			could hit at least 11 feet above current sea levels, and if the Hansen team's 2016 data is used, the tsunami danger could produce an even higher swell exceeding 7.5 meters.	coastal storm surge and wave action. The potential flooding associated with tsunamis is addressed in the San Francisco building code as detailed in ASCE 7. As described in these design documents, tsunami flood hazards are not mitigated by way of coastal flood reduction measures but by the design of structures to resist imposed hydrostatic, hydrodynamic, and debris loads. The Recommended Plan defense features are consistent with this recommended approach.
DIFR/EIS-E-001	1	Public Commenter	Antarctica's Thwaites Glacier, comparable in size to Florida, is gradually slipping, causing a potential two-foot rise in sea levels. However, this represents just the tip of the iceberg, as it is part of a group of glaciers that mutually support each other. The "cork" for the entire group is being melted by warming seas, implying that a two-foot rise is the minimum projection, with the maximum exceeding six feet. Vulnerable areas of the greater Bay Area, including cities, open spaces, agricultural lands, and parts of the Central Valley, would face inundation. Addressing these rising sea levels necessitates innovative thinking. While levees, dikes, and walls can deter tides, they may not be effective against rising water tables or saltwater intrusion. These could lead to flooded basements, compromised swimming	Appendix A, <i>Plan Formulation</i>, provides information on the array of alternatives the USACE considered and the results of the alternatives screening process. An operable gate at the Golden Gate was evaluated as a potential measure, but it was screened from detailed consideration because of cost, environmental impacts, and challenges related to governance. See Master Response #1

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			pools, liquefaction, and limitations on landscaping and crops. An alternative solution proposes a barrier with shipping gates at the shoal area a mile west of the Gate, known as the Golden Gate Potato Patch. This barrage could either maintain the Bay's salinity or transform it into a freshwater reservoir, utilizing existing, cost-effective, off-the-shelf designs. Models like the Dutch North Sea barrage and Singapore's conversion of estuaries to reservoirs provide inspiration for potential Bay developments.	
DIFR/EIS-E-004	2	Public Commenter	The Millbrae and Burlingame Shoreline Area Protection and Enhancement Project is a proposed project by OneShoreline to protect natural and built areas along the Bay shoreline south of San Francisco International Airport from coastal flooding and sea level rise, while enhancing recreational and habitat values. The project aims to promote healthy and sustainable ecosystems near the Bay shoreline. It proposes a tidal lagoon with habitat features and a pedestrian trail, extending approximately 2.65 miles from the southernmost coastal SFO location to the southeast corner of the shoreline of Burlingame. The Environmental Impact Report will evaluate potential environmental impacts and propose mitigation measures.	See Master Responses #3 and #10

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DIFR/EIS-E-015	1	Public Commenter	Due to the nature of our business, it is critical that throughout any construction periods, timely 24/7 access to our facility must be fully maintained, by both land and water.	The USACE acknowledges the importance of access for the Bar Pilots and need for access. See Master Response #9
DIFR/EIS-E-023	7	Public Commenter	Further analysis and more systematic evaluation of the magnitude and significance of key uncertainties is needed. Among the most significant of these is the amount and timing of sea level rise (using alternative forecasts such as those identified in the DEIS). Additional sensitivity analyses should be conducted to consider alternative scenarios, mitigation options, etc. that, while hypothetical, are realistic. Further analysis of the effects of such key uncertainties on plan design, construction, and operation is warranted.	See Master Response #1
DIFR/EIS-E-035	2	Public Commenter	The club's open water sports occur on the Bay, along the entire city front, and the plan's proposed changes include raising the seawall as well as introducing natural "green infrastructure" forms of flood protection, like wetlands. Our ask is that modifications to the city's waterfront anticipate and accommodate water access for human powered recreation—places where swimmers and rowers can safely enter and exit.	See Master Response #8

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DIFR/EIS-E-035	3	Public Commenter	The plan anticipates a reworking of the city's water infrastructure – including storm water and sewage outflows to the bay. Our ask is that the plan mitigate the impacts on human powered open water recreation, this includes both the water treatment and locations of outflows into the Bay. Water quality should be maintained to sustain the Bay's native flora and fauna, as well as accommodate safe human swimming. Between the two historic clubs, there are more than 4,000 members, and the open water recreation community is much larger.	See Master Response #8
DIFR/EIS-E-035	4	Public Commenter	Hydrology –tidal flows and currents – is also important to water recreation. Our ask is that the introduction of new landforms or sea walls address hydrology in ways that support the continuation of our historic water-based recreation. (For example, we want to avoid conditions where water stagnates or that encourage red algae blooms or other hazards to swimmers.)	See Master Response #8 Sub-Appendix D.1 discloses potential impacts to coastal hydrology as a result of the project and acknowledges detailed hydrodynamic modelling may be needed in PED.

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DIFR/EIS-E-041	1	Public Commenter	Mission Creek Harbor supports the Draft Plan's emphasis on defending and preserving maritime resources and maintaining housing in place. These concepts are crucial for the harbor's future planning and design process. The harbor believes in the importance of maintaining access and opportunities for the public to engage with the San Francisco Bay. The Harbor supports the Draft Plan's emphasis on keeping housing in place due to the need for additional housing and significant investment in residential units in Mission Bay over the last 20 years. The Harbor also considers preserving maritime resources and promoting public access to the waterfront. The harbor lauds the Port and the Army Corps of Engineers for identifying and prioritizing these defining characteristics of life in the San Francisco Bay Area.	The USACE appreciates the expressed support of the project.

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DIFR/EIS-E-047	1	Erik Buehmann (Bay Conservation and Development Commission)	BCDC staff want to acknowledge and applaud the USACE and its partner, the Port of San Francisco, on this monumental study to address sea level rise, flooding, and other climate change hazards along the San Francisco Waterfront. The San Francisco Waterfront is a vitally important regional resource for port and related maritime facilities, public access, open space, recreational sites, and water-oriented commercial recreation. We commend the Study's innovative proposed "adaptation pathway" approach to identifying resilience strategies that will be monitored and adapted over time. This approach will provide the flexibility necessary to protect this important resource. The study is a groundbreaking effort San Francisco Bay and balances the urgent need to adapt to the risks posed by climate change and natural hazards with the everyday needs of San Franciscans and Bay Area residents who rely on this important waterfront.	The USACE appreciates the expressed support of the project.

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DIFR/EIS-E-047	4	Erik Buehmann (Bay Conservation and Development Commission)	There are a large number of existing BCDC permits within the Study area. These existing BCDC permits, in addition to often authorizing ongoing work or projects in construction, may include special conditions that include requirements, including but not limited to, providing and maintaining public access, monitoring the impact of projects on the Bay, etc. The Projects identified pursuant to the Study may require, in addition to required state permits and federal consistency review, additional amendments to existing BCDC permits and may impact existing requirements. In particular, potential coastal storm and flood risk management alternatives would impacts have on existing public access or other conditions required in these permits.	The USACE is committed to working with the BCDC regarding permitting under the Coastal Zone Management Act during PED. A full consistency determination would be completed during PED.

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DIFR/EIS-E-047	10	Erik Buehmann (Bay Conservation and Development Commission)	...BCDC staff believes the Study is extremely comprehensive in describing possible planning scenarios. The adaptation pathway approach to planning for future actions ("Second Action" and beyond) is generally consistent with BCDC's recommended approach to adaptation planning, as well as being generally consistent with the Climate Change policies in the San Francisco Bay Plan. However, while Section 3.3.1.4 of the Study mentions the updated OPC Guidance, the new draft updated OPC Guidance should be reflected in Figure 3-4 and Table 3-1 as well....It is important to ensure that any projects with fill in the Bay, or incorporating public access, using these early stage alternatives are consistent with BCDC's Climate Change policies. Flood proofing and "no action" may generally meet the requirements for resilience to mid-century of sea level rise projections, but there may be individual projects that require additional measures to ensure resilience and consistency with the Bay Plan. The standards of the Bay Plan should be considered when developing alternatives for specific areas of the waterfront.	The USACE is responsible for managing the project consistent with federal laws and commits to working with the BCDC regarding permitting for the Recommended Plan during PED. A full consistency determination would be completed during PED.
DIFR/EIS-E-048	2	Public Commenter	SF Heritage supports the Draft Plan's inclusion of a strong coastal defense for the Ferry Building and Agricultural Building, and encourages the Port of San Francisco's proposal to raise these structures. They also suggest a detailed plan for their	The USACE appreciates the expressed support of the project. Detailed plans for preservation and treatment of historic structures will be developed during PED. The demolition of two historic structures

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			preservation and treatment, as the current TSP calls for the demolition of two historic structures in Pier 70 shipyard.	in Pier 70 has been removed from the Recommended Plan.
DIFR/EIS-E-050	1	Diane Matsuda (San Francisco Historic Preservation Committee)	The Coastal Flood Study is limited in scope and does not address the sea level rise at Aquatic Park, the Presidio or the Marina. Also, the Historic Preservation Commission is questioning how resilience is being addressed in other coastal areas beyond the Port's waterfront. The HPC would like to understand the interrelationship between the different efforts and would request that a full presentation on all city, state and federal resilience efforts be arranged at a future informational hearing to ensure that there is a holistic plan to address sea level rise particularly as it affects historic properties.	See Master Response #10 The USACE Planning Process considers other projects within the study area but does not address those beyond the scope of the project area. The City and County of San Francisco may choose to develop an adaptation plan to address areas beyond the scope of this study.
DIFR/EIS-E-053	4	City of San Francisco	In the "N Judah" section, there is reference to the portal at Howard St and Embarcadero and also indicates it is a BART/MUNI asset, but the "Folsom Portal" is not a BART asset	Revised Section 2.2.3.1, <i>San Francisco Municipal Railway</i> in annex D.1.4, <i>Transportation</i>, to read: N-Judah is a local light rail service that operates from 6 am to 12 am (midnight) on weekdays with 10-minute headways during the am and pm peak periods. This route operates along King Street and the Embarcadero through South Beach and Ferry Building subareas before going underground at the Muni Tunnel Portal at Embarcadero and Folsom Street. The service continues below Market Street with stops at Embarcadero Station.

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DIFR/EIS-E-053	17	City of San Francisco	The "Cumulative Impacts" section only mentions Bayview / Hunters Point but modifications to the Muni system could impact other neighborhoods.	Section 2.3 of annex D.1.4, <i>Transportation</i> , revised to state that indirect impacts may occur to neighborhoods beyond the immediate construction area from changes to transit and transportation systems.
DIFR/EIS-E-053	28	City of San Francisco	Recommend adding in more specifics for timing for when the detailed construction assessments are conducted in AMM-AQ-2. Right now, the measure states, "as the design progresses, and after detailed construction assessments are conducted and project-specific impacts are identified...."	Detailed assessments may be conducted at various points in the design phase, during pre-construction, and during the early stages of construction.
DIFR/EIS-E-053	36	City of San Francisco	MM AQ-1: recommend making this more general without reference to the air district and simply stating that emissions would be offset. There should also be a prioritization where emissions are offset as close to the emissions source as practicable, and then if impracticable, within the City with a preference within overburdened communities (as shown either by the air pollutant exposure zone or Calenviroscreen, or other similar data), and finally within the air basin.	See Response to Submission # DIFR/EIS-E-053, Comment #24
DIFR/EIS-E-053	38	City of San Francisco	AMM-NOI-2 Vibration Control: This measure only addresses vibration mitigation from pile driving activities. However, other equipment, like bulldozers used for demolition could generate high levels of vibration that if near other buildings could exceed the building damage criteria. Recommend adding that a vibration analysis be conducted and based on that analysis if there is the potential to have building damage or	AMM-NOI-2 includes a measure to evaluate potential for damage to individual buildings from groundborne vibration based on criteria in Table D.1.2-2 of annex D.1.2. Furthermore, the minimization measures describe that vibration monitoring would be conducted for construction and demolition activities. The measures stipulate a distance for which

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			interfere with vibration sensitive equipment, then the measures listed in the mitigation be applied to that activity	vibration effects or notification of pile-driving would be applied but does not exclude notifications or analyses for other vibration generating activities.
DIFR/EIS-E-053	40	City of San Francisco	Construction related mitigation measures should specify notifying persons adjacent to construction activities of the duration of construction, mitigation imposed, persons to call for questions/complaints, etc. Notices should be multilingual	Including construction duration and points of contact for complaints are standard for USACE project implementation. The USACE will collaborate with the Non-Federal Sponsor to determine language access needs and offer translation assistance for construction notices where necessary and practicable during PED.
DIFR/EIS-E-053	41	City of San Francisco	Unclear the extent to which environmental effects associated with the disruption or relocation of utilities has been considered in the environmental analysis for other topics such as transportation, air quality, noise, archeological resources, etc. These activities could also require imposition of mitigation measures.	The environmental analysis evaluates impacts anticipated from the project by resource. Potential impact to utility infrastructure is described in Section 4 of the final IFR/EIS and sub-appendix D.1, Section 4.4.1.
DIFR/EIS-E-053	42	City of San Francisco	AMM-TR-1 and similar minimization measures that require multiple agencies to participate: it is unclear the extent to which these agencies have reviewed the measures and committed to working with the USACE and PORT to implement the measures. Consider agreements with agencies to facilitate their participation.	See Master Response #9

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DIFR/EIS-E-053	44	City of San Francisco	It appears that the EIS mitigation and minimization measures for impacts to special status species defers to regulatory processes. Such measures, even if amended by regulatory agencies, should be disclosed.	Coordination with Federal agencies for protection of special status species has occurred throughout the study process. The USACE will adhere to any conservation measures agreed upon with agencies as a part of that coordination process. Final consultation documents are available for applicable laws in Appendix D that provide measures to minimize impacts to protected species.
DIFR/EIS-E-053	46	City of San Francisco	Section (text is include in both Plan and Appendix D-1) states that 14 archeological sites identified in IC record search, all historic-period. This doesn't match the information in Appendix D-3 NHPA Section 106, which lists additional resources include Native American resources. Confirm record search information. Suggesting adding into this overview list of types of Native American resources that could be discovered within study area.	See Master Response #6 USACE has reviewed and updated the report for consistency between appendices and the final IFR/EIS.
DIFR/EIS-E-053	64	City of San Francisco	Should this be "Estuary Restoration Act of 1968"?	Section 1.6 of annex D.1.8 has been revised to "Estuary Restoration Act of 2000".

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DIFR/EIS-E-054	2	Public Commenter	California Suaeda is an endangered plant species that is thriving at Pier 94 and Heron's Head Park. This should be documented in Appendix D-1 page 3-38. This along with other shoreline plants help cleanse the water, protect the shoreline from erosion, while providing habitat. This plant became endangered due to habitat loss, trampling, and exotic plant species. The steep levees being proposed in the plan as well as wave erosion and sea level rise are serious threats to California Suaeda. Yet there are opportunities to use this plant as part of the native shoreline buffer at Crane Cove Park, Warm WaterCove, and further protection at Heron's Head Park and Pier 94 and up westward into Islais Creek.	Impacts to threatened and endangered species are disclosed in sub-appendix D.1, Section 4.2.3. A biological assessment was coordinated with the U.S. Fish and Wildlife Service (USFWS) for potential effects to protected species. The USFWS's concurrence with the USACE's effects determinations and conservation measures to minimize adverse effects to protected species can be found in annex D.6.3 of the final IFR/EIS.
DIFR/EIS-E-058	5	Public Commenter	The Katrina disaster was largely due to New Orleans' failure to maintain robust natural wetland ecosystems, which would have reduced the hurricane's flooding impacts. The plan, while recommending Engineering With Nature and Natural and Nature Based Features strategies, lacks a comprehensive plan for restoring and linking wetlands as a unified wildlife habitat ecosystem, inland creeks, and watersheds, and gaining more widespread protections against Katrina-like events. A greater vision for comprehensive wetlands restoration is needed to protect against extreme flood events.	See Master Response #4 The authorization and purpose of this study was to address coastal storm risk management solutions for the study area. Natural and Nature Based features were incorporated to the extent applicable to meet the authorization and purpose of the study.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-011	2	Public Commenter	Within SF Port's jurisdiction I appreciate that strategies to mitigate SLR aim to protect or preserve all existing assets (including those inland from Port properties), but I worry that mitigation funds will be finite and should be allocated to protect what is considered to have the most value for the most persons in the future--establish a list of priorities and apply an actuarial-type of evaluation.	The USACE developed a conceptual compensatory mitigation plan to offset the project's unavoidable impacts to significant resources. The costs associated with that are estimated based on the mitigation approach. The compensatory mitigation plan would be re-evaluated during PED as project-level designs advance and evaluations of overall impacts are refined to meet permitting requirements for Federal environmental laws.
DIFR/EIS-CC-033	1	Public Commenter	A viable option for the Bay Area SLR is to install an operable Dam across the golden gate. This can be installed for less than half the cost to build a berm along the day shore. The operable dam would be open during low and mid tides to allow ships and fish to enter the Bay.	See Response to Submission # DIFR/EIS-E-001, Comment #1
DIFR/EIS-E-042	4	Francisco Dóñez (US Environmental Protection Agency)	Preparation of an early coordination plan with all potentially impacted transportation agencies to avoid or minimize disruptions to services.	See Master Responses #3 and #9
DIFR/EIS-E-002	2	Public Commenter	1) The San Francisco Waterfront Flood Study should promote "soft" approaches, such as open spaces, instead of "hard" approaches, such as sea walls, where feasible. Good examples are shown in Figures 5-11, 5-14, and 5-19 of the report. 2) Protected habitat should be delineated for the California red-legged frog. A monitoring program should be implemented to keep track of long-term population trends.	See Master Response #4 Delineating protected habitat and evaluating population trends of Endangered Species Act (ESA) listed species is not within the jurisdiction of the USACE. Potential impacts of the project alternatives to ESA-listed species are evaluated in sub-appendices D.1 and D.6.

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DIFR/EIS-E-005	1	Public Commenter	A single alternative that benefits the entire bay should be considered and could include the construction of large sea-gates. These sliding gates could be constructed in two parallel rows consisting of 27 pairs of 120 ft wide gates. This design would also include guard pylons and an anchored stem wall. This alternative would provide protection from SLR, generate electricity, restore and sustain the ecological balance of the SF bay and the Sacramento river, permanently reduce the chances of flooding, include fish ladder systems, and be very beneficial in preventing SLR.	See Response to Submission # DIFR/EIS-E-001, Comment #1
DIFR/EIS-E-005	2	Public Commenter	A coalition of federal and state agencies, including FEMA, Army Corp of Engineers, CA Coastal Commission, and Association of Bay Area Governments, should be formed to develop a comprehensive multi-stage plan for a single point SLR Control System, which will function for multiple decades and become a perennial operation and maintenance program.	See Master Response #3 Section 2 and 3 of Appendix H describes agency and city coordination throughout this study, as well as Section 8 in the final IFR/EIS. A Bay-Wide SLR Control System is beyond the scope of this study.
DIFR/EIS-E-010	2	Public Commenter	This is the link to this project. https://www.scapestudio.com/projects/fidi-master-plan/ Can we try to accommodate their solutions? Can we project with the new protection elements into the Bay and avoid rising the existing buildings?	The USACE considered an array of alternatives, as described in the final IFR/EIS and Appendix A. The Recommended Plan was selected to optimize multiple benefits based on the detailed comprehensive benefits analysis.

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DIFR/EIS-E-012	1	Public Commenter	The Real Estate appendix to the draft plan indicates that there is a berm planned the length of Terry Francois Blvd. I advised the Army Corp rep that the plan should address that the only two ramps from the Bay to shore are on that street. One of the ramps is part of the Mariposa Hunters Point Yacht Club and the other ramp is City operated and close to the MHPYC. These ramps/docks are used by the public as well as the Navy, Army Corps, Coast Guard, police and sheriffs vessels, Fish and Wildlife, etc.. Since these are the only two ramps in the City and County of San Francisco that allow direct access to the Bay they will be critical to the delivery of materials for the mitigation projects as well as the continued use by the above referenced.	See Master Response #9
DIFR/EIS-E-015	2	Public Commenter	Our pilot boats operate across a large geographic area, from 11 miles west of the Golden Gate Bridge, to the Central Bay and down to Hunters Point. As a result, our pilot station location is somewhat geographically bound. Either a temporary or permanent relocation would have a significant impact on our business.	Consideration would be given to disruption to the public, businesses, and organizations during construction of the project. Detailed planning, evaluation of impacts, and minimization measures would be completed during PED as designs are refined. Efforts would be made to minimize disruption to Port tenants, businesses, and operations to the greatest extent practicable. Coordination with stakeholders would occur during PED to address these concerns to the greatest extent practicable.

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DIFR/EIS-E-015	3	Public Commenter	We would encourage infrastructure improvements to Pier 9 include not only floodproofing; but also, seismic upgrades, as well as forward looking improvements such as sufficient utility services to power next generation equipment and technologies.	See Master Response #10 This suggestion is outside of the scope of the study. Additional details for the purpose and need and scope for the study can be found in the final IFR/EIS sections 1.7 and 1.10, respectively.
DIFR/EIS-E-016	1	Public Commenter	Illinois street is an important priority for protected bike infrastructure within the study area. To support this priority, the Illinois St bridge over Islais Creek should be completely renovated (instead of just integrating closure structures on the existing bridge) to add capacity for an additional 10+ foot bikeway on the east side. Or an additional bike bridge should be added just to the east of that bridge, linking to the protected bikeway. This should be an early action, ideally completed prior to the planned closure of the 3rd street bridge, which will divert even more trucks to Illinois St. Advantages of adding a separate bike bridge include a quicker planning and build time, could occur concurrently with the 3rd Street bridge closure, and it would not require closure of the existing bridge.	See Master Response #9

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DIFR/EIS-E-016	4	Public Commenter	Cargo Way is an overbuilt roadway that is prone to flooding. The north side of Cargo Way should be closed and naturalized to provide drainage and absorption of stormwater and flooding. That north side of the street should be preserved for bike and pedestrian use, along with drainage improvements, while the south side of the street (with the existing bike path removed) can handle all the southeast and northwest vehicle traffic.	The Recommended Plan includes several interventions in the vicinity of Cargo Way to improve flood resilience of the roadway. A combination of berms, engineering with nature solutions, rebuilt wharves, and seismic ground improvements are all proposed for the areas of the waterfront immediately north of Cargo Way. The Recommended Plan would retain existing road, pedestrian, and bicycle access.
DIFR/EIS-E-023	1	Public Commenter	The Draft Plan And DEIS Are Too High-Level – Future Focused Federal-Level Environmental Review Is Required. When engineering designs are closer to completion, we ask that the USACE commit now, as a part of this DEIS, to perform future focused federal-level environmental review(s) to evaluate the impacts for each reach of the proposed project or major project area prior to their implementation.	The USACE evaluated environmental impacts using the best available information at the time of the study to comply with the National Environmental Policy Act (NEPA). As project design advances and is refined in PED, the USACE would evaluate potential effects and determine whether supplemental NEPA documentation is required.
DIFR/EIS-E-023	2	Public Commenter	A more detailed description and fuller assessment of the impacts of the Draft Plan and TSP on historic resources should be included in the DEIS sufficient to assess the threat to the integrity of each individual resource, together with analysis of whether the Embarcadero National Register Historic District will remain eligible for listing following implementation of the project. In this regard, we urge the USACE to include the following: Ferry Building and Ag Building, Historic Bulkheads, Historic Finger Piers, Historic Seawall, Reach 1 Modification, Pier 70	See Master Response #6 Analyses will be completed during PED and follow the steps outlined in the Programmatic Agreement (PA) for frequent consultation with consulting parties. All known resources such as those listed would be presented in the Research Design for Cultural Resources Investigations, evaluated for adverse effects (once exact actions are known for the project, as designs are refined), and

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			Historic Resources, Federal Tax Act Projects for Public-Private Partnerships.	mitigation plans prepared in consultation with the State Historic Preservation Office (SHPO) and Consulting Parties.
DIFR/EIS-E-023	3	Public Commenter	The DEIR does not provide sufficient detail and meaningful analysis of project impacts, especially during construction. More details and analyses are needed to fully assess the project's environmental impacts and their significance. Among other things, the DEIS needs more systematic uncertainty analysis, definition and analysis of alternative mitigation and implementation options (even if such alternatives are hypothetical, so long as they are realistic), along with more complete identification and analysis of mitigation measures.	See Master Response #6 Much of this will be taken into consideration during Section 106 investigations, as per the PA (Annex D.3.1). The structures and historic district are included in the Area of Potential Effects (APE).
DIFR/EIS-E-023	4	Public Commenter	Quantification and evaluation of the multiple-year impacts of Reach 2 construction on adjacent neighborhoods are needed, including identification and analysis of possible mitigation strategies (e.g., vibratory pile driving). The DEIS must adequately analyze such environmental effects as: • Traffic redirection into adjacent neighborhoods during Embarcadero roadway realignment construction that will likely take years. During that time, a major volume of traffic (commuter, tourist, and otherwise) will have to be diverted into other routes. Such redirection will almost certainly cause significant disruption in adjacent neighborhoods. • Noise from pile driving equipment and other construction activities. • Air quality impacts from construction-	See Master Response #6 Traffic redirection, noise, vibration, air pollution, and viewshed, are impacts considered during cultural resource investigations and impacts analysis. Telegraph Hill is a Historic District and impacts would be evaluated through Section 106, in addition to any others.

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			related criteria pollutant and air toxic emissions (e.g., diesel exhaust particulate matter), particularly from equipment used in pile driving and construction of the realigned Embarcadero roadway. Relevant air concentrations and cancer and noncancer health risks should be quantified, especially for the most impacted persons in adjacent neighborhoods. • Impact of vibration on nearby buildings and on Telegraph Hill given its history of rockslides and landslides.	
DIFR/EIS-E-023	5	Public Commenter	The study area and area of potential effects ("APE") should be expanded to include Telegraph Hill and other neighborhoods that would be substantially affected by the impacts listed above. We note that some important impacts (e.g., congestion from traffic diversion during construction) will likely extend outside, perhaps well outside, the Draft Study's current APE.	See Master Response #6 The term "APE" is specific to an area of effect for cultural resources. The potential effects to transportation, noise and vibration, and air quality, from a range of alternatives, were evaluated in the final IFR/EIS. As project design advances and is refined in PED, the USACE would evaluate potential effects and determine whether supplemental NEPA documentation is required. The impacts to historic districts and historic properties include visual, auditory, air quality, vibration, etc. Those impacts will be included in the Section 106 APE, which will be defined in consultation with the SHPO and consulting parties and refined/revised with all parties prior

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				to implementation or construction of any project component.
DIFR/EIS-E-023	6	Public Commenter	Additional more intuitive and user-friendly ways are needed to communicate the Draft Plan and its impacts. The Draft Plan is complex, massive, and will span decades. Decision makers and the public need to be able to anticipate and understand the activities involved in the implementation of the Draft Plan and how they will be experienced by the public, both during construction and after completion.	See Master Response #3
DIFR/EIS-E-023	8	Public Commenter	More detailed analyses focused on Reach 2 are warranted. Reach 2 is among the area most heavily impacted by the TSP, yet sea level rise vulnerability in much of that area (from approximately Broadway northward) is forecast to be among the lowest (e.g., see Figure 3-6, San Francisco Sea Level Vulnerability Zone, p. 3-5, Draft Appendix B.1.1 – Coastal Extreme Water Levels and High Tide Flooding). The DEIS does not consider this disparity enough, nor does it consider and evaluate impacts in sufficient depth.	See Master Response #1 The final IFR/EIS describes the Recommended Plan's first action to address coastal flood risks as an initial implementation of an adaptable approach. Appendix G describes long-term planning efforts that would have flexibility to develop subsequent actions consistent with future conditions, values, and fiscal constraints.
DIFR/EIS-E-023	9	Public Commenter	Description of how public outreach will be managed over the many years of this project is needed. Public outreach will be essential for communication, consultation, problem identification and solutions, particularly during construction. This outreach is even more complex and	See Master Response #3

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			essential because it will need to be ongoing over many years. A community communication and coordination group should be established, comprised of stakeholders, including the USACE, the Port, contractor representatives, police and fire representatives, nearby residents and businesses, community groups, and other interested parties. While primarily needed during construction, earlier input during project-level design could be also be helpful.	
DIFR/EIS-E-023	10	Public Commenter	Proposed Section 106 Programmatic Agreement Needs More Detail. As a consulting party to the development and implementation of the PA, we offer the following preliminary comments on the draft PA and look forward to working with the USACE and the other consulting parties on its development. ACHP's Climate Change Policy Statement encourages public-serving institutions to collaborate on identifying and assessing historic properties, with priority on areas with high climate impacts. The proposed project should identify all known historical resources within the APE, which have been extensively documented. The current draft assumes that historic resources have not been identified, which is inaccurate. An appendix should include a list of resources listed in or eligible for listing in the NRHP and CRHR, along with a map of well-known historic resources in the APE. The NHPA mandates federal agencies to use preservation professionals for projects involving historic properties. We urge USACE to include preservation	See Master Response #6 USACE concurs. The PA has been revised and addresses these concerns.

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			professionals in the PA, including evaluations, design processes, and PHMP development for mitigation or avoidance of impacts. The USACE should include periodic consultation, monitoring, and reporting with consulting parties in the Preconstruction Engineering and Design Phase and the preparation of the PHMP and Treatment Plan. The USACE should include climate change-related guidance for acceptable treatments of historic resources in the APE, as stated in the Advisory Council on Historic Preservation's June 16, 2023, policy statement. The consulting parties' participation in preparing the PHMP and Treatment Plan has resulted in a short deadline of 30 days, requiring a minimum of 60 days for response. The draft PA, which is set to remain in effect for 15 years, is questioned about its sufficiency considering the estimated completion time and anticipated construction activities.	
DIFR/EIS-E-029	1	Carla Short (San Francisco Department of Public Works)	We respectfully request the US Army Corps of Engineers incorporate shoreline access for fireground operations on the creek side of the properties along Islais Creek in the study. Per Section 5.1.3 of the Report, the Tentatively Selected Plan in Reach 4 (Islais Creek) proposes to elevate the creek shorelines using a combination of shoreline berms and floodwalls. These adaptation measures should provide adequate width and load carrying capacity for SFFD fire trucks to traverse the entire	See Master Response #3 As project designs are refined during PED, the USACE would coordinate with local agencies, the non-federal sponsor, and stakeholders to consider criteria for incorporation into flood risk features. Access for emergency services would remain available during and after project completion.

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			length of the improved shoreline at Islais Creek.	
DIFR/EIS-E-031	1	Public Commenter	The Wharf J9 Resilience Project is a potential "taking" under the 5th Amendment to the Constitution, potentially leading to legal action. The project will remove a hoist on the edge of Wharf J9, which is our property and essential to our business operations. The Port of San Francisco has stated that there is no known remedy or accommodation for temporary use of the crane during construction. There may be legal claims for compensation. The project also appears to encroach on Wharf J10, which we have legal claim to under a ruling by the Court of Appeals of California, First Appellate District, Division Four on January 9, 2004. This is a legal matter that must be resolved.	The study is not proposing action at or in the vicinity of Wharf J9 and/or Wharf J10. The study is not considering any specific and definitive future action at or in the vicinity of this location. In conclusion, the Recommend Plan would not physically affect private property rights that may exist or otherwise raise a takings issue in this location.
DIFR/EIS-E-031	2	Public Commenter	The Initial Wharf Concepts Screening Evaluation shows a figure illustrating the project's area and surrounding water, including ongoing oil seepage. The extent of the seepage appears truncated at the Wharf J9 project area, but it is believed to continue into the Wharf J9 area. This is a serious pollution issue that must be addressed before any work begins on the	The draft IFR/EIS does not include an Initial Wharf Concepts Screening Evaluation and has no figures or diagrams of oil seepage related to initial wharf concepts screening evaluation. The actions identified in the draft IFR/EIS adequately address the Plan's potentially hazardous waste impacts. As

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			project. As we are directly affected by Reach 1, we have no further comments at this time.	disclosed in the final IFR/EIS and annex D.1.6, potential hazardous, toxic, and radioactive waste (HTRW) sites have been identified with the best available information. HTRW would be avoided through remediation, minimization, and/or mitigation per USACE policy. The USACE policy requires the local non-federal sponsor, prior to construction contracting, to obtain regulatory agency approval for remediation actions as prescribed by federal law. Annex D.1.6 provides an overview of all the HTRW regulatory requirements addressing contamination and hazardous materials that federal and state regulating agencies and the project sponsor must meet prior to and during construction and operation.
DIFR/EIS-E-034	1	Xavier Fernandez (San Francisco Regional Water Quality Control Board)	For clarity and to streamline the Project's next steps, please note that the Alternatives Evaluation in the EIS, Appendix A, Plan Formulation, and Draft 404(b)(1) Analysis, Appendix D-4-1, do not satisfy the requirements, outlined above, specific to the Procedures and Guidelines. Opportunities to avoid and further minimize the Project's impacts, such as developing and incorporating the nature-based design features (nature based features) outlined in the "Independent Measures" into the Project, were not fully considered. Incorporating nature-based features into the Project would potentially minimizes impacts by producing a new or modified	The final IFR/EIS analyzes the potential impacts from a range of alternatives based on the best available information at this time. The Recommended Plan has incorporated Natural and Nature Based Feature to the extent practicable to meet the purpose and need of the project. The 404(b)(1) analysis followed the USACE's standard approach for evaluating the Recommend Plan's impacts to navigable waters from placement of fill material. As indicated in the compensatory

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			environmental state of higher ecological value than the existing condition (see Section 230.75(d) of Appendix A to the Procedures and 40 CFR 230.75(d)), which would help satisfy the requirements of both the Dredge and Fill Procedures and the Guidelines. Accounting for the beneficial impacts from nature-based features incorporated into the Project during the Alternatives Analysis would also reduce the amount of compensatory mitigation needed to offset adverse fill impacts resulting from the Project. Lastly, the alternatives analysis must further analyze both the direct and indirect effects of structural components and include them in the accounting of the beneficial and adverse impacts in the Alternatives Analysis. Again, we understand some structural components may be necessary due to site-specific constraints, but we are concerned that the indirect effects of components, such as tide gates and sheet pile walls, are not fully accounted for in the Alternatives Analysis.	mitigation (Appendix K), the beneficial impacts and potential offsets of natural and nature-based features, were not considered when developing the conceptual mitigation plan. As the project progresses in PED and detailed designs are available, the 404(b)(1) analysis and compensatory mitigation plan would be refined accordingly.
DIFR/EIS-E-034	2	Xavier Fernandez (San Francisco Regional Water Quality Control Board)	We highlight the recommendations made throughout the EIS to further optimize the TSP with natural and nature-based design features and the importance of meeting the Procedures requirements by evaluating the practicability of nature-based features. To adequately assess these alternatives, the long-term effect must be better evaluated to assess whether the Guidelines and Procedures have been met. We suggest modeling the habitat conversion associated with implementing these	As stated throughout the final IFR/EIS, additional modelling efforts would be addressed during PED. The USACE collaborated with experts and the non-federal sponsor to identify which natural and nature-based features were most relevant to meet the purpose and need of the project and where those features were most applicable. Section 1 of Appendix H describes coordination and collaboration efforts, including for

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			alternatives to better understand the long-term ramifications of the alternatives.	development of natural features, that occurred during the study.
DIFR/EIS-E-034	3	Xavier Fernandez (San Francisco Regional Water Quality Control Board)	As noted in our NOI Comment letter, as part of the Corps' 404(b)(1) Alternatives Analysis, we encourage further analysis and consideration of practicable alternatives that incorporate nature-based alternatives while also reducing or eliminating structural components. We are also required to analyze alternatives that first avoid and minimize impacts to waters of the State. As such, we are fully supportive of design components that avoid impacts, such as planned retreat, and ones that minimize impacts, such as living seawalls. As indicated above, under both the State Dredge and Fill Procedures and Section 404(b)(1) Guidelines, minimization measures include actions that minimize adverse effects on plant and animal populations by producing "a new or modified environmental state of higher ecological value by displacement of some or all of the existing environmental conditions" (Section 230.75(d) of Appendix A of the State Dredge and Fill Procedures and 40 CFR 230.75(d)). Accordingly, replacing the current sea wall along shoreline the San Francisco with a living	See Response to Submission # DIFR/EIS-E-034, Comment #1 The 404(b)(1) analysis describes avoidance and minimization measures and best management practices that would help to reduce and/or limit impacts to aquatic resources. As project design progresses, these mitigation measures would be refined to minimize impacts to the greatest extent practicable. The USACE would continue to coordinate with agencies to attain compliance with all applicable Federal laws. Appendix I describes the alternatives analysis process for inclusion of natural and nature-based features.

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			sea wall would be a minimization measure that should be fully analyzed for practicability. As described above, the process for including this as a minimization measure in the Alternatives Analysis would be to account for both the beneficial and adverse impacts (whether direct or indirect) from the placement of fill associated with the Project's structural components We recommend and support the further development of these nature-based features, as referenced in the EIS. Since the 401 Certification process will require a thorough analysis, in sequence, of avoiding, minimizing, and then compensating the Project's adverse impacts to the extent practicable, we urge you to incorporate the same approach required in the 404(b)(1) Alternatives Analysis for the Final EIS (FEIS).	
DIFR/EIS-E-034	4	Xavier Fernandez (San Francisco Regional Water Quality Control Board)	The Monitoring and Adaptation Plan (MAP) in Appendix G must be further developed to distinguish the monitoring and adaptation needed for nature-based features from the sea level rise triggers that will guide the proposed large-scale additions to Reaches 1, 3, and 4 for the projected 2090 sea level rise. As seemingly the first of its kind, the MAP should not have been based on the principles of adaptive management used for ecosystem restoration projects alone. The MAP should recognize that the proposal to add to the seawall height and raise the ground elevation is not comparable to a restoration project's adaptation strategy or outline. The unique construction, planning, and funding	The USACE acknowledges there are differences between adaptive management for ecosystem restoration and for the monitoring and adaptation necessary to support the two-phase approach of structural measures for this study. Updates to Appendix G reflect monitoring and adaptation plan progress since the draft IFR/EIS, however, the full plan would be developed in PED, along with the establishment of a multi-disciplinary, technical body responsible for monitoring, synthesizing results, and reporting to USACE and Port leadership.

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			constraints that the proposed infrastructure adaptation measures face should be outlined in detail in the MAP, and the corresponding adaptation triggers for “adaptation actions” must take those constraints into consideration to change the proposed actions to tangible solutions with real milestones. We recommend further developing these adaptation pathways and constraints in further detail in the FEIS. The adaptation strategies typical for ecosystem restoration projects are more applicable to the nature-based features incorporated in the TSP, and which should be further explored and developed in the FEIS. Accordingly, the MAP should further develop performance criteria, success criteria, and adaptation strategies specific to the nature-based features.	Monitoring for natural and nature-based features would be incorporated into the design process and coordinated through the appropriate resource agencies. Appendix I includes the types of monitoring activities that may be applicable for respective features.

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DIFR/EIS-E-034	5	Xavier Fernandez (San Francisco Regional Water Quality Control Board)	Before we can accept a mitigation proposal, we are required to analyze alternatives that first avoid and minimize impacts to waters of the State. In concept, there are components in the mitigation approach proposed in the Mitigation Plan, Appendix K, that may satisfy our Certification requirements. However, any proposed mitigation must consider, and distinguish between, both the mitigation type in relation to the impact type (i.e., in-kind or out-of-kind mitigation) as well as the temporal loss of functions, values, and acreage that will occur from the time that the Project impacts occur to when any mitigation is fully established. Out-of-kind mitigation requires a larger amount of mitigation than in-kind mitigation. Similarly, the mitigation amount required is larger if the time gap between when the Project impacts first occur to when the mitigation project is fully established. In that context, the mitigation proposed in the Mitigation Plan is insufficient and should be further revised to factor these considerations into the mitigation types and proposed amount.	The compensatory mitigation plan developed for the study (Appendix K) is conceptual at this stage given the currently available information. As the project design progresses in PED, the mitigation plan would be refined to better reflect a strategy to compensates for the unavoidable impacts to significant resources. The USACE commits to updating the project's mitigation plan consistent with Federal law and USACE policy. The USACE would coordinate with respective resource agencies for this effort.

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DIFR/EIS-E-035	1	Public Commenter	The club is located at the westernmost reach of the plan area and identified in the plan as a historic building in need of flood protection. We ask that the waterfront resilience plan expand westward to include Aquatic Park and its infrastructural pier (a.k.a. Municipal Pier). While not City or Port property, Municipal Pier – an extension of Van Ness Avenue into the Bay -- provides essential protection, not only to the clubs but to other irreplaceable civic assets of San Francisco's heritage namely the WPA-era Maritime Museum, Sea Scouts and the park itself.	See Master Responses #6 and #10
DIFR/EIS-E-036	2	Public Commenter	BCNA members are facing a massive construction project on the Northern Waterfront, which will cause significant disruptions to transportation corridors and noise disturbances. The project will result in massive traffic congestion, disruption to emergency vehicle access, noise from piled-up pillars, air pollution from delivery vehicles and construction equipment, possible structural damage to nearby homes, and reduced property values. The project is expected to perform work at night, which though typical for large infrastructure projects, BCNA members live in the area 24/7, and the lights and noise directly across the Embarcadero could destroy their lives and property value.	The final IFR/EIS includes detailed analyses of potential effects from air quality, noise, and transportation that could result from a range of alternatives. Annexes D.1.1, D.1.2, and D.1.4 provide context for these analyses and a description of anticipated impacts based on the best available data, respectively. Further evaluations may be warranted in the future as project design advances.

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DIFR/EIS-E-036	4	Public Commenter	The Corps is participating in the public comment process for the Waterfront Resiliency Project, implementing a new policy approach that considers social and environmental benefits in addition to traditional economic analysis. This approach aims to provide a model for future large-scale projects and move the Corps from focusing on national economic development to a more comprehensive evaluation of environmental and social costs/benefits. However, there is no written description of this new approach available to community groups. The final plan design may not accurately reflect the necessary measures to mitigate harm to residents. The Port and Corps made the policy decision to leave 13,500 residents in place, but this decision has ramifications throughout the plan. Bayside protections may have been considered more closely, but this may result in longer construction times to protect residents. The draft Plan does not provide a specific analysis of social issues and costs.	Appendix E contains a detailed description of the Other Social Effects analysis, which includes discussions on several social evaluation factors, including health and safety, economic vitality, social connectedness, community identity, and social vulnerability.. Additional potential impacts expected from the range of alternatives are described in sub-appendix D.1 and relevant annexes.
DIFR/EIS-E-036	5	Public Commenter	The Northern Waterfront's housing and livability are under scrutiny due to state mandates requiring increased production. BCNA has supported affordable housing and condominiums, but the massive construction zone could discourage new developments and undermine existing housing. Traffic management is also a concern, as the closure of the Embarcadero commuter route could cause traffic congestion. A thorough transportation plan is needed to maintain	See Master Response #9 The project would result in disruption during construction that will have various effects as disclosed in the final IFR/EIS and appendices. However, as describe in the final IFR/EIS, the functionality of the waterfront would be progressively more impaired over time due to increasing sea level rise without action. The functioning of the waterfront provides substantial

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			property values and prevent a long-term livability nightmare.	recreational, economic, aesthetic, and amenity values that are important to the adjacent neighborhoods including new proposals for housing that may be proposed to fulfill state housing mandated. Thus, while disruption will occur, the long-term viability of the waterfront is essential to the continued desirability of adjacent housing.
DIFR/EIS-E-037	3	Public Commenter	Continuous public access to waterborne transportation via the Bay's regional ferry service to/from the Port in the event of an emergency is essential. MCAC recommends that the Flood Study include as a Plan objective and requirement in future flood projects' construction the need to maintain continuous public access to waterborne transportation via ferries.	Detailed design and construction planning will occur during PED; however, as described in sub-appendix D.1, emergency services would be provided alternative routes during construction to ensure adequate response time and no loss of function. Access to emergency service corridors would be maintained during and post-construction.
DIFR/EIS-E-039	1	Public Commenter	The flood study discusses the design approach for Reach 4, aiming to elevate the shoreline to defend against 1.5 feet of sea level rise. This area, which houses essential infrastructure partners like ready-mix concrete producers, aggregate suppliers, recycling centers, and SF HRC Business Enterprises, is not densely populated but has potential for a defense of 3.5 feet. In a catastrophic flood, the City of San Francisco would be better prepared by having a more robust defense and securing local infrastructure. Heavy equipment and construction materials may be needed, which may not be available from other sources.	Section 5 of the final IFR/EIS provides a description of the measures being proposed in the Recommended Plan. However, the USACE acknowledges subsequent actions may be needed in the future consistent with risks posed from relative sea level change. Appendix G provides descriptions of the long-term efforts that would have flexibility to develop subsequent actions consistent with risk posed in future conditions, values, and fiscal constraints.

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DIFR/EIS-E-040	1	Seamus Murphy (Water Emergency Transportation Authority)	The following locations and facilities within the project area along the San Francisco waterfront are critical to WETA's operation and administration of ferry service. All of these locations are also able to berth vessels and transport people in the event of a regional emergency. - Downtown San Francisco Ferry Terminal. The Downtown SF Ferry Terminal acts as the central hub in WETA's ferry network with service on 6 lines from this terminal to various cities and communities around the Bay Area including Pier 41, Vallejo, Richmond, Oakland, and three terminals in Alameda. Additionally, WETA operates special event service between Downtown SF and Pier 48.5 on game or large event days. - Pier 9. WETA's primary administrative office is located at Pier 9. This location serves as one of the emergency operations centers for WETA staff to oversee, manage, and coordinate water transit activities in the event of an emergency with significant regional impacts. Pier 9 also has the capacity to berth vessels as well as load and unload passengers in an emergency. - Pier 41. Located adjacent to the popular destinations of Fisherman's Wharf and Pier 39, WETA operates weekend service between Downtown SF and Pier 41. - Pier 48.5. This temporary float is located near the Ballpark and Chase Center in the Mission Bay neighborhood, and WETA operates special event service between Downtown SF and Pier 48.5 on game or large event days. In addition to WETA's existing facilities along the San Francisco waterfront, the agency has capital	The final IFR/EIS, Section 2.5.2, outlines critical disaster response infrastructure, including the Ferry Terminal and Pier 41. This section has been revised to include Pier 9 and Pier 48.5

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			expansion plans for a permanent ferry terminal at Mission Bay and a yet to be identified location along the Southern waterfront. Both projects are part of the agency's medium and long-term vision going out to the year 2050.	
DIFR/EIS-E-040	2	Seamus Murphy (Water Emergency Transportation Authority)	WETA is generally supportive of the proposed work and investment outlined in the Draft Plan to defend against up to 3.5 feet of sea level rise—including raising the shoreline and building short walls around piers. WETA also welcomes the upcoming seismic retrofit of Pier 9. Given that prioritizing emergency response is one of the Waterfront Resilience Program's key goals, the Plan ought to highlight the importance of the Downtown SF Ferry Terminal and Pier 9 as both regional transit assets and critical emergency response assets. Mitigation measures to defend against Sea Level Rise at the San Francisco Ferry Building should also not impede the ability for passengers with disabilities to access any of the ferry terminal gates.	See Response to Submission # DIFR/EIS-E-040, Comment #1 Sufficient access for persons with disabilities was considered during project development and would be further considered as design progresses in PED.

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DIFR/EIS-E-040	3	Seamus Murphy (Water Emergency Transportation Authority)	With major work planned for the area around the Downtown SF Ferry Terminal, Mission Bay, and Pier 9 like raising the shoreline and buildings, installing levees and berms, as well as upgrading the seawall, WETA wants to ensure that the potential construction impacts to the ferry system are clearly identified and communicated well in advance to all interested parties. The uninterrupted operation of the ferry terminals along the San Francisco waterfront is of regional importance for both San Francisco and the other communities that WETA serves. WETA also has plans to construct a new Mission Bay terminal and upgrade the Downtown San Francisco terminal with electrification infrastructure in the next few years. The agency needs to come into compliance with new emissions regulations before 2030 and will work diligently with the Port to ensure these projects proceed without interruption or delay. Additionally, WETA seeks to maintain unimpeded access to its administrative facilities on Pier 9 during construction to continue carrying out its State-mandated function of providing water transit and emergency response services for the Bay Area. WETA expects to work collaboratively with the Port to provide ferry customers, stakeholders, and the public with sufficient notice of potential construction impacts and construction mitigation measures.	The final IFR/EIS, Section 1.9 Planning Objectives, summarizes the many planning objectives for the project. As noted in this section, one objective is to minimize disruption to maritime facilities and functions. The final IFR/EIS concludes that the construction of some elements of the project could disrupt access to existing ferry services; however, as noted in the project construction traffic management plan, the USACE is proposing AMM-TR-5 aimed at maintaining access or providing temporary locations to docks and piers used for the operation of public ferries. As noted in Appendix H Public Involvement, Section 3.2, the USACE is committed to continuing to work with City agencies to refine the project to understand their comments and concerns during PED. Detailed design and construction planning will occur during PED.

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DIFR/EIS-E-041	3	Public Commenter	Mission Creek Harbor is focusing on maintaining navigability within the harbor as the northside berm design develops. The Draft Plan outlines the need for flood defenses to protect the surrounding area from flooding due to rising tides. Boats in Mission Creek rely on the north side of the creek for navigation, accessing the Bay, and docking within the harbor. However, the proposed berm for the north side of Mission Creek has not been designed. The goal is to "defend and preserve historic and maritime resources," and planners must ensure that maritime traffic within Mission Creek is not negatively impacted by a significant reduction in the width of Mission Creek due to the selected location of the northside bank berm.	The levees in the final IFR/EIS were conceptually designed for evaluation in the study. Further design of project features would occur during PED. The levees currently proposed at Mission Creek do not impede into the waterway, thus, no narrowing of the creek is expected with construction.
DIFR/EIS-E-042	1	Francisco Dóñez (US Environmental Protection Agency)	Refinement of first flood control actions in the tentatively selected plan to a level of design that demonstrates how the suite of components would minimize air and water quality impacts sufficiently to meet air and water quality standards, or mitigation needed to reduce the impacts to less than significant;	Annex D.1.1 discloses potential impacts expected to air quality based on the best available information available at the time of the study. Section 2.3.4 in annex D.1.1 provides measures to reduce air quality impacts resulting from construction of the project's features. Potential impacts on water quality, are discussed in sub-appendix D.1 and further in annex D.4.1. The sub-appendix and annexes provides an array of best management practices aimed at avoiding and minimizing adverse impacts on air and water quality during construction of the project features to the greatest extent practicable. USACE would pursue compensatory mitigation for

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				unavoidable impacts in compliance policy and Federal laws.
DIFR/EIS-E-042	2	Francisco Dóñez (US Environmental Protection Agency)	Incorporation of economic, social and environmental considerations into any statement of purpose and need, to align with national policies;	The study incorporates economic, social, and environmental considerations through analyses in the Regional Economic Development (RED), Other Social Effects (OSE), and Environmental Quality (EQ) accounts. Refer to Appendix E for RED and OSE documentation and Appendix D for EQ documentation.
DIFR/EIS-E-044	1	Public Commenter	The technical challenges and complexity of the Reach 2 approach, which involves raising buildings along the Reach, require detailed technical feasibility studies and analysis of costs and risks. These studies should consider the costs of repairing damage, modifications due to differential grades, and the opportunity costs of closing buildings and surrounding roads for several years. The risk analysis should consider physical risks to historic resources, such as damage due to differential movement or catastrophic loss. Incremental solutions should also be considered, as they are likely to be less expensive and less disruptive to businesses, residents, commuters, and transit along the waterfront. The Corps and Port should engage in more detailed feasibility studies and consider alternative, incremental approaches instead of the ambitious approach proposed in the Draft Plan. The Draft Plan for the Ferry Building in	See Master Response #6 The final IFR/EIS includes a comprehensive evaluation of technical feasibility, cost-risk tradeoffs, and stakeholder impacts for the entire study area using the best available information. Following the USACE plan formulation process, a range of measures and alternatives were evaluated to meet the project purpose and need as described in the final IFR/EIS and further detailed in Appendix A. Appendix G of the final IFR/EIS describes an adaptive management approach to flood risk measures that considers subsequent actions which could occur based on risks posed under future conditions. The USACE has coordinated extensively with the non-federal

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			San Francisco acknowledges its unique role as a disaster response area, office space, and market. However, the proposed Alternative for Reach 2 is not responsive to the site's complexities, including the BART tunnel and modifications over the years. A more detailed technical feasibility study would help identify incremental or interim solutions to mitigate flood and seismic risks. The Ferry Building is unique among buildings along the bayside waterfront, supported by over 5,000 Douglas fir piles. While mitigating risks is important, it is impossible to weigh the risks against the cost of shutting down one of San Francisco's greatest treasures. The Corps and Port should engage in more detailed feasibility studies and consider alternative, incremental approaches instead of the ambitious Reach 2 approach. The plan should also consider the concerns of stakeholders along the waterfront, ensuring its early demise if not undertaken cautiously.	sponsor, City departments, transportation agencies (e.g., SFMTA, BART, Caltrans), and community stakeholders since 2017. This coordination ensures that the project aligns with ongoing development projects, maintains access to critical facilities, and minimizes disruption to businesses and commuters during construction.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-046	1	Public Commenter	In the TSP Initial Actions, we recommend elevating Bay and Creek shorelines along Reaches 3 and 4 to defend against 3.5 feet of SLR. The TSP is implementing Initial Actions to defend against 1.5 feet of sea level rise (SLR) in San Francisco, including elevating the shoreline along Reach 3 and 4, 3.5 feet along Reach 2, and floodproofing buildings along Reach 1. The Ocean Protection Council 2024 Draft SLR Guidance predicts that San Francisco could experience between 1.1 and 2 feet of SLR by 2060 and 3.1 to 6.5 feet by 2100.1. The proposed construction from 2030-2040 may only be functional for 15 years before further construction is required. The proposed start year of 2030 and the planned 10-year construction period (2030 to 2040) are unrealistic timelines for initial adaptation actions. Defending against 3.5 feet of SLR across Reaches 3 and 4 could protect the city until about 2100. Building higher initially could save money and reduce disruptions to businesses and residents over the next 70 years.	The study followed the USACE plan formulation process to evaluate alternatives and measures that would meet the project's purpose and need. The study is seeking authorization for an initial action that was developed based on risk reduction following the best available information. The proposed construction includes measures that are designed to be flexible and scalable, allowing for adjustments based on future conditions and monitoring data. This approach aims to maximize the lifespan and effectiveness of the defenses while minimizing costs and disruptions. Appendix G indicates that longer-term planning efforts will have the flexibility to develop subsequent actions consistent with future conditions, values, and fiscal constraints. The monitoring and adaptation plan will provide a framework for assessing the effectiveness of the defenses and making necessary adjustments based on observed changes in sea level rise and other factors.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-046	2	Public Commenter	The TSP should include initial and subsequent actions for addressing groundwater rise and protecting water quality where stormwater/groundwater pumping is required. The Draft Flood Study acknowledges groundwater rise, but lacks specific actions to address risks. As sea levels rise, stormwater and groundwater pumping become more necessary to prevent inland flooding. It's recommended that updated or expanded systems be designed to limit untreated overflows into the Bay. Stormwater is a significant source of Bay pollution, and cities must comply with the Clean Water Act. San Francisco's combined sewer system output is largely subject to regulatory compliance standards, but if not expanded, polluted outflows may become more common.	See Master Response #1 See response to Submission # DIFR/EIS-E-046, Comment #1 The project will comply with all Federal environmental laws and regulations, including the Clean Water Act. Detailed designs would be pursued during PED which would evaluate stormwater and groundwater pumping capacity needs.
DIFR/EIS-E-046	3	Public Commenter	Provide clear justification for the need for bay fill and minimize the use of bay fill when possible. The TSP proposes the use of eight acres of bay fill for seawall construction and transit infrastructure protection in Reach 2. Bay fill is mentioned in Independent Measures 2A and 2B, but the Draft Flood Study acknowledges its potential habitat loss and uncertain impact on coastal hydrology. A thorough evaluation of the impacts and justification for bay fill's use is needed before proceeding, as it could lead to a lack of alternatives.	Efforts to minimize bay fill, while also meeting the project's purpose and need, were considered during plan development. Bay fill occurs primarily where there is limited adaptation space due to existing infrastructure constraints (e.g. Folsom Muni portal). Details on the analysis of bay fill and conceptual plan to offset the unavoidable impacts are provided in Appendix K. During PED, compensatory mitigation needs would be reassessed and appropriate mitigation measures pursued.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-046	5	Public Commenter	Regarding the Flood Study and future SF waterfront planning: Protect residents and the Bay ecosystem from contaminants mobilized by coastal flood inundation of shoreline contaminated sites by presenting a clear strategy for 1.) partnering with community-based organizations, 2.) prioritizing sites for research and mitigation, and 3.) funding necessary actions. The Draft Flood Study identifies 61 sites with hazardous substances affecting soil and groundwater within the project's footprint. Sixteen of these sites will be impacted by construction activities, while 34 leaking underground storage tank sites may require special management. The City plans to explore options to address contaminated sites and learn about human and ecosystem health risks. However, the total project costs should reflect the need for additional studies and management of contamination. The City should also list available funding sources for addressing contaminated sites. Contaminants of concern include arsenic, asbestos, volatile organic compounds, and polychlorinated biphenyls. Exposure to these contaminants could negatively impact the health of San Francisco Bay and residents living and working near these sites.	See Master Response #5

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-047	2	Erik Buehmann (Bay Conservation and Development Commission)	The Project area is located within BCDC's permitting jurisdiction: -Bay Jurisdiction: In the San Francisco Bay, being all areas subject to tidal action, including tidelands (land lying between mean high tide and mean low tide) and submerged lands (Government Code Section 66610(a)); and -Shoreline Band Jurisdiction: In the shoreline band consisting of all territory located between the shoreline of the Bay, as described above, and 100 feet landward of and parallel with the shoreline (Government Code Section 66610(b)). A BCDC permit is required for fill, extraction of materials, and any substantial change in use within the Commission's jurisdiction. Fill includes solid fill, pile-supported structures, cantilevered structures, or floating fill. Furthermore, rehabilitation of existing piers may be considered Bay fill depending on the work associated with the rehabilitation. It is often necessary to coordinate with BCDC staff to appropriately identify the jurisdiction in which work may take place and identify the appropriate standards and policies that may apply.	See Master Response #3 Section 8 in the final IFR/EIS describes participation of federal, state, and local agencies, which includes BCDC.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-047	3	Erik Buehmann (Bay Conservation and Development Commission)	...the federal Coastal Zone Management Act allows the Commission to review federal projects and projects that require federal approval or are supported with federal funds...CDC encourages USACE and the Port to coordinate the state permitting and federal consistency determination processes. In addition, prior to submitting any permit application or consistency determination to BCDC, BCDC staff strongly requests the Port of San Francisco staff and USACE staff to meet with BCDC staff to review any project proposals, coordinate approvals, and review any issues raised by BCDC's laws and policies very early. BCDC staff request that any future consistency determination not be submitted without prior consultation with BCDC staff. While BCDC staff have participated in a number of meetings and processes related to this study, including participation in the Resource Agency Working Group, individual preapplication consultation with BCDC staff is critical to the efficient review of major projects.	The final IFR/EIS and sub-appendix D.1 acknowledge that BCDC has the authority to manage coastal areas within the project study area as stipulated in the Coastal Zone Management Act. The USACE has coordinated with BCDC throughout the study process with respect to the agency's jurisdiction over resources protected under Federal law. The USACE commits to continue coordination with BCDC during future phases of the project to ensure the project's consistency with CZMA prior to construction.
DIFR/EIS-E-047	5	Erik Buehmann (Bay Conservation and Development Commission)	The San Francisco Waterfront Special Area Plan (SAP) applies the requirements of the McAteer Petris Act and the provisions of the San Francisco Bay Plan in greater detail to the San Francisco Waterfront....BCDC staff recommend the Port, with the assistance of the USACE, consider this comprehensive SAP update as it develops the Study, in particular to identify future public benefits early.	The final IFR/EIS and annex D.1.7 identifies these BCDC plans and acknowledges that project must comply with the SAP, McAteer-Petris Act, and the Bay Plan. The USACE looks forward to ongoing coordination with BCDC and further consideration of these plans.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-047	6	Erik Buehmann (Bay Conservation and Development Commission)	...The Study area from Aquatic Park to Herons Head in San Francisco is included on Bay Plan Maps 4 and 5 and it includes several Port Priority Use Areas at China Basin (Piers 48 and 50), Central Basin (Pier 68), and surrounding the Islais Creek Channel (Piers 80, 90, 92, 94, and 96). Any proposals for placing fill, extracting materials, or changing the use of any land, water, or structure within those areas that are designated for Port Priority Use in the Bay Plan must be developed and managed in a manner consistent with applicable policies of the McAteer-Petris Act and the Bay Plan as well as BCDC's Seaport Plan. The Study should consider the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Priority Use Areas and the Seaport Plan. In addition, we request that the Study should consider consistency with the Waterfront Beach Priority Use Areas as that Priority Use applies to areas along the San Francisco Waterfront....	See response to Submission# DIFR/EIS-E-047, Comment #3
DIFR/EIS-E-047	7	Erik Buehmann (Bay Conservation and Development Commission)	...BCDC staff recommend that USACE and the Port align the proposed study and any subsequent plan with the Bay Adapt Regional Shoreline Adaptation Plan guidelines. The study, or any resulting plans or projects, may require modifications based on these guidelines in the future.	See response to Submission# DIFR/EIS-E-047, Comment #3

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DIFR/EIS-E-047	8	Erik Buehmann (Bay Conservation and Development Commission)	Section 66605 of the McAteer-Petris Act sets forth the criteria necessary to authorize placement of new fill in the Bay and certain waterways...the Study does not currently propose significant fill outside of the existing footprint of the piers and shoreline. The Study should continue to prioritize minimizing fill, minimizing harmful effects to the Bay, and strong safety standards for development in the Bay. ...Bay Plan policies on Mitigation require projects to be designed to avoid adverse environmental impacts....We recommend that USACE and the Port collaborate closely with BCDC, and other relevant agencies, to ensure that mitigation approaches identified are consistent with BCDC's laws and policies and a coordinated approach is developed.	See response to Submission# DIFR/EIS-E-047, Comment #3

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-047	9	Erik Buehmann (Bay Conservation and Development Commission)	As a requirement of the BCDC permitting process, equitable and culturally-relevant community outreach and engagement should be conducted for nearby communities. The Study should incorporate feedback from culturally-relevant community outreach and engagement efforts, identify impacts from adjacent communities from resilience and adaptation measures. Furthermore, the Study should include a more comprehensive explanation for how the Study Area was determined, to ensure the communities within and adjacent to the Study area are aware of why areas that include underrepresented or vulnerable communities, such as Hunters Point, are not included in the Study area. To assist in these efforts, BCDC staff suggest consulting BCDC's Community Vulnerability and Community Based Organization Directory mapping, which was developed by BCDC's Adapting to Rising Tides Program to support shoreline adaptation planning and be used by the public and project proponents to help implement BCDC's Environmental Justice and Social Equity Bay Plan policies.	See Master Response #7 Appendix H describes the engagements for soliciting and encouraging public input. Section 3.3 Waterfront Resilience Program Community Engagement provides information on the extensive engagement process implemented as the plan and NEPA documentation were being developed. Community vulnerability was evaluated in the Other Social Effects account, as detailed in Appendix E.
DIFR/EIS-E-047	11	Erik Buehmann (Bay Conservation and Development Commission)	Groundwater rise driven by climate change is an emerging concern in the Bay Area and while the full extent of its impacts is still being studied, recent analyses offer initial steps and methods to review the vulnerability of a shoreline site to groundwater rise and flooding. The prevalence and severity of shallow groundwater rise in certain areas may make it infeasible to rely on shoreline	See Master Response #1

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			protection structures as shallow groundwater rise will lead to flooding that permeates up from the soils (as opposed to overtopping from the Bay). Groundwater flooding can contribute to mobilization of contaminants. While there may be engineering strategies, such as pumping and draining, that would be used in these instances, the long-term cost of these strategies and length of time they will be effective for should be considered early as part of the local planning. While Appendix B.1.5 includes maps of existing groundwater, however the Study should extensively map future scenarios of emergent groundwater flooding consistent with projections for rising sea level and storms. The Study should provide a clearer link between section 2.4.6 and 3.3.1.7 to ensure groundwater flooding is given appropriate context. Furthermore, the impact to groundwater flooding induced from sea level rise to critical infrastructure around the shoreline, such as sewage, should be carefully considered in the strategies identified by the Study. Groundwater pumping impact to subsidence and adjacent communities should also be considered.	

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-047	12	Erik Buehmann (Bay Conservation and Development Commission)	Summary: Bay Plan has several policies regarding shoreline protection that need to be addressed during the BCDC permitting process. "Development of approaches to resilience and adaptation alternatives should incorporate natural or nature-based features to be consistent with the San Francisco Bay Plan, to the greatest extent practicable. Projects that will result in a future BCDC permit application that do not incorporate natural or nature-based approaches will be required to demonstrate why those approaches are not feasible. The Study currently identifies some areas of the shoreline as appropriate for natural or nature-based solutions but not others, and the feasibility of natural or nature-based solutions in areas not identified for those alternatives is not clear. The Study should evaluate the feasibility of natural or nature-based or hybrid solutions for the entire waterfront to support the design basis for future projects."	See Master Response #4
DIFR/EIS-E-047	13	Erik Buehmann (Bay Conservation and Development Commission)	The habitats listed in Appendix K do not match the aquatic resources listed in 2.3.1 or the upland resources in 2.3.2. It is suggested that consistent source for naming vegetation types and habitat types is used throughout the Study, preferable the MCV.	Sub-Appendix D.1 describes resources within the study area, while Appendix K focuses on resources requiring compensatory mitigation. The sections and appendices were reviewed for consistency.

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DIFR/EIS-E-047	14	Erik Buehmann (Bay Conservation and Development Commission)	Many locations along the waterfront have been identified as or could serve as critical facilities for emergency evacuation via water transit services. It is imperative to protect and maintain the usability of these facilities. BCDC's Engineering Criteria Review Board have commented on the necessity of ensuring the seismic stability of these structures so they remain viable in the event of an emergency. (This is based on the findings from BCDC Permit No. 2016.001.03) BCDC staff recommend considering additional critical response points, such as Pier 35/Alcatraz landing; Pier 27 Cruise Terminal; Pier 3, Piers 38-40, Oracle Ferry Dock, and Bayfront Ferry Terminal.	The final IFR/EIS, Section 2.5.2 outlines critical disaster response infrastructure. The final IFR/EIS also includes assessment of earthquake life safety and structure resilience along the waterfront (Appendix B). The following critical response points have been included in section 2.6.2 in the final IFR/EIS: • Pier 35 • Pier 31.5 Alcatraz Landing • Pier 27 Cruise Terminal • Pier 3 • Pier 40/South Beach Harbor • China Basin Ferry Landing.
DIFR/EIS-E-047	15	Erik Buehmann (Bay Conservation and Development Commission)	Summary: Bay Plan has several policies regarding public access and recreation that will need to be addressed during the permitting process	Public access and recreation plans would be developed during PED. The USACE commits to working with BCDC for permitting requirements prior to construction of the project.
DIFR/EIS-E-047	16	Erik Buehmann (Bay Conservation and Development Commission)	...The Study includes reconstruction and redesign of the Embarcadero roadway. While BCDC staff recognize that surface design of the Embarcadero roadway and promenade will be determined in future project phases, BCDC policies in the Bay Plan, San Francisco Waterfront Special Area Plan, and finally Public Access Design Guidelines by BCDC should be considered in early planning stages....	See Master Response #3

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DIFR/EIS-E-047	17	Erik Buehmann (Bay Conservation and Development Commission)	Bay Plan Appearance Design and Scenic Views Policy No. 2 states, in part that “[a]ll bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay,” with “[m]maximum efforts...made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas, from the Bay itself, and from the opposite shore.” Policy No. 8 stresses that “[s]tructures and facilities that do not take advantage of or visually complement the Bay should be located and designed so as not to impact visually on the Bay and shoreline. Shoreline developments should be built in clusters, leaving open area around them to permit more frequent views of the Bay.” From Shoreline Spaces Public Access Design Guidelines for the San Francisco Bay guidance document, Objective No. 3 states “Provide, maintain and enhance visual access to the Bay and shoreline, ”and Objective No. 4 further informs us to “Maintain and enhance the visual quality of the Bay, shoreline and adjacent developments.” Lastly, the San Francisco Waterfront Special Area Plan General Policy No. 7 states, in part, that “[i]mportant Bay views along The Embarcadero and level inland streets should be preserved and improved.” Potential view corridors should be evaluated and identified as part of the Study’s overall review of public access opportunities. In addition, shoreline protection strategies, such as walls and elevating the shoreline can impact views to the Bay. These impacts should be carefully	The final IFR/EIS, sub-appendix D.1, Section 4.23, provides a description of the project’s potential impacts on visual resources. Overall, the visual impacts of the proposed alternatives are expected to be less than significant once construction is completed, as views of natural features would remain available from multiple vantage points. Additional details regarding development of this assumption can be found in sub-appendix D.1. Viewshed and visual effects are also evaluated under Section 106 of the National Historic Preservation Act (NHPA). Annex D.3.1 describes how areas of potential effects will be determined and how adverse impacts to views from and toward historic properties are to be included in the Cultural Resources investigations. See Master Response #6

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			considered and designs to avoid impacts to views, preserve or improve viewing to the Bay should be incorporated in the design and selection of alternatives.	
DIFR/EIS-E-047	18	Erik Buehmann (Bay Conservation and Development Commission)	To improve the clarity and understandability of the Study to the public, BCDC staff recommend reducing the number of acronyms in the Study. In addition, the Study should include more maps and graphics throughout the document. Of particular need is to pair maps and graphics when different reaches and alternatives are discussed, to better orient and inform the reader	Additional maps have been incorporated into the main report and appendices. A list of acronyms is provided in the final IFR/EIS, as well as acronyms defined at first use in the text.
DIFR/EIS-E-050	2	Diane Matsuda (San Francisco Historic Preservation Committee)	Further, questions were raised as to whether the proposed coordinated efforts are utilizing consistent sea level rise data, time horizons and assumptions. The HPC believes that the economic impact of the draft plan is an important component of the project analysis and encourages the USACE and Port to look at resilience efforts nationally to understand how other entities are approaching this important topic and the treatment of cultural and historic resources. In short, HPC would like to see a comprehensive strategy taking place and remains concerned that the adaptation of some portions of the waterfront might accidentally worsen sea level rise risks in other areas.	See Master Responses #1 and #6 The revised PA (annex D.3.1) indicates how Section 106 will accommodate the phasing and duration of the project.
DIFR/EIS-E-050	4	Diane Matsuda (San Francisco Historic Preservation Committee)	The HPC would like to request a project timeline and detail on the various phases of the project implementation. Specifically, which projects will be delivered first and how that relates to vulnerable populations	See Master Responses #6 The revised PA (annex D.3.1) indicates how Section 106 will

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			like the Islais Creek area. Also, of interest is whether projects will be building on one another or replacing earlier work to achieve increasing levels of resilience	accommodate the phasing and duration of the project. Section 6 of the final IFR/EIS provides the latest available information on Plan Implementation. Additional detail would be developed during PED.
DIFR/EIS-E-050	5	Diane Matsuda (San Francisco Historic Preservation Committee)	The 60-day comment period for such an important and large scale NEPA process does not provide adequate time to notify and receive comment from the many stakeholder organizations that will be affected by the plan. Some organizations meet infrequently or on a monthly basis and need time to disseminate information to their membership. While we understand that the Section 106 process will continue beyond the 60-day comment period for NEPA/EIS, it would be appropriate for the USACE to provide a comment period proportional to the size and complexity of the project in the future. Each step of the process is important and historic preservation and community stakeholders must have adequate time to respond to both the EIS and the Section 106 and Programmatic Agreement.	NEPA requires a 45-day public review period for environmental impact statements (EIS's). The USACE extended this review period to 60-days to afford additional time for public review and comment. For Section 106, the PA (annex D.3.1) describes the review process, times, and opportunities for extending review periods.
DIFR/EIS-E-050	7	Diane Matsuda (San Francisco Historic Preservation Committee)	The HPC would also encourage cooperation between the USACE and Planning Department to identify historic properties outside of the Port's historic districts. The Planning Department's Citywide Survey process underway may provide the best approach for evaluating the significance of properties that will reach the 50-year age threshold within the draft plan timeframe and so that they can	See Master Response #6 The APE would include all impacts of the project.

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			be considered for eligibility on the California and/or National Registers.	
DIFR/EIS-E-050	9	Diane Matsuda (San Francisco Historic Preservation Committee)	The HPC requests information on the results of proposed adaptation measures and how the elevated buildings like the Bulkhead and Ferry Buildings will be designed. The treatment of these contributing and landmark resources to address sea level rise is very important and will require in-depth analysis and discussion among the various stakeholders.	See Master Response #6 Concur. These suggestions are part of the cultural resource investigations, impact analysis, and mitigation development. This would be included in cultural resources work completed during PED as more detailed designs are available.
DIFR/EIS-E-051	2	Public Commenter	The parking lot on Piers 30-32 is ugly, incompatible with to the City's mode shift and street safety goals, and inconsistent with the City's General Plan and the SF Waterfront Special Area Plan. It deposits automotive pollutants directly into the Bay. It should be removed as part of this project.	See Master Response #10 This is beyond the scope of this project. The study area and scope can be found in the final IFR-EIS sections 1.5 and 1.10, respectively. It is not within the purpose or scope of the study to update visually displeasing infrastructure.
DIFR/EIS-E-051	3	Public Commenter	For millennia Islais Creek was a significant wetland on San Francisco bay, and in the past two centuries has been reduced to highly polluted engineered channel with greatly diminished ecological and open space value. There is no reason that Islais creek remain navigable to oceangoing ships, and we strongly favor removing the requirement and the Army Corps' purview over the Creek. We also favor the alternatives outlined in the draft plan which call for removal of industrial structures and associated Bay fill on the south bank of the Creek Channel and to create a gradual shoreline, tidal habitat, and a continuous	As indicated in Section 1.7 Purpose and Need of the final IFR/EIS, the purpose of the study is to investigate the feasibility of managing tidal and fluvial flooding and sea level rise within the study area. At this time, the USACE are not considering large scale restoration actions to meet the study's purpose and need.

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			walking and cycling path around the entire creek.	
DIFR/EIS-E-053	5	City of San Francisco	Recommend clarifying the various portals as it is not clear what the “Ferry Portal” is referencing.	Section 2.2.3.1 in annex D.1.4 has been revised for clarity.
DIFR/EIS-E-053	6	City of San Francisco	1399 Marin is owned by the Port. Recommend clarifying the role that this facility plays and also organizing the info on page 10 and 11 so that facilities are distinct from other assets such as the portals, special trackwork, etc.	Section 2.2.3.1 in annex D.1.4 has been revised for clarity.
DIFR/EIS-E-053	7	City of San Francisco	Noting that MTA does update its transit network to meet demand so please keep this in mind. For example, there may be new service for the Mission Bay Ferry Terminal.	Comment noted.
DIFR/EIS-E-053	8	City of San Francisco	Consider including significance criteria that specifically address safety and accessibility and evaluate potential transportation impacts against those criteria. Potential effects could also include damage to assets, loss of access, congestion and a suite of economic, equity and mobility related impacts.	Annex D.1.4 analyzes potential effects of alternatives on accessibility, congestion, transit, and bicycle and pedestrian facilities and includes recommended avoidance and minimization measures to reduce construction effects on traffic, transit, and bicycle and pedestrian modes. Additional significance criteria are not necessary to consider these effects.
DIFR/EIS-E-053	9	City of San Francisco	The language on page 21, does not appear to capture the critical role of the bridges to accessing MME for operations/maintenance and for citywide LRV service. The section should be updated.	Section 2.2.3.1 of annex D.1.4, revised to address the importance of bridges to access MME.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-053	12	City of San Francisco	During construction, implementation of the TNBP would reduce capacity at the SFMTA's 1399 Marin Facility by 50%, Islais Creek Facility by 20% and Muni Metro East by 50%. Capacity at Mission Bay Loop would be reduced by 100% during construction and operation. This was identified as a less than significant impact with implementation of AMM TR-4 and AMM-TR-9. Please further clarify what the estimated capacity reductions at these facilities would mean for Muni operations to that SFMTA can further consider whether these mitigation measures would be adequate to ensure the reductions would result in a less than significant impact. Additional mitigation may be needed to reduce the impact to less than significant	Disruption to Marin Facility and Islais Creek Facility would be less than under the future without project condition and therefore, this impact was identified as less than significant with mitigation. Additional evaluations of impacts to transportation facilities would occur as project design is advanced during PED.
DIFR/EIS-E-053	21	City of San Francisco	In addition to the air quality and noise effects identified in the analysis, construction-related effects would include transportation effects (transit and general mobility). This is because the Muni lines what would be most affected during construction (e.g., T-Third) serve EJ communities in the Bayview.	Section 2.3. of annex D.1.3, revised to identify transportation impacts.
DIFR/EIS-E-053	37	City of San Francisco	Construction noise analysis: for actions that require pile driving please also assess impacts to commercial uses using FTA criteria of 100 dBA 1 hour Leq	Revisions have been made to annex D.1.2 to include this consideration.
DIFR/EIS-E-053	39	City of San Francisco	Reconsider overall conclusion for alternatives that find construction noise as less than significant in consideration of the full scale of the project and duration of construction activities necessary to implement the program. A less than	The less than significant conclusion assumes implementation of mitigation. The significance of noise impacts is not the overall number of affected receptors or the overall duration of the project, but

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			significant conclusion does not seem supported.	rather the level of impact, after mitigation, to individual receptors.
DIFR/EIS-E-053	43	City of San Francisco	This page number references Appendix D-5 and D-6 as a BA prepared for implementing the TSP. These appendices appear to be missing.	The Biological Assessments prepared for consultation under ESA are included in the final IFR/EIS in annex D.6.1 and D.6.2.
DIFR/EIS-E-053	45	City of San Francisco	This section lays out overview of Gov and Management Structure for monitoring, adaptation, and phasing process. While it identifies that other City agencies are to be involved, primarily POSF and USACE to lead. Suggest that other city agencies with technical expertise could be identified specifically as part of proposed government structure for Adaptation Management Team (AMT). Also says "charter defining the AMT's decision making and reporting process will be developed during PED" Suggest who all involved in drafting and reviewing that charter is identified.	Appendix G identifies entities that would be relevant to the Adaptation Management Team. Further development of the team would occur during PED.
DIFR/EIS-E-053	47	City of San Francisco	In general, the summary and analysis for cultural and tribal cultural resources in the POSF Waterfront Plan EIR does not appear to inform this analysis. Suggest that specifically review of archeological resources sensitivity, summary of TCRs, and survey of aboveground historic resources along the waterfront from that EIR would inform this cultural resources analysis. Additionally, organizing analysis by planning district rather than Reach adds to confusion of the cultural resource analysis, especially as planning districts do not correspond to reach areas for this project. Suggest revising to summarize cultural resources by reach instead.	See Master Response #6 The cultural resource analysis has been revised and is now organized by reach, annex D.3.1. Additional in-depth analyses would be conducted in PED as designs are refined and exact impacts are known.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-053	48	City of San Francisco	Suggest including Secretary of the Interior's Standards for the Treatment of Historic Properties into Federal regulation. Suggest separating out CEQA and California Register of Historic Resources in State regulations.	See Master Response #6 The PA and cultural resources annex (D.3.1) have been revised.
DIFR/EIS-E-053	49	City of San Francisco	Include reference to Article 10 and 11 of SF Planning Code and include reference to HPC Charter to provide review and comment of CEQA NEPA, and NHPA documents.	See Master Response #6 The Federal Section 106 process was followed during this study.
DIFR/EIS-E-053	50	City of San Francisco	Review summary of resources on this page, summary doesn't appear to include resources listed or eligible for the NR, although those are mentioned in historic resources summary (see 3.13) and in the PA.	Revisions have been made to the respective sections.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-053	51	City of San Francisco	Impact determination in this section is confusing and requires further clarity. The finding of "too speculative for meaningful consideration" for aboveground resources is confusing as there are known National Register resources that are proposed for demolition, additionally this determination is unclear as the determination for archeology is "significant and unavoidable" although the analysis of archeological resources appears to be more speculative (as likely buried resources are yet to be identified). Also how this impact determination relates with other determinations later in the cultural resources section could use further explanation. Additionally, the measures ranked in Tables 4-45 to 4-47 don't clearly align with the proposed measures/actions discussed in the analysis, making the justification for the numerical ranking unclear. For example, in Table 4-45, why is Roadway Impact a five (5)? Finally, an overview table that captures each of the impact determinations for each type of cultural resources (above ground, archeological, and TCP) for each of the alternatives would be very helpful.	See Master Response #6 These analyses would be completed during PED and follow the steps outlined in the PA for frequent consultation with consulting parties. All known resources such as these would be presented in the Research Design for Cultural Resources Investigations. Section 106 is triggered by specific impacts and cannot be completed until PED, as designs are finalized, and exact impacts are known. Avoidance and minimization may be possible and would be the initial mitigation strategy.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-053	52	City of San Francisco	Baseline for cultural resources impact determination doesn't appear to be consistently applied throughout this section. Inundation impacts are determined to be LTS as a smaller area will be inundated for most alternatives than for FWOP. However, it isn't clear how treatment of especially aboveground historic properties will occur in FWOP, although Cultural Resources summary in Table 4-8 indicates that historic resources could be impacted under the No Action. Suggest that further development of impacts to historic resources under the No Action would help to further inform impacts under the other alternatives.	Revisions have been completed.
DIFR/EIS-E-053	53	City of San Francisco	Pre-construction archeological testing can be very useful to identify buried or deeply buried archeological sites. Suggest that the treatment plan for archeological resources make it clearer that such testing programs would be undertaken, rather than discussing treatment methods for known sites and discovery provisions for those sites identified during construction, as it would be rare for sites to be discovered as they are impacted by deep foundation work. This discussion would be aided by discussion of known and likely archeological resources within the study area.	See Response to Submission # DIFR/EIS-E-053, Comment #51

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-053	54	City of San Francisco	Ensure that description of archeological sensitivity is consistent. For example, Page 4- 133 says that construction into sea floor could result in impacts to archeological resources while Page 4-128 states that construction into the floor of the bay has low potential to impact archeological resources. Depending upon reach and depth, construction into bay mud / marine sands / Colma formation could result in impacts to significant archeological resources.	The cultural resource analysis has been updated for consistency concerns (Sub-Appendix D.1 and annex D.3.1).
DIFR/EIS-E-053	55	City of San Francisco	Tubbs Cordage Company Office Building is called out several times in discussions of demolition of aboveground resources or abandonment. This small frame building has already been moved several times. Suggest that proposed treatment would be to move this building again to area that would not be inundated.	See Response to Submission # DIFR/EIS-E-053, Comment #51
DIFR/EIS-E-053	56	City of San Francisco	Reference to the PA and production of a PHPMP is vague, suggest adding types of specific mitigation measures that could result from the PHPMP.	The revision has been made.
DIFR/EIS-E-053	57	City of San Francisco	Please add San Francisco Planning Department to list of consulting parties. Suggest that San Francisco Planning Department, who maintains archeological expertise on staff for the City and County of San Francisco, would assist the Port regarding treatment of archeological resources. Suggest that HPC should be a signatory and not a consulting party on the PA.	The revision has been made.
DIFR/EIS-E-053	58	City of San Francisco	Suggest that work conducted under this PA be undertaken by qualified professionals that have experience working in San Francisco Bay Area, are	See Master Response #6

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			familiar with resource types found in SF Bay area and/or have experience in Urban Archaeology and geoarchaeology.	The appropriate professional experience will be required in the SOW and RFP for the CR contract.
DIFR/EIS-E-053	59	City of San Francisco	Suggest specifically calling out review of SF Planning Department data as part of this process, as SF Planning is responsible for the citywide survey of historic properties (SF Survey) and holds citywide archeological data and sensitivity analysis.	The PA has been revised (annex D.3.1) to include description of the Section 106 process.
DIFR/EIS-E-053	60	City of San Francisco	Add additional details on how SHPO, Tribes, and consulting parties will consult on the PHPMP. Suggest that RFQs or other solicitations for consultants for the PHPMP are reviewed by SHPO, Tribes, and consulting parties along with scopes and outlines for the PHPMP. Provide at least 45 days for outside review of the PHPMP, suggest that 60-90 days is more appropriate for document of that scale.	The PA has been revised (annex D.3.1).
DIFR/EIS-E-053	61	City of San Francisco	Port and SF Planning/HPC should be included in notification of unanticipated archeological discoveries and concurrence on treatment and reporting and receive copies of all reports.	See Master Response #6 All consulting parties will review products and procedures as outlined in the PA (annex D.3.1).
DIFR/EIS-E-053	62	City of San Francisco	SF Tribal representatives have requested that we use Native American (preferred) or precontact (if temporal period is needed) instead of prehistoric. Also, suggest that summary of local Native Americans include: "San Francisco was traditionally inhabited by the Yelamu people, who spoke the Ramaytush dialect of the Costanoan languages."	Where possible the USACE uses Native American. For some Federal Section 106 language, the USACE uses Tribes because that is the language in Federal law.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-053	63	City of San Francisco	Please update the impact analysis under the Future without Project Scenario under Section 4.6 to reflect the analysis in Appendix E, Economic and Social Considerations, Section 5. Non-G2CRM Benefit Categories (pages E-117 – E-131). That analysis suggests more impacts under the FWOP Scenario to the Embarcadero Historic District than the TNBP, including potential loss of the District due to loss of historic wharves to either earthquakes or age and deterioration by the 2050s. By contrast, the Draft Plan will extend the life of the Embarcadero Historic District.	See response for Submission # DIFR/EIS-E-053, Comment #52
DIFR/EIS-E-053	65	City of San Francisco	Include San Francisco Bay Water Trail	See Master Response #6
DIFR/EIS-E-054	4	Public Commenter	In Appendix K Mitigation we recommend a replacement nesting/roosting platform for shorebirds. At Heron's Head Park Black Oystercatchers have used the dilapidated Lash Lighter Cove pier. Black Oystercatchers nest on rocky offshore islands to prevent predation of their eggs and chicks by raccoons and other predators. These islands were blown up and removed from San Francisco Bay. A nesting/roosting platform with pea gravel and an edge could be used by shorebirds during King Tide and other high tide events since much of the shoreline will be impacted by high tides/storm surge.	The USACE is required to provide compensatory mitigation to offset unavoidable impacts of the project. The project does not anticipate resulting in permanent loss of nesting habitat for Black Oystercatchers. Providing restored habitat for this species is beyond the scope of this study and does not meet the purpose and need. Additional information on the study's purpose and need, and scope can be found in the final IFR-EIS sections 1.7 and 1.10, respectively.
DIFR/EIS-E-056	3	Public Commenter	Plans cannot be adaptable if there is contamination present, even if that contamination had been previously capped. There must also be clear and aggressive plans outlined in the Draft Flood Study for sites that contain contamination.	See Master Response #5

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-056	5	Public Commenter	The specific actions for ensuring the shoreline is resilient to liquefaction and other related threats is currently unclear. When these actions, methods, techniques, and practices are decided there must be an EIR (with a timeline) and opportunity for public comment and participation.	Seismicity and liquefaction are important environmental hazards that have been assessed in the study as described in sub-appendix D.1. The Recommended Plan includes actions in discrete locations to mitigate lateral spreading and liquefaction hazards along the coastal flood defense alignment to meet required seismic performance objectives.
DIFR/EIS-E-057	2	Public Commenter	We understand that the Draft Plan does not address the details of how the project will be funded, but we would like to make sure that there is an acknowledgement of the following: a) Don't penalize work commenced or completed before the formal project commences. Recognize early investment in applicable resilience work by the Port and its private sector partners that occurs between now and when the formal project commences. Such early work should count towards required matching funds for Federal investment, and should be eligible for Federal match even if commenced or completed before the formal project; b) Don't penalize investment in work that goes beyond the First Actions, especially in Fisherman's Wharf. Economies of scale, constructability and other practical considerations may instruct the Port and its partners to make investments that go beyond the scale of the contemplated First Actions in the Draft Plan. Such work should still count towards, and be eligible for, Federal matching funds.	The USACE will follow internal policy and Federal regulations on sharing of project costs.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-058	1	Public Commenter	Because this document is an unusually integrated hybrid study, report, and Environmental Impact Statement (EIS) it must not be established as precedent to stand for, or waive, any NEPA, CEQA, or other required environmental review before approval of individual projects within the Project area. This must be clearly established in the final text of the document. Further, the finalization and approval of this document must not constitute a Project Area Plan providing any legal waiver of required environmental review that was previously required of individual projects within the Plan area prior to the adoption of this document.	An Environmental Impact Statement was developed to comply with requirements of NEPA. The project will comply with all required Federal laws and attain the necessary permits prior to construction. Sub-appendix D.1 provides description of the status of the project's compliance with applicable laws.
DIFR/EIS-E-058	2	Public Commenter	The Draft Integrated Feasibility Report does not include environmental sampling of soil or groundwater, and records of historically identified contamination were consulted. This document cannot be considered a completed EIS or EIR under NEPA or CEQA for completing NEPA or CEQA review for individual projects or the Project as a whole. The entire Project area contains extensive hazardous contaminants, including Hazardous, Toxic, and Radioactive Waste (HTRW). In the mid-2010s, criminal malfeasance was discovered and prosecuted, leading to criminal convictions and civil penalties against a contamination cleanup contractor. This makes determining the final condition of industrial contaminants in the Project area highly uncertain. The Plan needs to require extensive deep soil and water testing before projects are approved or built.	See Master Response #5

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Submission #	Comment #	Name/Organization	Comment text	Response
			The USACE, the City of San Francisco, and the Port must address this issue before final approval and initiation of the plan. The USACE team acknowledges that the plan does not address broad soil contamination geographies within the scope, and that sea level rise will mobilize contaminants, resulting in hazardous impacts to human health and the environment. A comprehensive evaluation of all San Francisco near-shoreline areas has not yet been performed for potential contamination sources and areas. The decision of the USACE to only analyze contamination records within the Project footprint, and the connected decision to not analyze records for radioactive contaminants, is an error that must be corrected.	

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-058	3	Public Commenter	The Plan for addressing sea level rise (SLR) is inadequate to protect shoreline or bayside communities from contamination and hazards due to sea level rise and groundwater rise. The Plan projects a potential worst-case SLR of 1 meter by 2050 and 2 meters by 2100, downplaying these potentials. To ensure responsible parties don't have to revise plans when projections become more severe, the Plan should expand beyond reliance on IPCC projections and prioritize more definitive and prescriptive National Oceanic and Atmospheric Administration (NOAA) projections. The worst-case scenario standards should go beyond NOAA projections and adopt more cautionary SLR predictions made by climate expert James Hansen. The Plan should also advise responsible parties to assume at least 5 meters per century in their worst-case SLR projections and adopt a 100% margin of error as the standard assumptions for all policy-making, environmental protection, mediation measures, and project design when incorporating SLR impacts.	See Master Responses #1 and #5
DIFR/EIS-E-058	7	Public Commenter	The Plan must specifically define a more robust proper clean up standard that fits 21st century realities, and must not allow waste to be capped or otherwise contained in light of unprecedented dangers posed by SLR and groundwater rise.	See Master Response #5
DIFR/EIS-O-001	1	Public Commenter	I recommend that you define RSLC in the Executive Summary. You define it in the table of acronyms, but that's a long ways down.	The executive summary was updated to define acronyms as appropriate.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-002	1	Public Commenter	Please make sure that the Ferry Market still happens somewhere nearby with full transit access like it has now. Make sure the farmers can easily get their products to market, have adequate parking, etc. The Ferry Market is one of the best things in San Francisco; please don't negatively impact it!	See Master Response #9 The USACE understands the critical importance of the Ferry Building and the many businesses and markets it houses and supports.
DIFR/EIS-O-005	1	Public Commenter	Regarding berms along Mission Creek, I suggest also raising the sidewalk along Berry Street as well. I want to draw your attention to a place where I saw flooding (the bathtub effect?) occur recently on the Berry Street sidewalk at Fifth Street during the bomb cyclone on the evening of Wednesday, Jan. 31, 2024. There is an open space between 255 Berry and 325 Berry called the Fifth Street Plaza, with the promenade along Mission Creek at one end and Berry Street parallel to it at the other. The ground at the promenade end is higher than the ground at the Berry Street end. On my way to the library around 6:15 PM there was perhaps a couple of inches of rain on the sidewalk. On my way home around 7:45 PM after an exceptionally heavy deluge the sidewalk along this entire intersection was flooded, at least ankle deep, and the bathtub effect extended off the curb perhaps a car width into Berry Street. Please check out the differences in height along the promenade compared to the sidewalk there. The flooding had completely drained by the next morning. There's a single storm drain along this stretch of curb. It was clear of leaves and litter when I checked the next morning, however there was a car parked there with	The Recommended Plan includes interior drainage modifications (such as pumps and storage) to address inland flooding. Detailed design, including design of interior drainage features, would occur during PED.

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			one tire partially covering the drain. I am not sure if the car was parked there the night before. My point is -- If we're talking about the bathtub effect happening as a result of raising ground along the promenade and rain flowing downhill during a heavy deluge during a king tide after a foot or more of sea level rise, be aware that we already have lower lying ground along Berry Street that is getting flooded as it is. MY SUGGESTION: -- DON'T JUST RAISE THE PROMENADE, RAISE THE SIDEWALK ALONG BERRY STREET, OR AT THE BOTTOM OF THE FIFTH STREET PLAZA. About a block away, next to the Sports Courts under the I-280 overpass, in front of the Mission Bay Parks office, you'll see a good example of how a canal is used to capture water in a lower lying ditch between higher banks, all covered in attractive vegetation. That Fifth Street Plaza open space could be redesigned similarly to capture excess rainfall, rather than have it drain downhill and flood the sidewalk. Thank you.	

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-013	1	Public Commenter	I'm a Mission Bay resident. I know of 3 specific low-lying areas within Mission Bay that I'd like to bring to your attention in regard to coastal flooding, sea level rise and heavy storm events. Please look at these areas with regard to resolving flooding and/or standing water in these spots. 1) On the Berry Street sidewalk and several feet off the curb, at the Fifth Street intersection, on the sidewalk end of the Fifth Street Plaza. You'll observe there is higher ground at the promenade end of the green open space, which is at a high point along the Mission Creek Park promenade. Often after a heavy rain, there will be puddles along this stretch of the sidewalk. On the night of Wednesday, Jan. 31, this sidewalk and curb flooded completely following the bomb cyclone storm that evening. The sidewalk was under almost a foot of water from the end of the 200 block of Berry Street all the way to the start of the 300 block of Berry Street -- the entire width of the Fifth Street intersection. I would like engineers to take a look at this with an eye toward containing storm water within the green open space, so that it doesn't flood the sidewalk or street. In addition to sidewalk and curb flooding, there's housing on either side of the green open space. There are homes along the sides of both buildings that face that little park. I'd like to see any re-engineering of this space be done in a way where those homes don't flood either.	See response to Submission # DIFR/EIS-O-005, Comment #1

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			2) Mission Bay Commons is a larger park that runs between Terry A. Francois Blvd and Third Street, in the center of Mission Bay Blvd. North and South. The end at Terry Francois is across the street from the waterfront. On the March 9 Flood Study Tour of the waterfront that I went on, the Port's tour guides pointed this out as a low-lying area that's prone to flooding. Please note that there is housing across the street from Mission Bay Commons on Mission Bay Blvd. North. Can the park be re-engineered to slope downward toward the center just enough to contain water within the park? 3) Across from the Mission Creek Park Pavilion at 290 Channel Street, at the end of a parking lot, there's a very low-lying spot where storm water accumulates and doesn't drain. It's in very close proximity to Mission Creek. There is potential for flooding here.	
DIFR/EIS-O-014	2	Public Commenter	the Marina Green MUST remain free of further building of docks for wealthy people with boats. Repair Gas House don't further degrade the magnificent view from Marina Green by building more docks.	See Master Response #10 The Marina Green area is outside of the study area. There are currently no plans to build additional docks or repair the Gas House in the Marina Green area.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-016	4	Public Commenter	San Francisco's cultural heritage is connected to water. Consider Aquatic Park as part of your study area. While it is managed by the NPS (federal), the park and its assets were created over generations by San Franciscans who value access to the Bay-- for sport as well as for health and wellness. Let's be sure we plan for the future of this precious place, which is vulnerable to sea level rise. All the plans around Aquatic Park seem to assume that Muni Pier will be rebuilt, but no one is planning to take on that project. If we're investing in the northern waterfront, the city needs to assert the importance of that piece of marine infrastructure, even if the city no longer "owns" it. It's part of our history. Let's sure we bring that our heritage into the city's future.	Preservation and adaptation of Aquatic Park and Municipal Pier are outside the scope of this study. If the Aquatic Park is within the APE determined by the cultural resources investigations (impacted by vibration, noise, air pollution, viewshed changes from location) then it would be evaluated and mitigated for under Section 106 of the NHPA.
DIFR/EIS-O-017	1	Public Commenter	It will be important to have outreach and support planning for property owners in the impacted area. Specifically, properties such as the Ferry Building and other commercial buildings adjacent could be forced to close for months and years and BOMA and its members are not clear on what the planned support for them during that time would be. Closure could cause the inability for tenants to operate and pay rent. It would be great to have insight into how local or federal assistance could help mitigate that impact and lost revenue. While BOMA is supportive of undertaking these efforts our members remain confused about who would ultimately be responsible for the displacement of hundreds of tenants.	Appendix F, Real Estate, identifies that properties may require relocation assistance and details available assistance benefits programs and applicable laws.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-020	1	Public Commenter	I strongly encourage the Port and other agencies working on the waterfront resilience program to fully pedestrianize the Embarcadero. Converting the current car-centric Embarcadero into a promenade for pedestrians, bicyclists, transit users, and small businesses would be transformative for our city. The investments and disruptions described in the Draft Plan add up to a generational opportunity for San Francisco to reconsider its relationship to not only our waterfront but also our climate as a whole. If we were designing our city from scratch today, I can't imagine we would reserve miles of city-owned waterfront for cars – especially when cars are one of San Francisco's primary contributors to the greenhouse gases that threaten us all (transportation represents 44% of our total emissions, as of 2020). It would be self-defeating to spend billions of dollars shoring up a road against rising seas when that road itself is helping cause the problem. As we adapt our city to our changing climate, we must take advantage of every chance we get to encourage walking, biking, and public transit over wasteful and polluting private vehicles. San Francisco has a long and proud history of reclaiming car spaces for the general public. Patricia's Green and JFK Drive were once reserved for cars, and the Panhandle was threatened by a proposed highway. The Embarcadero too was once a freeway, until decades of activism and a major earthquake transformed it into a multimodal roadway with a sidewalk. But	During planning for the project, maintaining pedestrian access along the Embarcadero has been incorporated throughout and the Recommended Plan includes elements to protect pedestrian access from flooding and preserve pedestrian movement. Converting the roadway along the Embarcadero is beyond the purpose and need of this project which is focused on protection from coastal flooding.

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Submission #	Comment #	Name/Organization	Comment text	Response
			speeding cars cannot coexist with playing children, gawking tourists, appealing street vendors, and the many other users of public space – we must complete the evolution begun years ago and remove cars altogether. The Draft Plan mentions a design process for the roadway configuration and the potential for new waterfront open space. Please include pedestrianization in those plans. Rarely do we get such a chance to live up to our ideals as a transit-first, innovative, equitable, world-class city. An Embarcadero Promenade would be a historic gift to the city and a shining capstone for this crucial waterfront resilience work.	
DIFR/EIS-O-028	1	Public Commenter	The Embarcadero Historic District is a national treasure. The Reach 2 Alternative with seismically stable flood defenses, raised historic bulkhead buildings, and large footprint for adaptation is an excellent solution, however, as proposed it leaves out important areas of the District. The important stretch from Pier 29 to Pier 35 is left out entirely (Reach 1 non-structural) and the stretch from Pier 24.5 to Pier 40 leaves the bulkheads at risk with flood defenses awkwardly placed in the promenade that will block access and create visual impact. Please consider extending the reach 2 solution to both areas which will preserve the entirety of the Historic District.	Detailed design, including the configuration of the Embarcadero roadway, will occur during PED. The measures and defense selected for each reach were evaluated following criteria to reduce risk. Additional information can be found in the final IFR/EIS, and appendices A and B.

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-029	1	Public Commenter	Please extend the Reach 2 treatment, which ends at Pier 27, down to North Point St at Pier 35. There is important wastewater infrastructure in that stretch and the main street connection of Bay to Embarcadero. This critical area should be protected from flooding and earthquakes that can damage the seawall causing major Citywide consequences. It seems like a major oversight to leave this stretch out.	See response to Submission # DIFR/EIS-O-028, Comment #1
DIFR/EIS-V-002	1	Public Commenter	I believe the I-80 FWY connecting the Bay Bridge to 280 should be replaced with an underground tunnel. Flood water coming into the city could be directed into underground what be a highway tunnel closed off in that moment for stormwater. This would benefit us because we have decreased noise and the pollution of the highway through one of the densest parts of the city that has the least park access of any neighborhood in the city.	Although a tunnel is outside the scope of this study, the USACE considered key engineering aspects if implemented in this area. Specifically, the USACE envision added life-safety risks posed during short-term events, capacity limitations related to the tunnel's potential short length, and the prohibitive costs given the small drainage area.
DIFR/EIS-V-007	1	Public Commenter	There're concerns regarding district 10. The flooding that comes in and through our expanding system that collects most of SF's bio waste. When there is flooding, a lot of our sewage systems spit up into the streets and we have standing water systems. It's not an active system that's actually made for waste, it's there for months. Standing water is a source where you can contract diseases, so this all will impact humans.	The project addresses reducing risk from potential flooding in the study area. The project seeks to accommodate the existing sewer systems, which can be affected by rising sea levels. As described in Section 5 of the Main Report, the Recommended Plan would include coordination with SFPUC, Public Works, and other stakeholders on changes to the combined sewer system, expanded green corridors, and other features to reduce inland flood risk exacerbated by the coastal flood defense structures.

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-V-016	2	Public Commenter	The cost of the action was est at \$23 Billion. If we assume there's a 50% chance of that 7 FT mark happening, then the est loss is half that. So that's abt \$12 billions and we're talking abt a price tag of \$13.5 billion. From a financial perspective, it doesn't really raise that merit of expense.	The final IFR/EIS provides discussion of how costs were developed for alternative plans, as well as descriptions of how risks were evaluated to select the measures incorporated into the Recommended Plan.
DIFR/EIS-V-017	1	Public Commenter	I understand the cost to do the entire Bay Area, to build a berm, is approx. \$110 billion. Another option I think would be good to look at carefully is to install an operable dam across the Golden Gate that would be down at low tide and mid tide to allow shipping and fish to go back and forth. But it would rise on high tide and that would serve the entire bay and it could be done for apprc \$40 billion.	See Response to Submission # DIFR/EIS-E-001, Comment #1
DIFR/EIS-CC-010	1	Public Commenter	I-80 should be buried between 8th and 2nd st: this would divert floodwater, create park space in the SOMA neighborhood which is in need of central green space, and could decrease noise which is significant in the area.	See response to Submission # DIFR/EIS-V-002, Comment # 1.
DIFR/EIS-CC-011	2	Public Commenter	Fisherman's wharf, although not a priority, should benefit from carefully nature based flood mitigation as well. It could host kelp and other macro algae in the backwater.	See Master Response #4 This would not meet the purpose and need of the project as described in the final IFR/EIS, section 1.7. Appendix I describes natural and nature-based features evaluated and selection criteria.

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-CC-023	1	Public Commenter	It's essential that this plan incorporate the recommendation of the CA Ocean Protection Council SLR Guidance related to groundwater rise and seawater intrusion. Of specific concerns: Contaminants in the subsurface which will be mobilized by rising sea-level & groundwater... and that socially vulnerable comms are disproportionately exposed to this risk.	See Master Responses #1, #5, and #7
DIFR/EIS-CC-025	1	Public Commenter	I urge to connect the efforts for the rest of the bay outside of the port authority area to protect all of the residents. If needed, please connect to the falls at Candlestick State Park to help with flooding. The flooding beyond the port authority area is a problem and currently impacts our access to the bay.	See Master Response #10
DIFR/EIS-CC-027	1	Public Commenter	Old Dutch winds pumps, equipped with Archimeters Screw can efficiently pump vast amounts of water. Their estimated cost of 1.5 to 2 million \$ per pump aligns with the city's budget.	Detailed design, including design of interior drainage features, will occur during PED.
DIFR/EIS-CC-028	1	Public Commenter	Please make this project power resilient. PGE is not reliable and has outdated equipment. Having this project include independent, resilient power is very important for it to be successful.	See Master Response #10
DIFR/EIS-CC-029	1	Public Commenter	The Aquarium is being transformed into a climate museum. There's no mention of this in the draft plan or website. It will impact (15?) million visitors with a (2.2 B?) economic impact on the embarcadero.	This is not applicable to the current flood study.

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-018	2	Public Commenter	1) **Nature-based solutions: An example that I strongly support should be living shorelines at Heron's Head Park and also at Pier 94. The native oyster project is praiseworthy and should be expanded. This could be a forward-thinking model for additional Port areas, such as Warm Water Cove, Agua Vista Park and China Basin. Possibly also for Yosemite Slough. 2) You can and should consider this tough challenge as an opportunity to bring more nature into our city's waterfront areas. People need green spaces and good nature access close to where they live; urban wildlife need connected habitat areas, and the reconfiguring that is inevitable with such a plan can be used to welcome and incorporate more natural features, more green spaces and connect some already existing green spaces.	See Master Response #4 A range of natural and nature-based features were evaluated for incorporation into project features. Appendix I provides additional details on this process.
DIFR/EIS-O-018	8	Public Commenter	Folsom Stormwater Improvement: An example of a SF project that SHOULD make use of Nature-based solutions is the Folsom Stormwater Improvement Project. This SHOULD be connected to the Port; waterfront/sea level rise plan, although at present I believe there is no connection. Separate, siloed projects like this in an era of sea level rise could be doomed. Also, there is frustration about the proposed solution from the SFPUC, which is a massive and costly tunneling system. It would be much preferable ecologically to leave the watercourse open and natural--a real opportunity to get some	See Master Responses #4 and #10

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
			ore nature in our city; and also to connect it to the port's sea level rise work	
DIFR/EIS-E-004	1	Public Commenter	Climate risk and sea-level rise necessitate fortification of infrastructure along coasts. Marine construction can be modified with ecological concrete, increasing biodiversity, carbon capture, water quality, and ecosystem services. This benefits economics and the nation's Blue Economy. Ecological design alternatives should be integrated into marine infrastructure projects to maximize habitat enhancement. Nature-based design elements increase species settlement, richness, and abundance, while reducing maintenance and structural lifespan. Ecological concrete, which includes recycled materials, supports environmental regulations and reduces greenhouse gas emissions compared to traditional concrete. The Millbrae and Burlingame Shoreline Area Protection and Enhancement Project aims to minimize negative impacts and create marine habitat opportunities by constructing concrete materials from ecological concrete. This will create a bioprotection living layer, increase ecosystem services, and align with existing carbon goals and nature-inclusive frameworks, including future climate action strategies.	See Master Response #4
DIFR/EIS-E-010	1	Public Commenter	We would like to see protection for this plan expanded to the Bay View district.	See Master Responses #7 and #10

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-013	1	Lee Huo (Metropolitan Transportation Commission Bay Trail)	The entirety of the Study area encompasses the adopted Bay Trail alignment along this portion of the San Francisco Waterfront. Much of the Bay Trail alignment is existing and well loved and well-used in the Study area. Given the importance of the Bay Trail as both an active transportation commute corridor and recreational attraction along San Francisco's waterfront, any future waterfront resilience work must maintain the Bay and shoreline experience of the Bay Trail along San Francisco's waterfront.	See Master Response #8
DIFR/EIS-E-013	2	Lee Huo (Metropolitan Transportation Commission Bay Trail)	The vision of the Bay Trail is also premised on being a continuous shoreline trail that encircles the entirety of San Francisco Bay. A such, any future waterfront resilience work must ensure that the Bay Trail along San Francisco's waterfront maintains its connectivity and continuity.	See Master Response #8
DIFR/EIS-E-013	3	Lee Huo (Metropolitan Transportation Commission Bay Trail)	The section of Bay Trail in the Study area is popular with both local residents and visitors that walk, run, bike, and roll along the Bay Trail. At peak use, the Bay Trail in the Study has become congested resulting in conflicts between different user groups. Any waterfront resilience work proposed in the Study area must re-envision and design the Bay Trail to have the width and capacity to accommodate the diverse users of the Bay Trail in the Study area. Ideally, the Bay Trail would be re-envisioned to create different spaces for different user groups including one for pedestrians, one for slow-wheeled users, and another for fast-wheeled users. The width and capacity of the re-envisioned Bay Trail should also consider the potential	See Master Response #8

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
			future usage levels along San Francisco's waterfront especially after the entire Bay Trail system is completed.	
DIFR/EIS-E-016	2	Public Commenter	The plan should connect and improve paths along Islais Creek Municipality Park and Islais Creek Promenade to the 3rd St bridge, providing high-quality pedestrian and bike paths, utilizing nature-based protections.	See Master Response #8
DIFR/EIS-E-016	3	Public Commenter	Along with the planned sea walls and ground improvements along the waterfront to the north of Islais Creek (Pier 80, Powerplant, and Pier 70), the project should build pedestrian and bike paths along that stretch of waterfront, providing a continuous bay trail waterfront path from downtown to Cargo Way.	See Master Response #8
DIFR/EIS-E-019	1	Vika Sirova (National Park Service)	The NPS, National Trails Office (NTO) previously commented on the San Francisco Waterfront Coastal Flood Study due to the project planning area including portions of both the Pony Express National Historic Trail (NHT) and the Butterfield Overland NHT. The DEIS does not include an analysis of impacts to these resources. National Historic Trails are congressionally designated resources protected under the National Trails System Act of 1968. Impacts of federal projects to these specially designated national resources need to be analyzed as part of the National Environmental Protection Act process. The Department recommends that the DEIS consider both the Pony Express NHT and Butterfield Overland NHT in its analysis. If the Pony Express and	See Master Response #6

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
			Butterfield Overland NHTs have been considered but determined to lie outside the scope of the project, we suggest that the DEIS describe this conclusion and the reasoning behind it.	

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-033	1	Public Commenter	Sea walls, designed to protect coastal areas from erosion and flooding, can have significant environmental consequences. Land loss in the Mississippi delta, channelization of Mission Creek, and the loss of wetlands in San Francisco Bay have been examples of these consequences. Habitat disruption, such as the loss of tidal marsh and bay wildlife habitats, can negatively impact biodiversity. Sea walls can also alter wave and tide patterns, affecting coastal dynamics and sediment transport. They can also restrict human access, limiting recreational opportunities and impacting tourism. Water quality effects from construction and maintenance can be detrimental, and sea walls can act as barriers to species movement, leading to population declines and ecosystem damage. They can also alter the visual aesthetics of coastal areas, exacerbate local erosion, and create long-term adaptation challenges. Therefore, relying solely on sea walls for coastal protection may not be sustainable in the face of rising sea levels and climate change.	See Master Response #2 The potential adverse effects of flood risk measures were evaluated in the final IFR/EIS and additional details can be found in sub-appendix D.1 for the respective resources.

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-033	2	Public Commenter	The Islais Creek area in San Francisco presents an opportunity to correct past environmental and social wrongs. By removing all infrastructure along the creek, the west of the bridge could be considered for back bay and tidal marsh wetlands. This would capture sedimentation, attract wildlife, and improve biodiversity. Native wetland plants, such as Grindelia, pickle weed, salt grass, marsh rosemary, and California Sea Lavender, could be reintroduced. This would filter water, prevent erosion, and enhance biodiversity. The waterfront flood plan could protect historical infrastructure, expand biodiversity, and provide greater access to nature for the local community. Prioritizing longer-term, nature-based solutions is crucial for the city's well-being and regaining lost biodiversity.	See Master Response #4
DIFR/EIS-E-041	2	Public Commenter	Mission Creek Harbor emphasizes the importance of water-based recreation as a social asset, spanning various categories in the Draft Plan's framework. The plan aims to maintain and create new connections with the waterfront, which has seen increased small craft activity in Mission Creek, McCovey Cove, and the Bay over the past decade. This trend is consistent with increased bay engagement made possible by public access in Crane Cove Park. Mission Creek Harbor supports the plan for prioritizing the maintenance and increase of this type of engagement with the Bay, recognizing its significant social asset.	See Master Response #8

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-042	3	Francisco Dóñez (US Environmental Protection Agency)	The integration of Natural and Nature-Based Features into all alternatives to reduce flood risk and protect aquatic resources	See Master Response #4 Appendix I details the process used to evaluate a range of natural and nature-based features.
DIFR/EIS-E-045	1	Public Commenter	The Plan conflates Resiliency and Sea Level Rise as if they were the same thing. Resiliency concerns the performance of the piers and seawall in a large seismic event, while Sea Level Rise concerns how to adapt existing structures to rising sea levels in the future. The piers have a thick layer of Young Bay Mud (YBM) underlying the adjacent seawall, which is not optimal for stabilizing soil mass. Resiliency solutions include driving piles through the building to stabilize the structure and stiffen the underlying strata, but this would impact the Embarcadero. The Port, City, SF Piers, and tenants will be significantly impacted by the chosen method. The California Ocean Protection Council projects minimal Sea Level Rise until around 2050. The Plan proposes the most impactful approach to Reach 2, with interim and stop-gap measures, such as installing short walls along exterior aprons, being studied and permitted. Long-term upgrades will require increasing the elevation of the main wharf deck, impacting existing tenants and users of the Piers Project.	See Master Response #2. Appendix G, Monitoring and Adaptation Plan, recognizes that long-term planning efforts will have the flexibility to develop second actions consistent with future conditions, values, and fiscal constraints.

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-048	1	Public Commenter	SF Heritage is urging early engagement with the National Park Service (NPS) to ensure compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and the integrity of the Embarcadero National Historic District. They also urge the retention of eligibility for public-private partnerships to claim federal historic tax credits, as per the National Park Service Guidelines on Flood Adaptation for Rehabilitating Historic Properties. Consultation with NPS on Part 1 approvals for tax credit projects should precede final flood control plans.	See Master Response #6
DIFR/EIS-E-051	6	Public Commenter	A bicycle or bicycle and pedestrian bridge over Islais Creek immediately east of the current Illinois Street bridge should be evaluated, as it would fix the access deficiencies of the current Illinois Street bridge and provide a sustainable transportation access to the Bayview for the duration of the 3rd Street Bridge replacement.	See Master Response #8
DIFR/EIS-E-056	1	Public Commenter	The boundaries of this plan are a result of systemic racism and disregard the need for robust planning all along the shoreline. Excluding the shoreline South of Heron Head's Park, which includes Bayview Hunters Point and the Hunters Point Naval Shipyard Superfund site, is a stark example of environmental racism and injustice. We need to prepare the entire shoreline of San Francisco, not just a portion of it. Impacted communities, especially Frontline communities facing environmental justice harms must be included in the continued development of this study and in any decision making.	See Master Response #7

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-E-056	2	Public Commenter	The sea level rise projections used by the Draft Flood Study plans are not adequate for the level of risk projected in recent studies and reports. There must also be explicit and aggressive groundwater rise projections used in the Draft Flood Study.	See Master Response #1
DIFR/EIS-E-056	4	Public Commenter	The Draft Flood Study must address the issue of hazardous waste, both unremediated or improperly remediated with a cap, in much more depth to ensure USACE will be able to provide funding.	See Master Response #5
DIFR/EIS-E-058	6	Public Commenter	Impacted communities, especially Frontline communities facing the most serious environmental justice harms posed by SLR and climate disruption, must be included in decision making, and the Plan must provide readers with actual methods and tools for this inclusion, and for environmental, social, and economic action to address impacts.	See Master Response #7
DIFR/EIS-O-007	1	Public Commenter	This project seems a great opportunity to daylight all of Islais Creek and create an extended waterfront park. At minimum, create open space on both sides of the section of Islais Creek from the freeway offramp to the Bay. As a regular Bay Trail walker and visitor to Heron's Head Park, I see the benefits environmentally and socially of having waterfront parks. While I understand some commercial property will need to be purchased to make this happen, this project seems a good opportunity to make this improvement.	See Master Response #8

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-009	2	Public Commenter	Adding living seawalls should be a non-negotiable component. This component provides a habitat for the many sea creatures we often neglect. A habitat that we have taken away by building flood walls. Adding living seawalls to flood walls would make these walls beneficial to both the humans and sea organisms. Furthermore, adding living berms as a component to this project would be crucial. Similar to restoring the wetlands, they are both beneficial to flood prevention and animal and plant conservation. These berms would be used just like flood walls but would be more eco-friendly. Additionally, unlike a flood wall, living berms are pleasant to look at. They add to the surrounding environment but also have a purpose. A great example of this is the Crissy Field berms. They protect the surrounding area from getting flooded, but at the same time, add texture to otherwise flat field.	See Master Response #4
DIFR/EIS-O-010	1	Public Commenter	Understand the 7.5 mile S.F. Port Authority does not include the Bay Shoreline south of Herons Point. The sea rise barriers planned for in the Port jurisdiction will result in flooding of the Bayview Hunters Point community at high tide. Consideration of this low income community with land fill and toxic waste sites must be considered.	See Master Response #7
DIFR/EIS-O-010	2	Public Commenter	Current science concludes that sea level rise will affect groundwater. The plan must consider up to date science.	See Master Response #1

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-011	1	Public Commenter	I am concerned about SLR for the entire bay and the lack of coordination between all waterfront stakeholders and propose that the State of California (maybe more versatile than the Army Corps) establish a lead agency to oversee and coordinate all strategies.	See Master Response #3
DIFR/EIS-O-011	3	Public Commenter	I would like to see more information on the effects of cumulative SLR solutions (all waterfront stakeholders) on currents and environment of the entire bay to help guide decisionmakers as to extent and types of SLR mitigation versus the public's goals and expectations for the character of a diminished area of water.	See Master Response #1
DIFR/EIS-O-012	1	Public Commenter	Nature-based solutions should be incorporated into all coastal infrastructure projects in order to uplift biodiversity and increase shoreline resilience. Ecological concrete is a type of nature-based solution that serves as an alternative to traditional concrete. The material composition and design of ecological concrete encourages biodiversity, species richness, and ecosystem services such as carbon sequestration and water filtration.	See Master Response #4
DIFR/EIS-O-014	1	Public Commenter	I swim in SF Bay, at Aquatic Park and along Crissy Field among other places. It is IMPERATIVE that access to those venues remain open AND that at both venues there is access for those in wheel chairs. At the moment there is not. Ramps needs to be built and walkways that are wheelchair accessible.	See Master Response #8

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-015	1	Public Commenter	The club is located at the westernmost reach of the plan area and identified in the plan as a historic building in need of flood protection. We ask that the waterfront resilience plan expand westward to include Aquatic Park and its infrastructural pier (a.k.a. Municipal Pier). While not City or Port property, Municipal Pier – an extension of Van Ness Avenue into the Bay -- provides essential protection, not only to the clubs but to other irreplaceable civic assets of San Francisco's heritage namely the WPA-era Maritime Museum, Sea Scouts and the park itself.	See Master Response #8
DIFR/EIS-O-015	2	Public Commenter	The club's open water sports occur on the Bay, along the entire city front, and the plan's proposed changes include raising the seawall as well as introducing natural "green infrastructure" forms of flood protection, like wetlands. Our ask is that modifications to the city's waterfront anticipate and accommodate water access for human powered recreation—places where swimmers and rowers can safely enter and exit.	See Master Response #8
DIFR/EIS-O-015	3	Public Commenter	The plan anticipates a reworking of the city's water infrastructure – including storm water and sewage outflows to the bay. Our ask is that the plan mitigate the impacts on human powered open water recreation, this includes both the water treatment and locations of outflows into the Bay. Water quality should be maintained to sustain the Bay's native flora and fauna, as well as accommodate safe human swimming. Between the two historic clubs, there are more than 4,000 members, and	See Master Response #8

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
			the open water recreation community is much larger.	
DIFR/EIS-O-016	1	Public Commenter	Recreational uses of the waterfront are important to the public and this includes in-water activities that span the length of the city front, such as open water rowing and swimming. Safe and accessible entry and exit points for swimmers and rowers (including their vessels) should be planned for along the waterfront. You may not see open water swimmers or rowers, but there are thousands of us. Really	See Master Response #8
DIFR/EIS-O-016	2	Public Commenter	Water quality - keep the water quality safe for human swimming, especially as you reconsider the location of utilities like stormwater and sewage / treatment infrastructure. Outfalls should be far away from known swimming areas.	See Master Response #8
DIFR/EIS-O-019	1	Public Commenter	Storm surges in San Francisco could reach 7ft by 2100 according to modelling. We need to ensure when building this new development we use carbon neutral concrete and incorporate nature inclusive design features following the guidelines in BSI institute PAS1401.	See Master Response #4
DIFR/EIS-O-021	1	Public Commenter	The clubs in Aquatic Park are historic buildings in need of flood protection, as is Aquatic Park where many others recreate in on the water. The changes proposed include raising the seawall as well as introducing natural forms of flood protection, like wetlands. Any such modifications must accommodate water access for the people of San Francisco for swimming and boating.	See Master Response #8

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-O-021	2	Public Commenter	Immense progress has been made in the last 50 years regarding Bay water quality. This should not be rolled back due to failure to adequately deal with storm water and sewage outflows to the Bay. Specific planning must be incorporated along with treatment facilities to protect the health of the Bay and the living creatures that inhabit the Bay, including recreational users. Traditional tidal flows and currents, if altered, need to be taken into consideration so as not to create hazards for Bay users, or render areas unusable due to dangerous currents, back eddies, stagnant pools conducive to the growth of toxic algae blooms, etc.	See Master Response #5
DIFR/EIS-O-022	1	Public Commenter	As part of this plan, the city should make the Embarcadero a car-free pedestrian zone. As a former resident of the city and now frequent visitor, I have always thought that having a six-lane road next to some of San Francisco's most iconic sights was a huge flaw of urban design. As with the car-free stretch of JFK in Golden Gate Park, making the Embarcadero a pedestrian zone would turn it into much more of a destination for pedestrians and cyclists.	See Master Response #8
DIFR/EIS-O-025	1	Public Commenter	The embarcadero should be made a car free promenade similar to JFK in golden gate. Doing so will not only bring more life and value to a beautiful location, it will encourage more use of public transit, reduce harmful emissions, and aid our traffic fatalities goals. San Francisco cannot keep pretending to care about	See Master Response #8

San Francisco Waterfront Coastal Flood Study

Submission #	Comment #	Name/Organization	Comment text	Response
			pedestrian health and safety while it promotes a car dependent lifestyle.	
DIFR/EIS-O-026	1	Public Commenter	I'd like to encourage acting on the opportunity this work presents to make the Embarcadero more pedestrian-friendly during this process by more permanently closing the road to cars, similar to the successful slow streets that were adopted during the pandemic and removing cars from the JFK promenade which received voter support back in 2022. It seems like there could be positive environmental impacts of reducing carbon emissions by promoting walkability of these areas as well as benefits to more easily make improvements over time to the barriers and defenses covered in the plan without requiring shutting down existing traffic patterns every time work is needed.	See Master Response #8
DIFR/EIS-V-003	1	Public Commenter	I would like the plan to think abt better transportation infrastructure for bikes and ppl. Specifically, worried abt the Islais Creek crossing of IL St which is a terrible bridge right now for pedestrians, bikes, and trucks. Putting up flood walls seems like a bad idea when we need a whole new bridge.	See Master Response #8
DIFR/EIS-V-004	1	Public Commenter	I feel it is important for the USACE to coordinate with what the Port is doing with commercial development.	See Master Response #3

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-V-006	1	Linda Fadeke Richardson (TIDA Infrastructure and Transportation Committee)	The southern waterfront, Bayview, is the most vulnerable of any community in SF. There's a long history of EJ and the entire plan was informed with the help of the Port of San Fran and all the city agencies. We want this plan moved forward to be in front of congress by 2026. The entire restoration of Bayview and the south waterfront is encumbered on the particular. Without it, this community is left with nothing.	See Master Response #7
DIFR/EIS-V-012	1	Public Commenter	When I look at the focus points and everything else, they're all areas of shortsightedness of past wrongdoings. Landfills from the 1906 fire, Mission Creek, Mission Bay, etc. We would like more equity.	See Master Response #7
DIFR/EIS-V-013	1	Public Commenter	My concern is this initiative only covers SFO Port Authority Shoreline. It doesn't rly cover the rest of the Bayview shoreline. Especially for the rest of the bay here in Bayview, our shoreline by Candlestick State Park.	See Master Response #7
DIFR/EIS-V-016	1	Public Commenter	The exponential nature of your SLR curve made me feel that if we mitigated to 7 FT by 2100, it will be futile to mitigate any further SLR. Does this 100 year mark make any sense then?	See Master Response #1
DIFR/EIS-V-019	1	Public Commenter	There's still uncertainty regarding how high to build whether 3 and a half , one and a half, or seven feet. This seems to be a critical issue that we want decided pretty early on because it would have such a large impact on the coast.	See Master Response #1
DIFR/EIS-CC-007	1	Public Commenter	Prioritize bike and pedestrian infrastructure improvement in the plan... specifically, IL Street needs protected bike lanes and the Islais Creek Bridge should be replaced or a bike span should be added here.	See Master Response #8

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Submission #	Comment #	Name/Organization	Comment text	Response
DIFR/EIS-CC-009	4	Public Commenter	Wastewater problem of overflows in storms which should be rerouted from creek to the bay, especially as storms become more intense.	See Master Response #5
DIFR/EIS-CC-013	1	Public Commenter	There's an opportunity to add native oyster restoration in nature based berm and have areas Reach 3 and 4	See Master Response #4
DIFR/EIS-CC-031	1	Public Commenter	I would like more nature based features in the SFWFS. Specifically fisherman's wharf and the embarcadero. This more have benefits: increased community engagement, increased living conditions, ppl being proud to live in a visually appealing place, and more visitors which would result in an improved economy. This would also be better for the environment, stormwater management, and enhance biodiversity. PPL would also be more likely to fund/support if a park is built next to them instead of a wall. Please consider more natural features like berms, living sea walls, gardens, pocket parks, and rooftop gardens.	See Master Response #4

SAN FRANCISCO WATERFRONT COASTAL FLOOD STUDY, CALIFORNIA

APPENDIX H – ATTACHMENT 1 PUBLIC ENGAGEMENT FROM 2020 (EARLY SCOPING) THROUGH 2023 (SCOPING)

JULY 2026

USACE TULSA DISTRICT | THE PORT OF SAN FRANCISCO



**US Army Corps
of Engineers** 



Notice of Early Scoping Period

SUPPLEMENTARY INFORMATION: DFC is submitting its Application for DPA–DFC Loan Program (DFC–014) to OMB for review and approval. This collection was previously granted an emergency clearance by OMB on June 5, 2020. The emergency clearance expires on December 31, 2020 and DFC is now seeking a regular clearance.

Summary Form Under Review

Title of Collection: Application for DPA–DFC Loan Program.

Type of Review: Extension without change of a currently approved information collection.

Agency Form Number: DFC–014.

OMB Form Number: 3015–0013.

Frequency: Once per investor per project.

Affected Public: Business or other for-profit; not-for-profit institutions; individuals.

Total Estimated Number of Annual Number of Respondents: 100.

Estimated Time Per Respondent: 1 hour.

Total Estimated Number of Annual Burden Hours: 100 hours.

Abstract: DFC–014 Application for DFC–DPA Loan Program is the principal document to be used by the U.S. International Development Finance Corporation (“DFC”) to determine if the proposed transaction is eligible for DFC–DPA financing and whether it meets required underwriting criteria.

Dated: August 17, 2020.

Nichole Skoyles,

Administrative Counsel, Office of the General Counsel.

[FR Doc. 2020–18297 Filed 8–19–20; 8:45 am]

BILLING CODE 3210–01–P

DEPARTMENT OF DEFENSE

Department of the Army, Army Corps of Engineers

Notice of Early Scoping for the San Francisco Waterfront Flood Resiliency Study National Environmental Policy Act Compliance

AGENCY: Department of the Army, U.S. Army Corps of Engineers; Defense (DOD).

ACTION: Notice of Early Scoping.

SUMMARY: The San Francisco District, U.S. Army Corps of Engineers (USACE), intends to prepare a feasibility study integrated with an environmental assessment (EA) or environmental impact statement (EIS) to evaluate coastal storm and flood risk management alternatives along 7.5 miles of the San Francisco Waterfront, from

Aquatic Park to Herons Head Park, in the City of San Francisco, San Francisco County, California. The Port of San Francisco is the non-federal partner for the study. USACE will conduct early scoping to solicit public participation and input to inform the environmental analyses and to assist with determining the appropriate level of NEPA documentation required for the study.

DATES: USACE requests that written comments regarding the scope of the environmental analysis and alternatives that should be considered as part of the study and NEPA analysis should be received by October 21, 2020.

ADDRESSES: Written scoping comments or requests to be added to the mailing list can be sent by email: SFWFRS@usace.army.mil, or by mail: Ms. Anne Baker, 450 Golden Gate Avenue, 4th Floor, San Francisco, California 94102.

FOR FURTHER INFORMATION CONTACT: Ms. Anne Baker via email or mail at (see **ADDRESSES**). Study information will also be posted periodically on the internet at: <https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Projects-A-Z/San-Francisco-Waterfront-Storm-Damage-Reduction/>

For inquiries from the media, please contact the USACE San Francisco District Public Affairs Officer, Mr. Brandon Beach by email: Brandon.A.Beach@usace.army.mil or by telephone: (415) 503–6958.

SUPPLEMENTARY INFORMATION: The San Francisco District, U.S. Army Corps of Engineers (USACE), intends to prepare a feasibility study integrated with an environmental assessment (EA) or environmental impact statement (EIS) to evaluate coastal storm and flood risk management alternatives along 7.5 miles of the San Francisco Waterfront, from Aquatic Park to Herons Head Park, in the City of San Francisco, San Francisco County, California. The Port of San Francisco is the non-federal partner for the study. USACE will conduct early scoping to solicit public participation and input to inform the environmental analyses and to assist with determining the appropriate level of NEPA documentation required for the study.

USACE has not yet determined that an EIS will be necessary for the study, but will conduct the appropriate scoping and public outreach required for the preparation of an EIS, since it is the more stringent process. If at any time during the NEPA analysis USACE determines that there may be the potential for significant, unmitigable effects, then an EIS will be prepared. A formal Notice of Intent (NOI) to prepare an EIS would be filed in the **Federal Register** to initiate the EIS process.

Should an EIS be necessary, written comments submitted during this early scoping period will be considered in development of the EIS. Written public comments in response to a Notice of Intent (NOI) to prepare an EIS would also be accepted and considered. USACE will substitute the public meetings associated with this Notice of Early Scoping for the scoping meetings that would normally occur after the publication of a NOI to prepare an EIS. Additional scoping meetings would therefore not be held, if an NOI to prepare an EIS is released. Written comments, including those on the scope of alternatives and impacts, will still be considered through any formal scoping period initiated by an NOI to prepare an EIS. The district would also seek to ensure that key resources agencies have had an informed opportunity to weigh in on subject proposals.

Please note that the San Francisco Planning Department (Planning Department) is the California Environmental Quality Act (CEQA) lead agency for the study. The Planning Department is conducting CEQA review under a separate process, which is not part of this early scoping effort under NEPA.

1. *Study Authorization.* The San Francisco Waterfront Flood Resiliency Study was originally authorized under Section 110 of the Rivers and Harbors Act of 1950, Public Law 515, 64 Stat. 163. The project was subsequently authorized under Section 142 of the Water Resources Development Act (WRDA) of 1976, Public Law 94–587, 90 Stat. 2917, 2930, as amended by Section 705 of WRDA of 1986, Public Law 99–662, 100 Stat. 4082, 4158. Authority for the NEPA early scoping process is provided by the Council on Environmental Quality (CEQ) Regulations (Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulation, 46 FR 18026, 18030 (March 23, 1981) as amended 1986, see Question 13).

2. *Study Location.* The proposed study area being considered is approximately 7.5 miles, from Aquatic Park to Herons Head Park, in the City of San Francisco, San Francisco County, California. This area of the waterfront is highly urbanized, supporting commercial, residential, recreation, tourism, and open space land uses. The area contains a complex mix of piers, structures, and seawall—many of which are considered historic. A study area map can be found online at: <https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Projects-A-Z/San-Francisco-Waterfront-Storm-Damage-Reduction/>.

3. *NEPA Purpose and Need.* The purpose of the study is to determine strategies to manage the risk of impacts from future flooding in the project area, including public health and safety. Coastal storm risk management measures would seek to reduce effects to important building, utility, and transportation infrastructure and resources, as well as social and economic resources, including recreation facilities. During certain conditions such as storms, king tides, or El Niño events, water from the San Francisco Bay periodically overtops sections of the seawall along the San Francisco Embarcadero waterfront, resulting in flooding of low-lying areas. Sea level rise is expected to increase risk of flooding in the future. Flooding could result in limited or no access to the Embarcadero, Ferry Building and terminals, and portions of downtown San Francisco. Potential flooding of these areas could adversely impact building infrastructure, including historic buildings; transportation and transportation infrastructure, including the BART, Muni, and the Embarcadero roadway; recreation and tourism; government resources; local businesses and economy; and public health and safety. Therefore, with the existing and increasing risk as sea levels continue to rise there is a need to manage the risk of flooding in the study area.

4. *Alternatives.* Alternative formulation is in the early stages. USACE and the Port of San Francisco are developing preliminary alternatives that combine a broad suite of flood risk management structural, non-structural, and natural and nature-based measures in addition to a No Action Alternative. Structural measures include options such as construction of new levees and floodwalls, or improvements to the existing seawall to address coastal flooding along the waterfront. Nonstructural measures include options such as raising critical infrastructure, floodproofing structures, recommending land use or zoning restrictions, or enhancing flood warning systems. Natural and nature-based features include measures like horizontal levees, ecological seawalls or “ecotones” that reduce flood risk while improving the environment. USACE and the Port of San Francisco will coordinate with interested stakeholders to further describe and refine the alternatives and/or develop additional alternatives throughout the study process. As alternative formulation progresses, more information will be available on the project website: <https://www.spn.usace.army.mil/Missions/>

Projects-and-Programs/Projects-A-Z/San-Francisco-Waterfront-Storm-Damage-Reduction/.

5. *Scoping Process.*

a. Two virtual public scoping meetings will be held to present an overview of the San Francisco Waterfront Flood Resiliency Study, the USACE alternative formulation process, and the NEPA process. Additionally, these meetings will afford all interested parties an opportunity to comment on the scope of analysis and potential alternatives. The first virtual scoping meeting will be held on September 16, 2020, from 6:00–7:30 p.m. The second virtual scoping meeting will be held on September 17, 2020, from 2:00–3:30 p.m. Information on accessing the virtual public meetings can be found at: <https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Projects-A-Z/San-Francisco-Waterfront-Storm-Damage-Reduction/>.

b. USACE will be soliciting public comments throughout the 60-day scoping period (See Dates and Addresses above).

6. *Availability.* A minimum 30-day public review period will be provided for individuals, interested parties, and agencies to review and comment on the Draft NEPA document. All interested parties are encouraged to respond to this notice and provide a current address if they wish to be notified of the Draft NEPA Document's public circulation. The Draft NEPA Document is scheduled to be available for public review and comment in spring 2022.

PUBLIC DISCLOSURE STATEMENT: USACE believes it is important to inform the public of the environmental review process. To assist the USACE in identifying and considering issues related to the study, comments made during formal scoping and later on the draft NEPA document should be as specific as possible. Reviewers should structure their participation in the environmental review of the proposal so that it alerts USACE to the reviewers' position and concerns. It is very important that those interested in this study participate by the close of the scoping period so that substantive comments and objections are made available to the USACE at a time when we can meaningfully consider them for alternative development and incorporate them into the study, as appropriate.

Paul E. Owen,
Brigadier General, U.S. Army, Commanding.
[FR Doc. 2020-18226 Filed 8-19-20; 8:45 am]

BILLING CODE 3720-58-P

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

Notice of Intent To Prepare an Environmental Impact Statement for construction of the Proposed Delta Conveyance Project, Sacramento, San Joaquin, Contra Costa, and Alameda Counties, CA

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DoD.

ACTION: Notice of Intent.

SUMMARY: The U.S. Army Corps of Engineers Sacramento District (USACE), as the lead agency under the National Environmental Policy Act (NEPA), will prepare an Environmental Impact Statement (EIS) for construction of the Delta Conveyance Project. The California Department of Water Resources (DWR) is the project proponent and will be referred to hereafter as the Applicant. The EIS will analyze the Applicant's proposed action to construct new conveyance facilities in the Sacramento-San Joaquin Delta (Delta) which includes intake facilities on the Sacramento River, tunnel reaches and tunnel shafts, a southern forebay and pumping plant, and south Delta Conveyance facilities that would connect to the existing State Water Project (SWP) infrastructure.

ADDRESSES: U.S. Army Corps of Engineers, Sacramento Regulatory Division, Attn: Mr. Zachary Simmons, 1325 J Street, Room 1350, Sacramento, CA 95814-2922.

FOR FURTHER INFORMATION CONTACT: Questions about the proposed action and EIS can be answered by Mr. Zachary Simmons, at (916) 557-6746, by email at Zachary.M.Simmons@usace.army.mil; or mail at U.S. Army Corps of Engineers, Sacramento Regulatory Division, Attn: Mr. Zachary Simmons, 1325 J Street, Room 1350, Sacramento, CA 95814-2922. Requests to be placed on the electronic or surface mail notification lists should also be sent to this address. For further information or media inquiries, contact Mr. Paul Bruton at (916) 557-5166, or by email at spk-pao@usace.army.mil.

SUPPLEMENTARY INFORMATION: The proposed action requires permission from USACE is required under Section 14 of the Rivers and Harbors Act (RHA). In addition, the proposed work in navigable waters and discharge of dredge or fill material into waters of the U.S. requires authorization from USACE under Section 10 of the RHA of 1899 and Section 404 of the Clean Water Act.

From: [Fiala, Shannon@BCDC](mailto:Fiala,Shannon@BCDC)
To: [SF Waterfront](#)
Subject: [Non-DoD Source] BCDC Comments on the Notice of Early Scoping for the San Francisco Waterfront Flood Resiliency Study
Date: Wednesday, October 21, 2020 6:44:13 PM
Attachments: [image001.png](#)
[USACE EIS BCDC comments 10.20.20.pdf](#)

Attached please find BCDC's comments on the Notice of Early Scoping for the San Francisco Waterfront Flood Resiliency Study.

Best,
Shannon

--

Shannon Fiala (*pronouns: she/her*)
Planning Manager

San Francisco Bay Conservation and Development Commission
375 Beale Street, Suite 510
San Francisco, California 94105

Direct: 415-352-3665

Web: [Blockedwww.bcdc.ca.gov](#)



San Francisco Bay Conservation and Development Commission

375 Beale Street, Suite 510, San Francisco, California 94105 tel 415 352 3600 fax 888 348 5190

State of California | Gavin Newsom – Governor | info@bcdc.ca.gov | www.bcdc.ca.gov

October 21, 2020

Ms. Anne Baker
450 Golden Gate Avenue, 4th Floor
San Francisco, California 94102

SUBJECT: Early Scoping Comments – San Francisco Waterfront Flood Resiliency Study (Document Citation: 85 FR 51419)

Dear Ms. Baker:

Thank you for the opportunity to comment on the preparation by the San Francisco District of the U.S. Army Corps of Engineers (USACE) of a feasibility study integrated with an environmental assessment (EA) or environmental impact statement (EIS) to evaluate coastal storm and flood risk management alternatives along 7.5 miles of the San Francisco Waterfront, from Aquatic Park to Herons Head Park, in the City of San Francisco, San Francisco County, California. The following comments provided by BCDC staff are based on the *San Francisco Bay Plan* (Bay Plan) and the McAteer-Petris Act.

Commission Jurisdiction and Authority. BCDC is responsible for granting or denying permits for any proposed fill (e.g., earth or any other substance or material, including pilings or structures placed on pilings, and floating structures moored for extended periods of time); extraction of materials; or change in use of any water, land, or structure within the Commission's jurisdiction. Generally, BCDC's jurisdiction over San Francisco Bay extends from the Golden Gate to the confluence of the San Joaquin and Sacramento Rivers and includes tidal areas up to mean high tide, including all sloughs, and in marshlands up to five feet above mean sea level; a shoreline band consisting of territory located between the shoreline of the Bay and 100 feet landward and parallel to the shoreline; salt ponds; managed wetlands; and certain waterways that are tributaries to the Bay. The Commission has jurisdiction over the Bay waters and the shoreline areas bayward of The Embarcadero that would be evaluated in the Feasibility Study. For projects that are within the Commission's jurisdiction, permits from BCDC may be required, depending on the nature of the activity. The Commission can grant a permit for a project if it finds that the project is either (1) necessary to the health, safety, and welfare of the public in the entire Bay Area, or (2) is consistent with the provisions of the McAteer-Petris Act and the Bay Plan.

In addition to carrying out its regulatory authority under state law, the federal Coastal Zone Management Act allows the Commission to review federal projects and projects that require federal approval or are supported with federal funds. The Commission carries out its "federal consistency" responsibilities by reviewing federal projects much like it does permit applications. However, the Commission cannot require federal agencies to submit permit applications. Nevertheless, federal agencies and applicants for federal approvals must provide the project

BCDC Comments on the Notice of Early Scoping for the San Francisco Waterfront Flood Resiliency Study National Environmental Policy Act Compliance

details, data and other material to assure that the Commission has the information it needs to evaluate federal projects. The EA and/or EIS should acknowledge and describe the Commission's jurisdiction, permit and federal consistency authority.

Existing Permits. There are a number of existing BCDC permits within the Feasibility Study area. The EA or EIS should discuss the effects, if any, that the potential coastal storm and flood risk management alternatives would have on existing public access or other conditions required in these permits.

Priority Use Areas and BCDC's Seaport Plan. Section 66602 of the McAteer-Petris Act states, in part, that certain water-oriented land uses along the bay shoreline are essential to the public welfare of the Bay Area, including ports and waterfront parks and beaches, and, as such, the San Francisco Bay Plan should make provision for adequate and suitable locations for all these uses. In Section 66611, the Legislature declares "that the Commission shall adopt and file with the Governor and the Legislature a resolution fixing and establishing within the shoreline band the boundaries of the water-oriented priority land uses, as referred to in Section 66602," and that "the Commission may change such boundaries in the manner provided by Section 66652 for San Francisco Bay Plan maps." The Feasibility Study area from Aquatic Park to Herons Head in San Francisco is included on Bay Plan Maps 4 and 5 and it includes several Port Priority Use Areas at China Basin (Piers 48 and 50), Central Basin (Pier 68), and surrounding the Islais Creek Channel (Piers 80, 90, 92, 94, and 96). Any proposals for placing fill, extracting materials, or changing the use of any land, water, or structure within those areas that are designated for Port Priority Use in the Bay Plan must be developed and managed in a manner consistent with applicable policies of the McAteer-Petris Act and the Bay Plan as well as BCDC's Seaport Plan, which is in the process of being updated. The EA or EIS should describe the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Priority Use Areas and the Seaport Plan.

Bay Plan Maps also include Plan Map Policies that are enforceable and have the same authority as the policies in the text of the Bay Plan. Plan Map 4 includes Policy 27, which states at Fisherman's Wharf, "improve and expand commercial fishing support facilities. Enhance public access to and economic value of Fisherman's Wharf area by encouraging development of a public fish market," which is repeated in Plan Map 5 Policy 29. Plan Map 4 also includes Policy 26, regarding the San Francisco Waterfront Special Area Plan, which states "see special area plan for detailed planning guidelines for the shoreline between the east side of Hyde Street Pier and the south side of India Basin," which is repeated in Plan Map 5 Policy 24. Finally, Plan Map 5 Policy 23 states for the Port of San Francisco, "See the Seaport Plan. Some fill may be needed." Finally, Bay Plan Map 4 includes "Commission Suggestion A" for a "possible scenic transit system from Ocean Beach to China Basin." Note that Commission suggestions are not enforceable policies. The EA or EIS should describe the consistency of the potential coastal storm and flood risk management alternatives with the Plan Map policies and suggestions.

BCDC's San Francisco Waterfront Special Area Plan. The McAteer-Petris Act of 1965 provides for the Bay Plan to contain or incorporate by reference "special area plans" (SAP) with more specific findings and policies for portions of the Bay and its shoreline. BCDC developed the San Francisco Waterfront SAP in partnership with the Port and it applies the requirements of the McAteer-Petris Act and the provisions of the Bay Plan to the San Francisco waterfront in greater detail and should be read in conjunction with both the McAteer-Petris Act and the Bay Plan. BCDC first adopted the SAP in 1975. The last comprehensive amendment to the SAP (Bay Plan Amendment 7-99) was adopted in 2000 and it currently contains General Policies pertaining to the area covered by the Special Area Plan and Geographic-Specific Policies for three geographic vicinities, Fisherman's Wharf, the Northeastern Waterfront, and the Southern Waterfront, as well as Plan Maps that delineate priority use areas. Although the San Francisco Waterfront SAP is in the process of being amended, the EA or EIS should describe the consistency of the potential coastal storm and flood risk management alternatives with the San Francisco Waterfront SAP.

Commission Law and Bay Plan Policies Relevant to the Project

1. **Biological Resources.** Protection of biological resources, including wildlife and habitat, is addressed through several sections of the Bay Plan. Fish, Other Aquatic Organisms, and Wildlife Policy No. 1 states "To assure the benefits of fish, other aquatic organisms and wildlife for future generations, to the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased." Additional policies in these Bay Plan sections, and policies in the Subtidal Areas section, provide further requirements on protection of the Bay's natural resources. The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Policies pertaining to Fish, Other Aquatic Organisms, and Wildlife; Tidal Marshes and Tidal Flats; and Subtidal Areas.
2. **Fill for Habitat.** BCDC recently approved several new Bay Plan policies addressing Bay fill for habitat projects. Fish, Other Aquatic Organisms, and Wildlife Policy No. 3 states "In reviewing or approving habitat restoration projects or programs the Commission should be guided by the best available science, including regional goals, and should, where appropriate, provide for a diversity of habitats for associated native aquatic and terrestrial plant and animal species." Additionally, Fish, Other Aquatic Organisms, and Wildlife Policy No. 6 states, in part, that "Allowable fill for habitat projects in the Bay should (a) minimize near term adverse impacts to and loss of existing Bay habitat and native species; (b) provide substantial net benefits for Bay habitats and native species; and (c) be scaled appropriately for the project and necessary sea level rise adaptation measures in accordance with the best available science..." The EA or EIS should address if and how any fill proposed for the potential coastal storm and flood risk management alternatives meets these criteria.
3. **Water Quality.** The policies in the Water Quality section of the Bay Plan require Bay water pollution to be prevented to the greatest extent feasible. New projects are required to be sited, designed, constructed and maintained to prevent or minimize the discharge of

pollutants in the Bay by controlling pollutant sources at the project site, using appropriate construction materials, and applying best management practices. More specifically, Bay Plan policies on water quality state, in part, that “water quality in all parts of the Bay should be maintained at a level that will support and promote the beneficial uses of the Bay as identified in the San Francisco Bay Regional Water Quality Control Board’s *Water Quality Control Plan, San Francisco Basin* and should be protected from all harmful or potentially harmful pollutants.” The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Policies pertaining to Water Quality.

4. **Environmental Justice.** BCDC recently approved several new Bay Plan policies on Environmental Justice and Social Equity. Policy No. 3 of the new Bay Plan Environmental Justice and Social Equity chapter says “[e]quitable, culturally-relevant community outreach and engagement should be conducted by local governments and project applicants to meaningfully involve potentially impacted communities for major projects and appropriate minor projects in underrepresented and/or identified vulnerable and/or disadvantaged communities... Evidence of how community concerns were addressed should be provided.” Policy No. 4 states “[i]f a project is proposed within an underrepresented and/or identified vulnerable and/or disadvantaged community, potential disproportionate impacts should be identified in collaboration with the potentially impacted communities.”

The EA or EIS should specify the culturally-relevant community outreach and engagement efforts that will be conducted for the Feasibility Study, identify whether the Feasibility Study area includes vulnerable communities, and if so, identify any potential disproportionate impacts that could result from the potential coastal storm and flood risk management alternatives. Additionally, as the Feasibility Study area includes areas designated for industrial uses and other uses that could affect surrounding neighborhoods, the EA or EIS should examine, in each relevant section, the potential for each coastal storm and flood risk management alternative to negatively affect community health and quality of life, including any contributions to cumulative effects. Any impacts identified should be accompanied by mitigation measures to avoid or minimize adverse effects on community health or quality of life and would ideally be informed by community outreach and engagement.

5. **Climate Change and Safety of Fills.** Climate Change Policy No. 2 states that, “When planning shoreline areas or designing larger shoreline projects, a risk assessment should be prepared... based on the estimated 100-year flood elevation that takes into account the best estimates of future sea level rise and current flood protection and planned flood protection... for the proposed project or shoreline area. A range of sea level rise projections for mid-century and end of century based on the best scientific data available should be used in the risk assessment.” Policy No. 3 states that where such assessments show vulnerability to public safety, projects “should be designed to be resilient to a mid-century sea level rise projection” and an “adaptive management plan” should be prepared if it is likely the project will remain in place longer than mid-century.

In addition, Policy No. 4 in the Bay Plan Safety of Fills section states that structures on fill or near the shoreline should have adequate flood protection including consideration of future relative sea level rise as determined by qualified engineers. The policy states that, “[a]dequate measure should be provided to prevent damage from sea level rise and storm activity that may occur on fill or near the shoreline over the expected life of a project.... New projects on fill or near the shoreline should either be set back from the edge of the shore so that the project will not be subject to dynamic wave energy, be built so the bottom floor level of structures will be above a 100-year flood elevation that takes future sea level rise into account for the expected life of the project, be specifically designed to tolerate periodic flooding, or employ other effective means of addressing the impacts of future sea level rise and storm activity.” These policies should be read in combination with Public Access Policy No. 6, which states in part that public access areas “should be sited, designed, managed and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding” and with policies on biological resource protection described above.

The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Climate Change and Safety of Fills policies and include a discussion of how the alternatives will encourage development on the waterfront that is designed to adapt to, tolerate, and/or manage sea level rise and shoreline flooding and to ensure resilience to mid-century sea level rise projections, and adaptation to end of the century projections, if it is likely the development will remain in place longer than mid-century. This analysis should include the mean higher high water level, the 100-year flood elevation, the mid- and end-of-century sea level projections, preferably using projections based on the best-available science found in the [State’s SLR guidance](#), anticipated site-specific storm surge effects, and a preliminary assessment of the project’s vulnerability to future flooding and sea level rise. Additional relevant resources include [BCDC’s Bay Shoreline Flood Explorer](#) and [BCDC’s 2020 ART Bay Area report](#), particularly the [Mission Islais Local Assessment](#).

6. **Shoreline Protection.** The Bay Plan establishes criteria by which new shoreline protection projects may be authorized and by which existing shoreline protection may be maintained or reconstructed. Shoreline Protection Policy No. 5 requires that “all shoreline protection projects should evaluate the use of natural and nature-based features such as marsh vegetation, levees with transitional ecotone habitat, mudflats, beaches, and oyster reefs, and should incorporate these features to the greatest extent practicable. Ecosystem benefits, including habitat and water quality improvement, should be considered in determining the amount of fill necessary for the project purpose. Suitability and sustainability of proposed shoreline protection and restoration strategies at the project site should be determined using the best available science on shoreline adaptation and restoration.” Shoreline Protection Policy No. 7 states that “the Commission should encourage pilot and demonstration project to research and demonstrate the benefits of incorporating natural and nature-based techniques in San Francisco Bay.” Revised Shoreline Protection Policy 2 states equitable and culturally-relevant community outreach and

engagement should be conducted to meaningfully involve nearby communities for all shoreline protection project planning and design processes – other than maintenance and in-kind repairs to existing protection structures or small shoreline protection projects – in order to supplement technical analysis with local expertise and traditional knowledge and reduce unintended consequences. In particular, vulnerable, disadvantaged, and/or underrepresented communities should be involved. If such previous outreach and engagement did not occur, further outreach and engagement should be conducted prior to Commission action.

Finally, Water Quality Policy No. 7 requires that, whenever practicable, native vegetation buffer areas should be used in place of hard shoreline and bank erosion control methods (e.g., rock riprap) where appropriate and practicable. New shoreline protection projects are also to avoid adverse impacts to natural resources and public access, and mitigation or alternative public access must be provided when avoidance is not possible. The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Shoreline Protection policies.

7. **Dredging.** The Bay Plan includes findings and policies regarding dredging in the Bay. The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Dredging policies, if applicable.
8. **Water-Related Industry.** The Bay Plan includes policies regarding water-related industry, which state, in part, that “Sites designated for both water-related industry and port uses in the Bay Plan should be reserved for those industries and port uses that require navigable, deep water for receiving materials or shipping products by water in order to gain a significant transportation cost advantage... Water-related industry and port sites should be planned and managed so as to avoid wasteful use of the limited supply of waterfront land...” The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with relevant Bay Plan Water-Related Industry policies, if applicable.
9. **Ports.** In addition to analyzing the consistency of the potential coastal storm and flood risk management alternatives with BCDC’s Seaport Plan, as described above, the EA or EIS should also analyze the potential coastal storm and flood risk management alternatives’ consistency with Bay Plan Port policies.
10. **Transportation.** Bay Plan policies on Transportation state, in part, that “Transportation projects... should include pedestrian and bicycle paths that with either be a part of the Bay Trail or connect the Bay Trail with other regional and community trails.” The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Transportation Policies.

- 11. Public Access, Recreation, and Appearance, Design, and Scenic Views.** Section 66602 of the McAteer-Petris Act states, in part, “that maximum feasible public access, consistent with a proposed project, should be provided.” Thus, the Commission can only approve a project within its jurisdiction if it provides maximum feasible public access, consistent with the project. Bay Plan policies regarding Recreation state, in part, “diverse and accessible water-oriented recreational facilities, such as marinas, launch ramps, beaches, and fishing piers, should be provided to meet the needs of a growing and diverse population... Recreational facilities, such as waterfront parks, trails, marinas, live-aboard boats, non-motorized small boat access, fishing piers, launching lanes, and beaches should be encouraged...”

Bay Plan policies regarding Public Access state, in part, that “in addition to the public access to the Bay provided by waterfront parks, beaches, marinas, and fishing piers, maximum feasible access to and along the waterfront and on any permitted fills should be provided in and through every new development in the Bay or on the shoreline...Public access to some natural areas should be provided to permit study and enjoyment of these areas...Public access should be sited, designed, managed and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding. Whenever public access to the Bay is provided as a condition of development, on fill or on the shoreline, the access should be permanently guaranteed...Diverse and interesting public access experiences should be provided which would encourage users to remain in the designated access areas to avoid or minimize potential adverse effects on wildlife and their habitat.” Revised Public Access Policy No. 5 states “[p]ublic access that substantially changes the use or character of the site should be sited, designed, and managed based on meaningful community involvement to create public access that is inclusive and welcoming to all and embraces local multicultural and indigenous history and presence...” The updated policies go further to state that public access improvements should not only be consistent with the project, but also incorporate the culture(s) of the local community, and provide “...barrier free access for persons with disabilities, for people of all income levels, and for people of all cultures.”

Additionally, Bay Plan policies on Appearance, Design, and Scenic Views (ADSV) state, in part, that: “Maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas...” Bay Plan ADSV Policy 5 states that “To enhance the maritime atmosphere of the Bay Area, ports should be designed, whenever feasible, to permit public access and viewing of port activities by means of (a) view points (e.g., piers, platforms, or towers), restaurants, that would not interfere with port operations, (b) openings between buildings and other site designs that permit views from nearby roads.” The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan policies regarding Public Access, Recreation and Appearance, Design and Scenic Views.

- 12. Bay Fill.** The Bay Plan includes policies regarding Fill for Bay-Oriented Commercial Recreation and Bay-Oriented Public Assembly on Privately-Owned or Publicly-Owned Property, as well as policies regarding Filling for Public Trust Uses on Publicly-Owned

BCDC Comments on the Notice of Early Scoping for the San Francisco Waterfront Flood Resiliency Study National Environmental Policy Act Compliance

Property Granted in Trust to a Public Agency by the Legislature. The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with BCDC's law and Bay Plan policies regarding fill.

13. **Mitigation.** Bay Plan policies on Mitigation require projects to "compensate for unavoidable adverse impacts to the natural resources of the Bay..." The policies provide specific criteria for how compensatory mitigation projects should be sited and designed, community involvement in providing compensatory mitigation, when compensatory mitigation should occur relative to the impacts, and how to determine whether banking or in-lieu fee programs are acceptable. The policies also state that "Mitigation programs should be coordinated with all affected local, state, and federal agencies having jurisdiction or mitigation expertise to ensure, to the maximum practicable extent, a single mitigation program that satisfies the policies of all the affected agencies." The EA or EIS should discuss whether any mitigation is expected to be necessary to compensate for the potential impacts of the potential coastal storm and flood risk management alternatives, and if so, how the mitigation is consistent with Bay Plan Mitigation policies.
14. **Public Trust.** The Bay Plan includes policies regarding the Public Trust, which state, in part, that "when the Commission takes any action affecting lands subject to the public trust, it should assure that action is consistent with the public trust needs for the area and, in case of lands subject to legislative grants, should also assure that the terms of the grant are satisfied and the project is in furtherance of statewide purposes." The EA or EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Public Trust policies.

Thank you for your consideration of these comments. If you have any questions regarding this letter, please do not hesitate to contact me at (415) 352-3665 or via email at shannon.fiala@bcdc.ca.gov.

Sincerely,
SHANNON FIALA
Planning Manager

From: [Capilla, Morgan](#)
Subject: [Non-DoD Source] EPA comments - Early Scoping Notice for the SF Waterfront Flood Resiliency Study
Date: Monday, November 23, 2020 6:20:28 PM
Attachments: [2020-11-20 EPA comments Early Scoping Notice SF Waterfront Flood Resiliency Study signed.pdf](#)

All,

Attached is a courtesy copy of our early scoping comments for the SF Waterfront Flood Resiliency Study. Feel free to contact me if you have any questions.

Thanks!

Morgan

Morgan Capilla
Environmental Review Branch
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street (TIP-2)
San Francisco, CA 94105
capilla.morgan@epa.gov | (415) 972-3504
pronouns: she/her/hers



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

November 20, 2020

Ms. Anne Baker
U.S. Army Corps of Engineers, San Francisco District
450 Golden Gate Avenue, 4th Floor
San Francisco, California 94102

Subject: Notice of Early Scoping for the San Francisco Waterfront Flood Resiliency Study
National Environmental Policy Act Compliance, San Francisco County, California

Dear Ms. Baker:

The U.S. Environmental Protection Agency has reviewed the abovementioned notice issued on August 20, 2020. Our review is pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. In our November 19, 2018 letter, we accepted the U. S. Army Corps of Engineers' request to serve as a cooperating agency for this project. We appreciate the opportunity to participate in the Resource Agency Working Group meeting that took place on October 29, 2020.

The USACE and the Port of San Francisco are evaluating strategies to manage coastal storm and flood risk along 7.5 miles of the San Francisco Waterfront from Aquatic Park to Heron's Head Park. According to the early scoping notice, potential alternatives would include an array of structural, non-structural, and natural and nature-based measures. Structural measures could include new levees, floodwalls, and repairs to the existing seawall. Non-structural features could involve raising critical infrastructure, enhancing flood warning systems, floodproofing structures, and recommending land use or zoning restrictions. Natural and nature-based options for consideration include horizontal levees, ecological seawalls, and ecotones.

To assist in the early scoping process, the EPA has identified several issues for your attention, including impacts to waters, biological resources, and air quality, which are described in the attached detailed comments.

We appreciate the opportunity to review this early scoping notice and are available to discuss our comments. If you have any questions, please feel free to contact me at 415-942-3504 or capilla.morgan@epa.gov.

Sincerely,

MORGAN
CAPILLA
Digitally signed by
MORGAN CAPILLA
Date: 2020.11.20
16:15:28 -08'00'

Morgan Capilla
Environmental Review Branch

cc: Brian Meux, National Marine Fisheries Service
Steve Schoenberg, U.S. Fish and Wildlife Service
Erik Buehmann, San Francisco Bay Conservation and Development Commission
Arn Aarreberg, California Department of Fish and Wildlife
Marilyn Latta, California State Coastal Conservancy
Elizabeth Morrison, San Francisco Bay Regional Water Quality Control Board
Lindy Lowe, Port of San Francisco

**EPA'S DETAILED COMMENTS ON THE SAN FRANCISCO WATERFRONT FLOOD RESILIENCY STUDY
EARLY SCOPING NOTICE, SAN FRANCISCO COUNTY, CALIFORNIA – NOVEMBER 20, 2020**

Alternatives and Clean Water Act Section 404

In the draft NEPA document, evaluate a reasonable range of alternatives that fulfill the project's purpose and need. Quantify the potential effects of each alternative to the greatest extent possible and present the benefits and adverse impacts in comparative form to assist the decision-maker and public in understanding how the alternatives differ. Discuss the reasons for eliminating alternatives that are not evaluated in detail.

The EPA encourages the USACE to integrate Clean Water Act Section 404 requirements into the NEPA process in order to streamline environmental review by using NEPA documents for multiple permitting processes. Pursuant to federal guidelines promulgated at 40 CFR 230 under Section 404(b)(1) of the CWA, the USACE must include a comprehensive evaluation of a range of alternatives and clearly and independently demonstrate that the preferred alternative is the Least Environmentally Damaging Practicable Alternative that achieves the overall project purpose. An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. The LEDPA is the alternative with the fewest direct, secondary, and cumulative impacts to aquatic resources, so long as it does not have other significant adverse environmental consequences.

The EPA supports the analysis of a range of on-site and off-site alternatives for the various flood-risk reduction solutions being considered and appreciates the recent work that has gone into identifying spatially relevant ecological measures and enhancements. Given the unique constraints associated with the San Francisco Waterfront, alternatives will range from hard-scape options to softer options, including non-structural alternatives (e.g., managed retreat). Where appropriate, we highly encourage the use of bioengineering techniques (e.g., complex ecotones, artificial reefs, beaches) and the analysis of beneficial reuse of dredged material to support horizontal levees. The EPA encourages regulatory interagency discussions regarding the potential for multi-beneficial measures to provide some level of mitigation for Bay fill from other actions taken along the seawall.

There are various bioengineering projects in the Bay Area that could help inform potential alternatives for the proposed project. For example, there are several initiatives underway regarding horizontal levees, including the Oro Loma Living Laboratory Pilot¹ and the Transforming Shorelines Collaborative. The TSC is a collaborative forum of researchers and practitioners of nature-based solutions. The San Francisco Estuary Partnership² can provide further information. Additionally, the State Coastal Conservancy (point of contact: Marilyn Latta) has been investigating the beneficial use of oyster reef balls for nearshore projects.³

Sea Level Rise Projections

We recommend that the study include designs that would, at minimum, provide long-term resiliency and flood protection up to the current sea level rise predictions for 2100 (State of California 2018). This would be consistent with the Port of San Francisco's Resiliency Program to account for up to 7 feet of sea level rise.

¹ See <https://oroloma.org/horizontal-levée-project/>

² See <https://www.sfestuary.org/transformingshorelines/>

³ See <https://scc.ca.gov/2018/09/07/4-acres-of-living-shoreline-reefs-installed-in-richmond/>

Beneficial Use of Dredged Material

The Port of San Francisco dredges approximately 125,000 cubic yards of material on an annual basis from the study area. As alternatives are further defined, we suggest meeting with Port dredging managers to discuss feasibility and timing. Program managers and staff for the Long Term Management Strategy for Dredging and the Dredged Material Management Office can provide further guidance to support the potential use of dredged material as practicable alternatives.

Impact Assessment Methodology

Significance Thresholds

The CEQ's recently updated NEPA Regulations state that, in considering whether the effects of the proposed action are significant, agencies shall analyze the potentially affected environment and the degree of the effects of the action. In addition, agencies should consider both short- and long-term effects (40 CFR 1501.3). Such analysis will assist an agency in determining the appropriate level of NEPA review. We recommend that the impact assessment methodology be identified for each resource evaluated and include one or more significance thresholds against which project impacts can be compared, which will help the reader interpret the project's impacts.

Environmental Consequences

For each alternative, describe potential impacts to ecological, aesthetic, historic, cultural, economic, and social resources and values, as well as potential health effects that could result. The draft NEPA document should identify impacts that occur at the same time and place as the proposed action, as well as impacts that occur later in time or farther removed in distance from the proposed action (40 CFR 1508.1(g)). For example, describe potential effects that the proposed flood control measures may have on adjacent areas, including the potential for any hard-scape features to propagate erosion. Discuss trends and other reasonably foreseeable impacts to resources and values that would potentially be affected by the project and analyze and disclose the potential declining trends or other impacts to be exacerbated by effects from the proposed project.

The EPA offers the following recommendations for analyzing and disclosing impacts:

- Include a description of the affected environment that focuses on each affected resource or ecosystem. Identify the affected environment through perception of meaningful impacts and natural boundaries rather than predetermined geographic areas;
- Focus on resources of concern (i.e., resources that are "at risk" and/or are significantly affected by the proposed project before mitigation). Identify which resources are analyzed, which ones are not, and why;
- Identify on-going, planned, and reasonably foreseeable projects in the study area. Where studies exist on the environmental impacts of these other projects, use these studies as sources for quantifying impacts;
- Include appropriate baselines for the resources of concern and explain why those baselines were selected; and
- When impacts occur in combination with other trends and reasonably foreseeable effects, discuss what mitigation may be implemented. Clearly state who would be responsible for mitigation measures and how implementation would be ensured.

Consideration of other relevant projects

The alternatives analysis should consider the potential effects and scope of other relevant projects likely to occur in the area. We appreciate that the study will lay out the relationship with the Port of San Francisco's Waterfront Resilience Program, including the Embarcadero Seawall Project (approximately

3 miles of the most seismically at-risk portion of the Embarcadero) and the USACE's larger Flood Resiliency Study scope. Our understanding is that the USACE study expands upon critical information gleaned from the Embarcadero Seawall Multi-Hazard Risk Assessment regarding flood-risk. The EPA encourages alignment with the proposed Seawall Projects (projects funded by Proposition A) for relevant flood-risk portions of the seawall that are slated to be in permitting and construction by 2023/2024.

The alternatives should be informed by sediment quality aspects given the historic and current industrial nature of portions of the San Francisco Waterfront. There are critical sediment remediation projects underway that could be affected by chosen alternatives and will need to be considered by the study: the Mission Bay Ferry Landing and the Port of San Francisco's Pier 39 to 43 ½ Sediment Remediation Program. The draft NEPA document should consider existing available physical, chemical, and biological sediment data to ascertain hotspots and guide evaluation of alternatives that may require sediment disturbance. Further sediment testing and evaluation may be warranted if dredging actions are contemplated to ensure that sediments proposed for dredging are adequately characterized to determine suitable placement options. The EPA, as part of the Dredged Material Management Office, provides suitability determinations for ocean disposal actions. Absent sediment testing and suitability determinations in advance from the DMMO agencies, the draft NEPA document should presume that a percentage of the material to be dredged will not be suitable for all placement options, and should identify how any toxic or contaminated material that does not meet placement criteria would be handled.

Biological Resources, Habitat, and Wildlife

Endangered Species Act consideration will be important for alternatives development for this project. This will include marine resources under the purview of the National Marine Fisheries Service and the California Department of Fish and Wildlife. In the draft NEPA document, identify all petitioned and listed threatened and endangered species and critical habitat that might occur within the project area. Identify and quantify which species or critical habitat might be affected by each alternative and mitigate impacts to these species; emphasis should be placed on the protection and recovery of species due to their status or potential status under the federal or state ESA.

Air Quality

The proposed project would take place in a federal nonattainment area for ozone (marginal) and particulate matter 2.5 (moderate). It is, therefore, important that the draft NEPA document provide a robust air quality impact analysis, including ambient air conditions (baseline or existing conditions), National Ambient Air Quality Standards, and criteria pollutant nonattainment areas. Evaluate compliance with state and federal air quality regulations and discuss the potential for impacts to air quality. The EPA recommends an evaluation of the following measures to reduce emissions of criteria and hazardous air pollutants:

- *Quantify Emissions* – Estimate emissions of criteria pollutants from the proposed project activities and discuss the timeframe for release of these emissions over the lifespan of the project. Describe and estimate emissions from potential construction activities and analyze proposed mitigation measures to minimize these emissions.
- *Specify Emissions Sources* – Specify the emission sources by pollutant from mobile sources, stationary sources, and ground disturbance. Use this source-specific information to identify appropriate mitigation measures.
- *Construction Emissions Mitigation Plan* – During the Resource Agency Working Group meeting, the USACE indicated that the project would likely require large construction areas and cause temporary disruptions. The EPA recommends including commitments to robust air quality

mitigation measures during construction and minimizing impacts to nearby communities to the fullest extent feasible. In addition to measures necessary to meet all applicable local, state, and federal requirements, the EPA recommends that the following measures be included:

Fugitive Dust Source Controls

- Stabilize open soil storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 miles per hour.

Mobile and Stationary Source Controls

- Minimize use, trips, and unnecessary idling of heavy equipment.
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies.
- Limit unnecessary idling and ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.
- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.
- Lease or buy newer, cleaner equipment using the best available emissions control technologies.
 - Use lower-emitting engines and fuels, including electric, liquified gas, hydrogen fuel cells, and/or alternative diesel formulations, where feasible.
 - *On-Highway Vehicles* - On-highway vehicles should meet or exceed the U.S. EPA exhaust emissions standards for model year 2010 and newer heavy-duty on-highway compression-ignition engines (e.g., drayage trucks, long haul trucks, refuse haulers, shuttle buses, etc.).⁴
 - *Marine Vessels*: Marine vessels should meet or exceed the latest EPA exhaust emissions standards for marine compression-ignition engines (i.e., Tier 4 for Category 1 & 2 vessels, and Tier 3 for Category 3 vessels).⁵
 - *Nonroad Vehicles & Equipment* - Nonroad vehicles and equipment should meet or exceed the U.S. EPA Tier 4 exhaust emissions standards for heavy-duty nonroad compression-ignition engines (e.g., nonroad trucks, construction equipment, cargo handlers, etc.).⁶

Administrative Controls

- Coordinate with appropriate air quality agencies to identify a construction schedule that minimizes project-related impacts when considered with other planned projects in the region.
- Use the minimum feasible amount of greenhouse gas-emitting construction materials.

⁴ See <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100O9ZZ.pdf>

⁵ See <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA0B.pdf>

⁶ See <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA05.pdf>

- Use cement blended with the maximum feasible amount of industrial materials that can be reused to reduce greenhouse gas emissions from cement production.
- Recycle construction debris to the maximum extent feasible.
- Specify how impacts to sensitive receptors (e.g., schools, daycare centers, hospitals, senior centers, etc.) would be avoided. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.
- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emissions controls for each piece of equipment before groundbreaking.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.

Transporting Construction Materials

The EPA recommends that the USACE avoid routing truck traffic near residences, sensitive receptors, and other vulnerable populations (e.g., communities with potential environmental justice concerns) to the fullest extent feasible. Analyze and disclose of potential impacts associated with transporting material used during construction. Include maps that illustrate any haul routes that are being considered in the draft NEPA document.

General Conformity

The EPA's General Conformity Rule, established under Section 176(c)(4) of the Clean Air Act, provides a specific process for ensuring federal actions will conform with State Implementation Plans to achieve the NAAQS. Complete a general conformity applicability analysis (e.g., a comparison of direct and indirect emissions for each alternative with *de minimis* thresholds of 40 CFR 93.153) for all criteria pollutants for which the San Francisco Bay Area Air Basin is in nonattainment or attainment—maintenance⁷ status. We recommend including a draft general conformity determination in the draft NEPA document to fulfill the public participation requirements of 40 CFR 93.156.

Environmental Justice and Title VI of the Civil Rights Act

Executive Order 12898⁸ directs federal agencies to pursue Environmental Justice to the greatest extent possible by identifying and addressing any disproportionately high and adverse human health or environmental effects that the agency's programs, policies, or activities may have on minority and low-income populations. The memorandum accompanying the EO highlights both NEPA and the Civil Rights Act of 1964 as examples of existing statutory authorities that can be used to address environmental justice.⁹ CEQ has developed guidance¹⁰ to address EJ during the NEPA process.

*Promising Practices for Environmental Justice Methodologies in NEPA Reviews*¹¹ may also serve as a useful resource during the environmental review process. This document is a compilation of methodologies from current agency practices identified by the NEPA Committee of the Federal Interagency Working Group on Environmental Justice. The document focuses on the interface of EJ

⁷ Maintenance areas redesignated to attainment more than twenty years in the past are no longer required to comply with general conformity.

⁸ Available at: <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>

⁹ Available at: https://www.epa.gov/sites/production/files/2015-02/documents/clinton_memo_12898.pdf

¹⁰ Council on Environmental Quality (1997). Environmental Justice: Guidance Under the National Environmental Policy Act. Available at: https://www.epa.gov/sites/production/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf

¹¹ Available at: https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf

considerations through NEPA processes and provides recommendations on applying EJ methodologies that have been established in federal NEPA practice. In addition, recipients of federal assistance have an obligation to ensure that their programs do not result in discriminatory effects or burdens on populations protected under Title VI of the Civil Rights Act.

In the draft NEPA document, discuss potential environmental justice concerns, such as air quality, water quality, noise, vibration, odors, etc. Discuss efforts made by the lead agencies to address potential language barriers and ensure that any affected non-English speaking populations were meaningfully engaged. Describe any environmental justice issues raised during scoping meetings for this project, as well as any relevant public outreach events conducted by the Port of San Francisco. Clearly and effectively define the “reference community” and the “affected community.” These definitions are used to determine whether there are disproportionately high and adverse human health or environmental impacts by comparing the impacts to the affected community with the impacts to the reference community. A well-defined affected community will accurately reflect the demographic characteristics of the populations likely to be adversely impacted by the proposed project. A well-defined reference community will reflect the characteristics of the general population (e.g., municipal, regional, state). Disclose whether the proposed project may disproportionately and adversely affect low-income and minority populations and identify measures to mitigate adverse impacts. We encourage the USACE to use information gathered from public outreach efforts to design mitigation measures that respond to the needs of communities that would be adversely affected by the project. Efforts to reduce environmental justice impacts could assist the Port, as a recipient of federal funds, to meet its potential obligations under Title VI of the Civil Rights Act.

Consultation with Tribal Governments

Executive Order 13175, “Consultation and Coordination with Indian Tribal Governments” (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Tribes. In the draft NEPA document, describe the process and outcome of government-to-government consultation between the USACE and each of the tribal governments within the project area, issues that were raised (if any), and how those issues were addressed in the selection of the Preferred Alternative. As a general resource, the EPA recommends the document *Tribal Consultation: Best Practices in Historic Preservation*, published by the National Association of Tribal Historic Preservation Officers.¹²

National Historic Preservation Act and Executive Order 13007

Consultation for tribal cultural resources is required under Section 106 of the National Historic Preservation Act. Historic properties under the NHPA are properties that are included in the National Register of Historic Places or that meet the criteria for the National Register. Section 106 of the NHPA requires a federal agency, upon determining that activities under its control could affect historic properties, consult with the appropriate State Historic Preservation Officer/Tribal Historic Preservation Office. Under NEPA, any impacts to tribal, cultural, or other treaty resources must be discussed and mitigated. Section 106 of the NHPA requires that Federal agencies consider the effects of their actions on cultural resources, following regulation in 36 CFR 800.

Executive Order 13007 “Indian Sacred Sites” (May 24, 1996) requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners, and to avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. It is important

¹² Available at: http://www.nathpo.org/PDF/Tribal_Consultation.pdf

to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site. It is also important to note that sacred sites may not be identified solely in consulting with tribes located within geographic proximity of the project. Tribes located outside of the project area may also have religiously significant ties to lands within the project area and should, therefore, be included in the consultation process.

The EPA recommends that the draft NEPA document address the existence of Indian sacred sites in the project area. Explain how the proposed action would address Executive Order 13007, distinguish it from Section 106 of the NHPA, and discuss how the USACE would ensure that the proposed action would avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. Provide a summary of all coordination with Tribes and with the SHPO/THPO, including identification of NRHP-eligible sites and development of a Cultural Resource Management Plan.

Hazardous Materials and Waste

The EPA recommends that the draft NEPA document identify if there is evidence of hazardous materials or other materials having been buried in the proposed project area and include protocols for: (1) handling hazardous materials or refuse sites found during construction; (2) storing and disposing of hazardous wastes; and (3) remediating any spill or discharge of hazardous materials into the environment.



US Army Corps
of Engineers®



U.S. ARMY CORPS OF ENGINEERS SAN FRANCISCO WATERFRONT FLOOD RESILIENCY STUDY

NEPA Early Scoping Public Meetings Transcript



U.S. ARMY CORPS OF ENGINEERS SAN FRANCISCO WATERFRONT FLOOD RESILIENCY STUDY

EARLY NEPA SCOPING PUBLIC MEETING

September 16th at 6:00 PM to 8:30 PM (PDT)

September 17th at 1:00 PM to 3:00 PM (PDT)

450 Golden Gate Avenue, 4th Floor

San Francisco California 94102

Early scoping public meeting held virtually on a web conference and teleconference line in San Francisco, California. Hosted by the U.S. Army Corps of Engineers, San Francisco District (USACE) and the Port of San Francisco

PRESENTERS:

JESSIE MIZIC, USACE, CO-LEAD PLANNER AND MEDIATOR

JESSICA LUDY, USACE, CO-LEAD PLANNER

ANNE BAKER, USACE, ENVIRONMENTAL LEAD

LINDY LOWE, PORT OF SAN FRANCISCO, RESILIENCE OFFICER



PROCEEDINGS



MS. JESSIE MIZIC: Good afternoon/evening, welcome to the San Francisco Waterfront Flood Resiliency Study National Environmental Policy Act's Early Scoping public meeting to gather comments and feedback on the study. My Name is Jessie Mizic and I will be facilitating today's meeting with the United States Army Corps of Engineers and the Port of San Francisco.

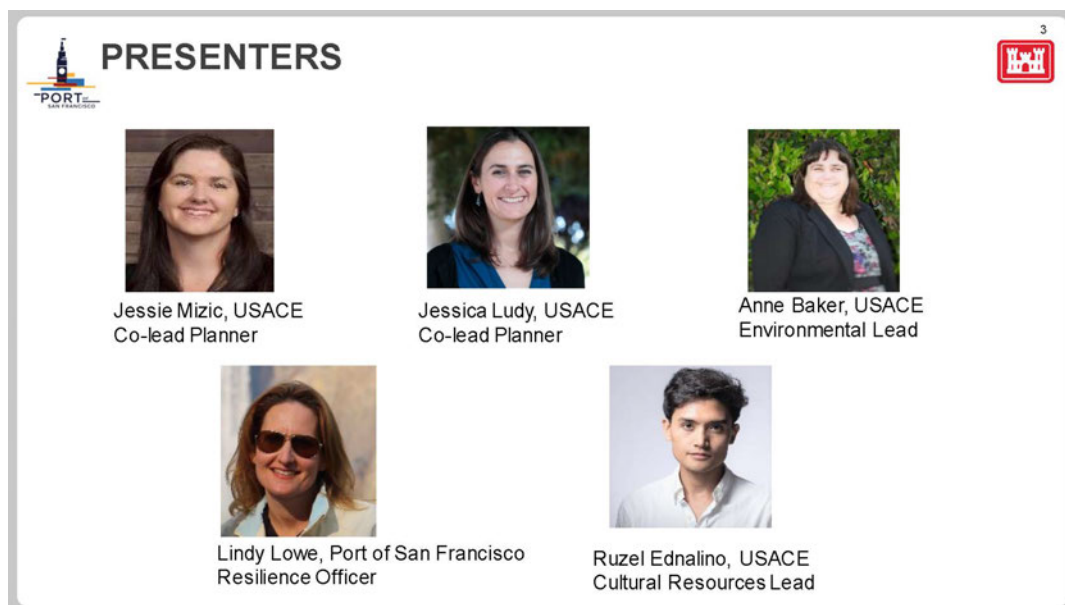
WELCOME! MEETING PURPOSE & OBJECTIVES

- Introducing USACE & Port of SF Coastal Storm Risk Feasibility Study
- Complying with National Environmental Policy Act (NEPA)
 - Solicitation for public input – scoping
- Explaining Corps Planning Process
 - Aligning study with other Port activities
- Staying informed and engaged

We're better with your voice

MS. JESSIE MIZIC: First before we begin, can everyone see the slides? If not, please respond in chat or on the phone. Thank you. The San Francisco Waterfront Flood Resiliency Study is a partnership with

USACE and the Port to address Coastal Storm risk and flood resiliency within the study area. Today we will introduce the presenters and their roles. Then we will discuss ground rule to honor everyone's time and ensure everyone has the opportunity to provide comments and feedback about this presentation and study. During the presentation, we will look at the study description and location. We will look at how this study and today's meeting is a required step in complying with the NEPA process including solicitation for public input. We will also discuss the planning process and alignment with other Port activities. Finally, we will end with information on how to stay informed and engaged as the study progresses.



MS. JESSIE MIZIC: I would like to introduce our presenters for today's meeting, starting with myself Jessie Mizic with the U.S. Army Corps of Engineers. I am a co-lead planner for this study and a facilitator. Next, we have Jessica Ludy who is a co-lead planner with the Corps. Also with the Corps is Anne Baker, who is the study's environmental lead. Lindy Lowe is the resilience officer with the Port of San Francisco. Lastly with the Corps we have Ruzel Ednalino who is the cultural resources lead.



VIRTUAL MEETING PROCEDURES



- If you have any comments during the presentation, please type them into the chat box.
 - Chat Box can only be viewed by the facilitator
- If you wish to make a verbal comment or ask a question, please hold your question to the end of the presentation.
- During the open forum for public comments, please use the “hand raise” icon to request to speak. We will notify you when it is your turn.
- The meeting and all comments are being recorded.

MS. JESSIE MIZIC: If you have any comments during the presentation, we ask that you wait until after the presentation to voice them. There is a chat function in the WebEx meeting. To have your comments addressed please make sure to include your name and contact information so that we can make sure your comment is captured. With that, I would like to again thank you for taking the time to be here today and now Jessica Ludy with the Corps will kick off the presentation.



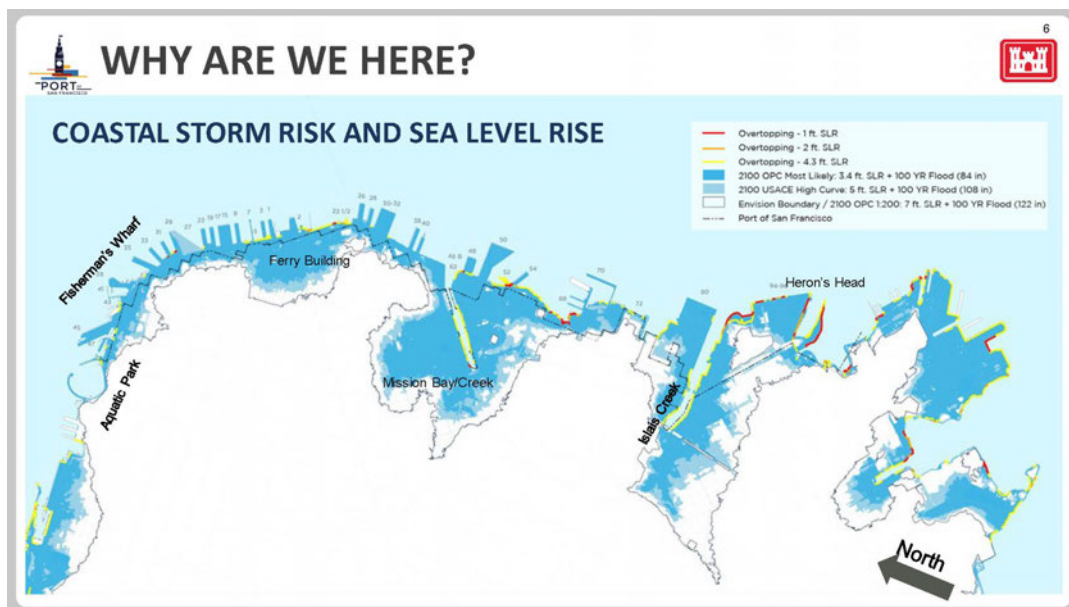
SF WATERFRONT FLOOD RESILIENCY STUDY



STUDY OVERVIEW & PROCESS

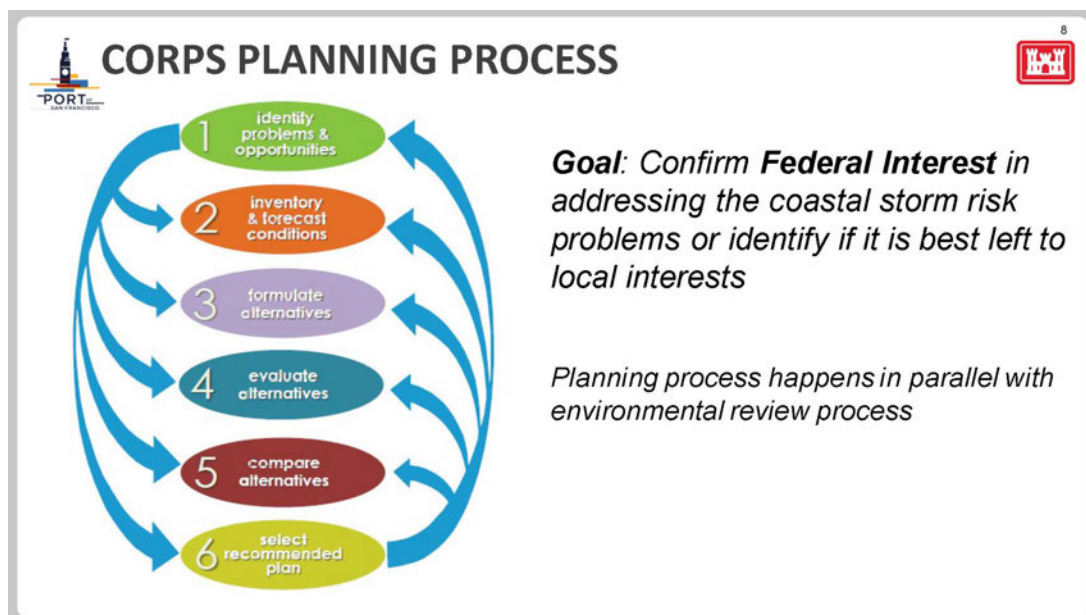
- Federal & local partnership between USACE and the Port of San Francisco
- ~3-5 years, 50/50 cost share
- Team evaluates coastal storm risk to study area, develops and assesses alternatives
- Team recommends a plan to Congress
- Design/construction of recommended plan cost shared 65% fed / 35% local

MS. JESSICA LUDY: Thank you Jessie. As part of the Waterfront Resilience Program, USACE is partnering with the Port of San Francisco for the San Francisco Waterfront Flood Resiliency Study. We share the cost of a study which is 50% paid by the Port and 50% paid by the Corps, we expect this study to take around 3 to 5 years. What we do together is evaluate flood risks to the study area over time; then we start to identify and better understand options to help us reduce that flood risk. Ultimately the study process and evaluations would culminate in a recommendation to congress of a preferred plan. If Congress approves and appropriate money for constructing the plan and projects, then the costs are covered 65% by the federal government and 35% by local governments. If the local partner, the Port of San Francisco, prefers a different plan then this is still an option. But the sponsor would need to pay any extra costs.



MS. JESSICA LUDY: Now to just give you all a sense of why we're here. What you're looking at is a map of the waterfront area. These blue areas show the potential for future flooding in the year 2100 if no action is taken. The different shades of blue represents what might occur with different sea level rise scenarios. What you see in the middle of the page is flooding extending fairly far inland in the Mission Creek and Mission Bay areas. To set the scene for the study problems, the areas that are in red, orange,

and yellow are the lowest sections of the waterfront. Therefore the first places that the shoreline is likely to overtop with water from a large storm or from very high tides. The study area shown on this slide is in all four colors. Going from Aquatic Park on the northern area of the study area on the left and Herons Head in the southern area on the right. This map is flipped sideways following the north arrow. The study area is represented through five major neighborhoods, shown as dotted lines along the bottom. The 4 reaches are shown as linear lines along the shoreline that the team is using to organize our assessment, which is further divided into 15 sub areas. This organization of the project helps us to better understand risks, characterize the areas, and think about our options.



MS. JESSICA LUDY: Now this diagram shows the Corps six step planning process, which involves identifying the problems, opportunities, objectives, and constraints, inventorying and forecasting conditions, formulating alternatives, then evaluating those alternatives, comparing those alternatives, and eventually selecting a recommended plan. With that in mind, how do we begin to address this challenge? Our goal is to confirm federal interest in addressing the coastal storm risk problems or identify if it is best left to local interests. There are three potential outcomes which involves

confirmation of federal interest. The first outcome would be no federal interest, meaning that Congress and the administration have determined the problem is best left to local interests. The second outcome is that problems and potential solutions are entirely consistent with the Corps missions, as assigned by Congress and Administrations priorities. The third outcome involves the problem having a federal interest, but solutions require implementation under multiple federal authorities and agencies, including the Corps. I'm going to hand the mic over to Anne Baker to discuss the reason why we're holding this meeting today.



NATIONAL ENVIRONMENTAL POLICY ACT



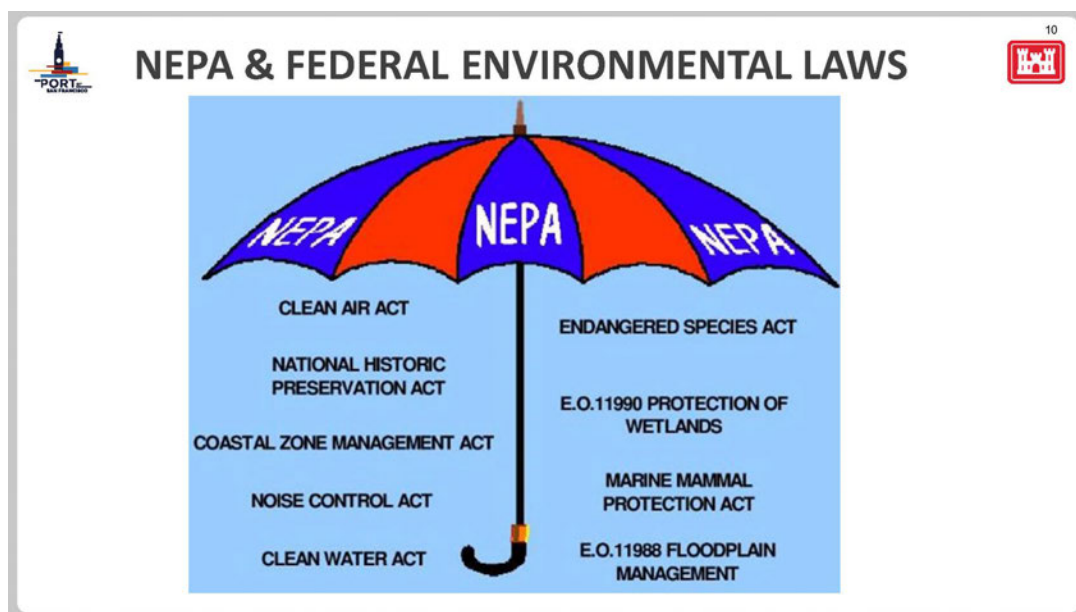
- What are the existing conditions in the area?
- What alternatives are under consideration?
- What are the impacts of the alternatives?
 - Environmental? Human? Cultural/Historical?
- What are the benefits of the alternatives?
 - Public Safety? Other environmental conditions?
- How do you minimize or compensate for impacts of the alternatives?
- How are you complying with Federal Environmental Laws?
- Public involvement & disclosure



NEPA

MS. ANNE BAKER: Hi everyone. So, the reason we're here today is because of the National Environmental Policy Act, or what we call NEPA. NEPA is similar to CEQA, the California Environmental Quality Act, which you're probably a bit more familiar with. It requires Federal Agencies to assess the potential impacts of their projects on the environment and fully disclose those effects to the public. NEPA is also a process-oriented law and requires agencies to go through a structured process in order to fully comply with the law. This early scoping meeting is the beginning of that process. Should we determine that the potential alternatives being developed for this study were to have significant effects

on the environment, we would prepare an Environmental Impact Statement. Prior to initiating an EIS, we are required to conduct public scoping, in order to seek early input from the public on their priorities and concerns regarding this study. In this case, we have not made the determination yet that there would be significant effects on the environment because we really don't have defined alternatives yet. That's why we're calling this "early scoping". Because we're doing it regardless of what the eventual impacts will be, due to the fact that we're looking at a project right along the San Francisco Waterfront, and we all care a lot about this study area and we know how important it is to the community. We'll use the input gained from these meetings to help us establish the existing conditions in the study area, which is basically the baseline condition of the environmental resources in the area. We will then assess the alternatives and determine the potential effects that could occur from the action. Finally we would determine any necessary avoidance, minimization measures, or compensation required to mitigate for the environmental effects. Once this process is complete, we would come back to you all again with our draft NEPA document and request public comment on our proposal and the effects and mitigation measures disclosed in the NEPA document.



MS. ANNE BAKER: In addition, we sometimes refer to NEPA as an umbrella law, meaning that as a part of complying with NEPA, we also have to establish compliance with all of the other Federal environmental laws and regulations, like the Clean Air Act, Clean Water Act, Endangered Species Act, and many others. Our path to compliance with those laws is always documented in our NEPA document, which would be either an Environmental Assessment or an Environmental Impact Statement. The alternative formulation and evaluation process required to comply with NEPA occurs hand in hand with the Corps Planning Process, which Jessica was just describing to you. Each step of the Corps Planning Process aligns and integrates with a portion of the legally defined process required to comply with NEPA.




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PLANNING AND NEPA CROSSWALK

Planning steps	NEPA requirements
▪ Scope for Project	▪ Scope for NEPA
▪ Specify Problems & Opportunities, Objectives & Constraints	▪ Describe Purpose & Need consistent with project scope
▪ Inventory and Forecast Conditions (Future Without)	▪ Describe existing conditions, trends, No Action alternative
▪ Formulate alternative plans to address Objectives	▪ Include reasonable range of alternatives that address Purpose and Need
▪ Evaluate effects of alternative plans	▪ Evaluate alternatives' effects to resources
▪ Compare alternative plans	▪ Compare alternatives to No Action, ID the Environmental Alternative
▪ Select a Tentative Selected Plan	▪ Identify the Agency Preferred Plan
▪ Release for Public Review	▪ Release for Public Review

MS. ANNE BAKER: While alternatives are being formulated under the planning process, they are also being disclosed and evaluated under the NEPA process at the same time. This allows both of these processes to proceed together in a single integrated decision-making process. The final result of this integrated process will be a tentatively selected plan that takes into account the potential environmental effects and associated mitigation. We would then produce an integrated Planning

Report and NEPA Document which would be released jointly for public review. This release is currently scheduled to occur early in 2022.



STUDY PROBLEMS

12


Low-lying community assets are at risk of damage from coastal storms and extreme high tides

- Sea-level rise in SF Bay expected to increase frequency of coastal storm flooding along SF waterfront
- Access to critical infrastructure, emergency services, and evacuation could be limited or cut-off during storm flooding
- Century-old seawall has outlasted its design life and could fail due to age or earthquake

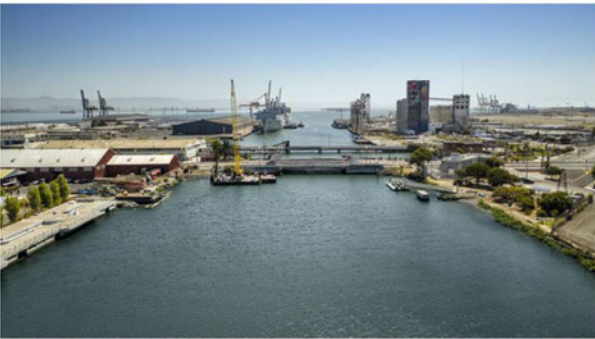


MS. JESSICA LUDY: Now this problem list and the next series of slides will discuss the objectives and constraints that are based on input that the Port received from their larger ongoing efforts with the Port's Waterfront Resilience Program. Low-lying community assets are at risk of damage from coastal storms and extreme high tides. Sea-level rise in the San Francisco bay is expected to increase the frequency of coastal storm flooding along the waterfront. Access to critical infrastructure, emergency services, and evacuation could be limited or cut-off during storm flooding. The century-old seawall has also outlasted its design life and could fail due to age or an earthquake. Our study's objectives are to reduce economic damages from coastal storm risks to businesses, residents, and infrastructures. We also want to reduce risks to human health and safety from coastal storm impacts. Our last objective would improve the resiliency of the local economy to impacts from coastal storms.



STUDY CONSTRAINTS

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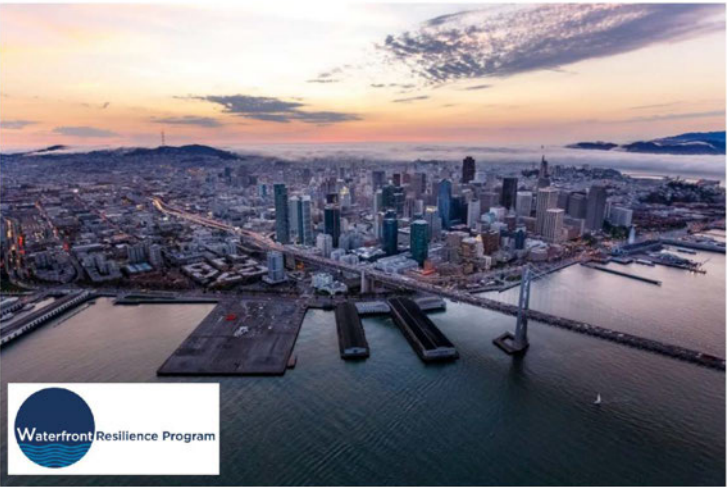
- Maintain, preserve **maritime facilities & function**; avoid impacts on Port **infrastructure & operations**
- Avoid actions that violate authority of the Port Commission to fulfill **public trust responsibilities** (Burton Act)
- Maintain required **public access and regional and citywide mobility corridors** such as the Embarcadero Roadway and the SF Bay Trail
- Maintain SF Bay **ecological function**

MS. JESSICA LUDY: The constraints we identified for this study involves maintaining and preserving maritime facilities and function while avoiding impacts on the Port's infrastructure and operations. We would also like to avoid actions that violates authority of the Port commission to fulfill public trust responsibilities under the Burton Act. Our third constraint would be maintenance of required public access and regional and citywide mobility corridors such as the Embarcadero Roadway and the San Francisco Bay Trail. Lastly, maintenance of the San Francisco bay's ecological functions.



THIS STUDY IS PART OF THE WATERFRONT RESILIENCE PROGRAM

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MS. JESSICA LUDY: This study is just one component of the Port's larger Waterfront Resilience Program, which is broader in scope and geographic area than what we're tackling. However, the two are related and complimentary. For example, the community outreach that the Port is leading for it is Waterfront Resilience Program will help the study team more clearly understand community risks, concerns, and preferences for the alternatives. I'm going to hand it over to Lindy Lowe from the Port of San Francisco so she can cover previous outreach that the Port has covered.



PORT OF SAN FRANCISCO OUTREACH INFORMS WATERFRONT RESILIENCE

16




Agency collaboration

The Port continues to build close partnerships with city, regional, and federal agencies to ensure accuracy and innovation in the program.



Community and advisory engagement

Port led 100+ events waterfront-wide, including over 115 presentations to community members and advisory groups. The goal was to solicit community input, concerns, and preferences for defining a vision and solutions for waterfront resilience.



MS. LINDY LOWE: Thank you Jessica. The Port has been engaging stakeholders over the last two years on the work that we have been doing as part of the Waterfront Resilience Program, which includes the Flood Resiliency Study. This engagement has included our city department partners, agency partners with assets within the program area such as BART and other local, regional and federal agencies.

HOW PRIOR WATERFRONT RESILIENCE OUTREACH INFORMS THIS STUDY

- Community ideas on an **"inspiring an adaptable waterfront"** highlight key considerations for evaluating alternatives:

 - Do they connect us to the shoreline?
 - Is the waterfront accessible?
 - Do some measures preserve and promote jobs, housing, seniors & youth more than others?
- Community feedback on **priority assets most loved by the community** help the study team:

 - Understand consequences of taking no action
 - Select projects that responsibly use tax dollars
 - Consider alternatives that preserve and protect community character
- Community feedback on evaluation criteria affirmed the team should prioritize life safety and disaster response, and to **"put people first"**, with special attention to:

 - housing, disaster recovery facilities, utilities, and businesses
 - transportation assets and waterfront mobility

MS. LINDY LOWE: Additionally, we have been engaging with the public over the last two years as well, holding or participating in over 100 events across the entire waterfront, hosting a community meeting series in three locations- Embarcadero, Mission Creek and Islais Creek Bayview and providing presentations to Port and city advisory groups. This engagement has provided us with an understanding of community and stakeholder priorities as well as direct input and participation in the development of vision, principles, goals and objectives to guide the work within the Program and as well as for the flood resiliency study.

COMMUNITY INPUT WILL INFORM MEASURES AND ALTERNATIVES

Measures are a plan or course of action to achieve a particular purpose

- Physical Measures
- Ecological Measures
- Earthquake-resilient Measures
- Emergency Response, Land Use

Alternatives are sets of measures intended to reduce coastal storm risk and respond to the problems and objectives in the study area

MS. JESSICA LUDY: The community input that Lindy has described will better inform the measures and alternatives that the team will consider in reducing coastal storm risks. Measures are defined as a plan or course of action that achieves a particular purpose. We have four measures here that cover physical measures, ecological measures, earthquake-resilient measures, and emergency response or land use. Alternatives are sets of measures intended to reduce coastal storm risk and respond to the problems and objectives in the study area. When the team begins to consider options or measures, we are considering physical measures like seawalls, levees, raised bicycle pathways, or elevating certain buildings so they can withstand flooding and waves. We also consider ecological measures, to help maintain ecological functions while reducing coastal storm risk; this might include nourishing beaches where possible, restoring tidal marsh to help reduce waves. We will make sure that measures can withstand earthquakes, and for example like improving the foundations while building a seawall or floodwall. And we also have emergency response measures we can take like safe evacuation zones, developing emergency actions plans for our critical infrastructure like water treatment or mass transit; and we can consider land use planning so that any new development is required to be safe or resilient to floods.

**NEPA DOCUMENT – ENVIRONMENTAL IMPACT STATEMENT**
ENVIRONMENTAL CONSIDERATIONS

Human Environment

- Aesthetics
- Air Quality
- Environmental Justice
- Hazardous Waste
- Land Use
- Noise
- Recreation
- Socioeconomics
- Transportation
- Utilities

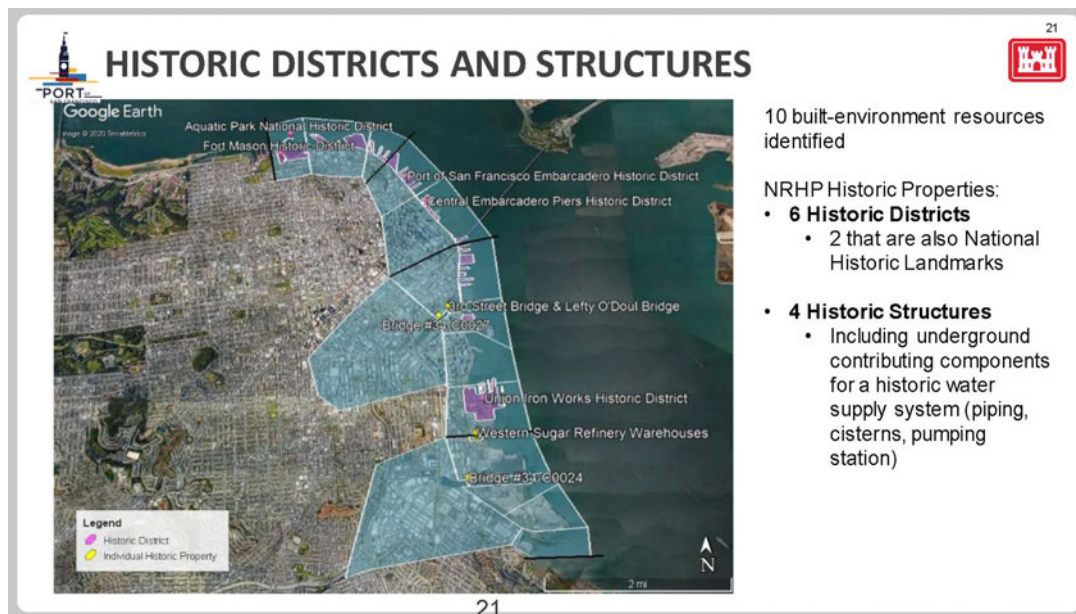


MS. ANNE BAKER: The NEPA document will likely be focused primarily on potential effects to the human environment. Since the SF Waterfront is such an urban environment, we anticipate the majority of the potential impacts would be on the resources that really affect people. So this includes looking at things like the existing and future aesthetic condition of the area, sightlines from buildings and the Embarcadero. We'll take a look at the potential effects that result when there's construction going on nearby, like air quality effects that result from construction equipment and dust, construction noise, any temporary disruptions to utility services, etc. Additionally, we'll look at the recreation and transportation systems in the study area and how construction of alternatives could affect traffic, or temporary access to the shoreline. We'll look at whether any detours or road realignments might result from the alternatives.



MS. ANNE BAKER: In addition to the human environmental conditions, we'll also study the ecological environment along the shoreline in the NEPA document. Since the shoreline itself is so urban, there really isn't a lot of existing "natural" habitat for terrestrial/land-based wildlife species or vegetation. However, the aquatic environment along the waterfront is extremely sensitive and in-water work along

the shoreline is a strong possibility for any project that could result from this study. So we expect this analysis to largely focus on aquatic or marine species and habitat, including water quality considerations in the Bay, Mission Creek, and Islais Creek. Now, I'm going to hand it over to Ruzel Ednalino so he can cover the cultural resources identified in our study area.



MR. RUZEL EDNALINO: Thank you Anne. Good afternoon/evening everyone, my name is Ruzel Ednalino and I'm an archaeologist for the Corps San Francisco District. Today, I'll be going over the cultural and historic resources throughout the study area. Now this map shows the entire study area with 10 historic properties that the team has identified early on. Historic properties are defined under the National Historic Preservation Act to be a district, site, building, structure, or even object that has achieved significance of the past in the last 50 years. Looking at the map we can see there are polygons in purple. This means that the resource is a historic district, which is an area or neighborhood that's listed on the National Register of Historic Places. Anything in yellow is an individual historic property which could be a building, object, structure, or site that's also listed or eligible for the National Register. Now currently research is ongoing to determine if there are any other cultural or historic resources for our team to address. The team does expect there to be more cultural and historic resources identified later in the

study. Overall for what we've identified, there are six historic districts in total with two districts also listed as national historic landmarks. These are located in in Reach 1 in the northwest corner of our study area, where we have the Fort Mason Historic District and the Aquatic Park Historic District. These two districts at national historic landmark districts. There are four individual historic properties, which consists of three bridges and one building from a sugar refinery in Reaches 3 and 4. The team is also considering historic underground elements for a water supply system that's spread out across the study area.



ARCHAEOLOGICAL RESOURCES

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- The study team is consulting with tribal bands identified by the Native American Heritage Commission
- Documented historical and prehistoric archaeological sites are located further landward where the historic shoreline once existed
- Deposits that underlie Reach 1 and 2 consists of landfill
- Alternatives formulated will guide the need for additional archaeological/tribal monitoring, subsurface testing, and any other planning efforts



Archaeologist and construction crews diligently combing through dirt at a site along San Francisco's waterfront.
Photo from <https://abc7news.com/san-francisco-archaeologist-digs-up-historic-site/1077774/>

MR. RUZEL EDNALINO: Now that I've covered the built-environment resources in the study area I'll move on to the archaeological considerations. Currently the team is consulting with several Ohlone tribal bands identified by the Native American Heritage Commission. We've begun early consultations to determine if there are any significant sites to consider in the study area as well as a records search which is currently ongoing to identify past recorded sites. Our current assumption is that most deposits that surround the waterfront area consist of bayfill, and as such, there is a low likelihood to uncover a significant archaeological site the closer we are to the present shoreline. Depending on how the

alternatives are developed, the team will continue consulting with tribal bands, historic organizations, agencies, and the State Historic Preservation Officer to see if there are any risks to disturb archaeological sites and agree on how we can best avoid these sites or minimize impacts during construction. Now that's my brief summary on the initial cultural and historic resources the team has identified. I'm going to hand it back over to Jessie, thank you.



WE WANT TO HEAR FROM YOU

23





Port presentations, collaboration, and seeking input from Agency partners and the Community for the Port's Waterfront Resilience Program (2018- 2020)

- Perspectives on study problems, objectives, and constraints of Coastal Storm Risk Feasibility Study
- Ideas for measures and alternatives
- Assets or resources that are particularly important or of concern
- Comments about the NEPA or Corps Planning processes

MS. JESSIE MIZIC: Thank you Ruzel. This concludes the presentation portion of our meeting. Now we will move into the public comment phase of the meeting. Before we do, I would like to say thank you to our presenters with a virtual round of applause. Thanks for all the hard work that you have done in putting this meeting together. This now is an opportunity to voice any comments or feedback that you all may have concerning this project. We are interested in hearing your thoughts on the perspectives on study problems, objectives, and constraints of the Coastal Storm Risk Feasibility Study. This also includes ideas for measures and alternatives, assets or resources that are particularly important or of concern to you all, and comments about the NEPA or Corps planning processes. Before we open the floor, we would like to remind the audience on how to provide comments. Please use the raise hand function or

provide comments in the chat box. All comments and feedback will be collected and used in the study process. I would like to leave this slide up as we move through the comment phase. This slide shows all the various ways and timelines for providing public comments. If you have any comments during the presentation, please type them in the chat box. The chat box can only be viewed by the facilitator. If you wish to make a verbal comment or ask a question, please hold your question until the end of the presentation. During the open forum for public comments, please use the “hand raise” icon to request to speak. We will notify you when it is your turn. The meeting and all comments are being recorded. Let’s go ahead and get started. I will leave the floor open for a few more minutes.



PUBLIC ENGAGEMENT OPPORTUNITIES

SAN FRANCISCO WATERFRONT FLOOD RESILIENCY STUDY



Scoping comments due by October 21, 2020:
Relevant Chat Box comments provided today will be considered as written comments.

Or, **submit emails** to: SFWFRS@usace.army.mil
Or, **send mail** to:
Ms. Anne Baker
450 Golden Gate Avenue, 4th Floor
San Francisco, California 94102

Webpage for study information:
<https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Projects-A-Z/San-Francisco-Waterfront-Storm-Damage-Reduction/>

Public Review of Draft Report and NEPA Document:

- 45 day public review and comment timeframe
- Includes public meeting and concurrent agency and other reviews

Contact the Port of San Francisco:
Lindy Lowe
Port Resilience Officer
Port of San Francisco
lindy.lowe@sfport.com
sfportresilience.com

MS. JESSIE MIZIC: Again, if you would like to provide any comments, please use the instructions on this slide. This concludes our meeting tonight. Thank you to all of you who chose to be a part of this meeting. Your time is valuable and to take time out of your busy schedule really shows how much this project and the waterfront means to you. Taking time to engage with the study team is a critical part of collaboration and team building and is a required step in the NEPA process. The Corps requests that any written comments you have regarding the scope of the environmental analysis and alternatives that we

should consider during this study and for the NEPA analysis be provided by October 21st 2020. You can send scoping comments by email to SFWFRS@USACE.ARMY.MIL or send physical mail to Ms. Anne Baker at 450 Golden Gate Avenue, 4th Floor, San Francisco, California 94102. You may also contact the Port of San Francisco's Port Resilience Office Lindy Lowe, who can be reached by email at lindy.lowe@sfport.com. Thank you to our presenters and partners. If you would like more information, please feel free to reach out to the team through the methods posted on this slide. Thank you all once again for attending.



NEPA scoping period begins for USACE/Port Flood Study

The USACE/Port Flood Study is one of several coordinated waterfront resilience activities part of the Port's [Waterfront Resilience Program](#) being undertaken in partnership with federal, state, and local agencies to plan for anticipated seismic activity, flooding, and future sea level rise.

As the federal study continues, USACE has initiated an early scoping period as part of the National Environmental Protection Act (NEPA) process. During this period, comments will be collected to help inform the USACE assessment of flood risk along the waterfront. Learn more about how to get involved below or on the USACE's [website](#).

Key Dates

USACE requests written comments regarding NEPA scoping be received by **Oct. 21, 2020**. Written comments may be emailed to SFWFRS@usace.army.mil or mailed to: Ms. Anne Baker, 450 Golden Gate Ave, 4th Floor, San Francisco, CA 94102.

In addition, there will be two opportunities for submitting comments during a pair of USACE-led virtual public meetings on: **September 16, 6-7:30 p.m** and **September 17, 1-2:30 p.m**. If interested, please RSVP at SFWFRS@usace.army.mil, and a WebEx meeting link will be sent to you.

Learn about the San Francisco Waterfront Flood Resiliency Study!

NEPA Early Scoping

PUBLIC MEETINGS

for Community Feedback

Wednesday, Sept 16
6:00 - 7:30 PM
[Click here for virtual meeting.](#)

Thursday, Sept 17
1:00 - 2:30 PM
[Click here for virtual meeting.](#)

Call in number: 888-326-5884
Access Code: 3402929
Security Code: 2020
Questions? Contact SFWFRS@usace.army.mil



sfportresilience.com



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Early Scoping -- Fall 2022

MEMO

To: Waterfront Resilience Program
From: Civic Edge Consulting, RDJ Enterprises, Andrea Baker Consulting, InterEthnica
Date: February 2023
RE: WRP Draft Waterfront Adaptation Strategies Public Engagement (Phase B) Summary Report

Overview

This round of Draft Waterfront Adaptation Strategies Public Engagement (Phase B) was conducted from mid-October to early December 2022 and focused on the public rollout of the Draft Waterfront Adaptation Strategies. In addition to introducing the seven Draft Strategies (Strategies A, B, C, D, E, F, and G) and sharing how they were informed by more than five years of citywide community feedback, Phase B Engagement sought to understand public sentiment and priorities as related to the Draft Strategies.

Engagement and outreach included eight online community meetings, two in-person events in the Southern Waterfront, a series of walking tours in each waterfront geography, as well as focus groups, presentations to targeted Community Based Organizations, and presentations to Community Advisory Committees. The approved work plan for fall and winter 2022 Phase B engagement is [linked here](#).

High-level summary of engagement:

- **26** total engagement events
- **16** public engagement events
- **502** total participants to all events
- **3,023** views of Draft Adaptation Strategies webpages on [sfport.com/wrp](#)
- **3,643** views of StoryMaps (as of 12/12/22)
- **155,297** individuals who saw a social media ad
- **170,000+** people who viewed content related to the Draft Adaptation Strategies across channels

Quick Links

- [Demographic Breakdown of Community Engagement](#)
- [What We Heard: Overall](#)
- [What We Heard: Citywide Meetings and Focus Groups](#)
- [What We Heard: Islais Creek / Bayview](#)
- [What We Heard: Mission Creek / Mission Bay](#)
- [What We Heard: Embarcadero](#)
- [Other Engagement Channels](#)
- [Recommendations For Future Engagement](#)
- [By The Numbers](#)
- [Promotion](#)
- [Appendix](#)
 - A: [Phase B Presentation Tracker with high-level event information](#)
 - B:



- C: Links to Reporting Materials from Digital Community Meetings

Demographic Breakdown of Community Engagement

As the demography breakdown reflects, overall outreach focused on ensuring Southern Waterfront residents were aware of and in attendance at events. In addition to the two community meetings and two walking tours that were hosted in each geography, the Port hosted two in-person events in the Southern Waterfront providing additional engagement opportunities for community members in this geography. This is reflected by the higher percentage of registered participants from the Southern Waterfront (24%) as compared to Central and Northern Waterfront combined (17%). Broad citywide outreach was effective, resulting in 41% of registered participants to events coming from non-Port-waterfront adjacent neighborhoods throughout San Francisco. A large percentage of registered participants (18%) live outside the City despite no dedicated outreach to these areas. This indicates an interest in the WRP from the broader Bay Area, likely due to working or frequently visiting the San Francisco waterfront.

Phase B outreach for events resulted in higher percentages of engagement from some priority populations than in the previous round of engagement for the Program (Phase A Summer Survey). People identifying as Black/African American represented 14% of registered participants and people identifying as Asian/Pacific Islander represented 18%. The percentage of people identifying as Latino/a who registered for events (3%) was lower than engagement in previous rounds, but higher for interest in participating in focus groups (16%).

The data below is pulled from Eventbrite registration data. It shows who registered to attend events, not necessarily who attended. It does not include participants who attended events without registering or attendees at non-public facing events (Focus Groups, CBO share-out presentations, CAC meetings).

Demographic Breakdown of Registered Participants to Public Events

What Neighborhood Do You Live In?**			
	Count	Total	
Northern Waterfront	46	548	8%
Southern Waterfront	141	548	24%
Central Waterfront	49	548	9%
Other SF Neighborhoods	216	548	41%
East Bay, North Bay, Peninsula	96	548	18%

**Northern Waterfront includes: North Beach, Embarcadero, Rincon Hill, South Beach; Southern Waterfront includes: Bayview/Hunters Point, Visitation Valley; Central Waterfront includes: Mission Bay, Potrero Hill; Other SF Neighborhoods includes all other SF neighborhoods that are not Port-Waterfront adjacent.

What Is Your Race or Ethnicity?					
	Count	Total	Phase B Events	Phase B Focus Group Interest	Phase A Survey (Summer 2022)
American Indian/Native Alaskan	2	548	< 1%	<1%	<1%
Asian/Pacific Islander	97	548	18%	26%	16%

Black/African American	76	548	14%	10%	3%
Latino/a	19	548	3%	16%	6%
White/Caucasian	218	548	40%	34%	63%
Multiple Ethnicities	34	548	6%	5%	4%
Other/Prefer Not to Say	102	548	19%	<1%	7%

Phase B Outreach for community member focus groups sought to engage with citywide residents across the following segments: youth (ages 16-24), general waterfront users, and people who work along the waterfront. Outreach and recruitment efforts invited interested participants to complete a short screener that asked a series of demographic questions. This screener methodology is unique to the focus groups. Given the target segments, the reader should consider how those specific populations skew towards specific groups. The tables below show both the demographic breakdown of those who signed up for a focus group and those who were selected, invited, and participated. For a full breakdown of focus group demographics, including information on age, neighborhood, and income, refer to the Focus Group Report in the appendix.

Demographic Breakdown of **Interested** Focus Group Participants

Which of the following do you most identify with?			
Indigenous/Native American	2	280	< 1%
Asian/Pacific Islander*	80	280	26%
Black/African American	28	280	10%
Hispanic/Latino/a/x	46	280	16%
White, Non-Hispanic	96	280	34%
Middle Eastern / North African	6	280	2%
Multiracial	15	280	5%
Prefer not to state/skipped question	7	280	< 1%

Demographic Breakdown of **Selected** Focus Group Participants

	General Waterfront Users	Industry	Youth	Totals
Indigenous/Native American	0	1	0	1
Asian/Pacific Islander*	3	2	6	11
Black/African American	2	2	1	5
Hispanic/Latino/a/x	3	1	2	6

White, Non-Hispanic	2	4	0	6
Middle Eastern / North African	0	0	0	0
Multiracial	1	1	1	3
Prefer not to state/skipped question	0	0	0	0
Total Participants	11	11	10	32

*Asian / Asian Americans includes representation from Chinese, Filipinx, Vietnamese, and East Indian backgrounds.

What We Heard: Overall

- Waterfront wide, community members indicated that **flooding around where they live and work, impacts to community safety, and disruption to transportation or waterfront access** are their top sea level rise related concerns.
- Community members **feel connected** to the waterfront. Their questions and discussion points highlight their connection to not only live, work, and access to open space, but the **cultural value the waterfront holds** for a variety of communities.
- **Community members want to see 7' of sea level rise addressed in whatever strategies are ultimately implemented.**
 - Community members indicated that strategies that recommended **lower intervention (A and B) or used a lower projected rate of sea level rise (C and D) did not sufficiently address the risks community members were concerned about.** These strategies consistently received a lack of support across the geography-specific meetings.
 - In some instances, **there was more openness to Strategy D, which is adaptable to higher rates of sea level rise, but community members said they needed more information about how the adaptation would happen and over what timeframe.** Some community members indicated support based on an assumption that Strategy D would cost less.
 - **In the community member focus groups, participants saw C-D as good starting points and potential short-term solutions** while some combination of longer-term strategies (preference for E and F) are implemented or funded.
- **Overall, there was no strong preference for any one strategy over another when selecting between strategies E, F, and G. Community members consistently said they needed more information about all of them.**
 - Strategy E was supported overall and seen as a practical approach though there were concerns about construction impacts and whether this approach would maximize opportunities.
 - Strategy F received the most “need more information” responses mainly related to the safety and ecological impacts of the tide gates and operation of other flooding infrastructure.
 - **Strategy G received the most competing feedback. Community members overall supported aligning with nature conceptually, but had concerns about the specific applications of the strategy, its general feasibility and implications for equity. In community focus groups specifically, a combination of strategies E and F was more strongly supported. The concerns outweighed the possible benefits for Strategy G.** See below for geography-specific takeaways about each strategy.

- Community members raised many concerns in response to the draft strategies. **Common concerns ranged from equity and environmental justice implications to technical practicalities, to cost/feasibility.**
 - See below for geography-specific concerns and a list of common questions.
- Across all geographies, community members were **excited and pleased to see nature-based approaches, like eco seawalls, incorporated into all of the strategies. This remains a high priority for community members across all strategies.**
- Community members are **very focused on quantifying cost as a way to understand feasibility before commenting on preferences. Community members requested transparency in how costs would factor into decisions.** Questions related to cost were asked at every engagement event.
 - Community members expressed wanting to understand Port and City economic considerations. There were sentiments that the Port may be trying to **“sell” the community on ideas without complete information around impacts and costs.**
 - For some community members, a higher cost is associated with a more comprehensive plan and therefore is important to understand. For others, **proceeding with a plan that could never receive adequate funding was not logical** and community members asked if lower-cost options were being explored.
 - Community members also had comments and questions around the politics of protecting buildings such as Chase Center or UCSF Mission Bay and if economic factors were the reason for certain strategies being suggested in certain geographies.
 - Coupled with cost were questions and concerns about funding. Specifically, community members wanted to know **from where and how funding would be secured** (apart from USACE) and the implications to taxpayers.
- Community members were focused on the **practicalities and specifics of the implementation of the strategies and struggled to stay at a more conceptual level of discussion.**
 - Community members asked **specific technical questions** like how pumping stations would be powered and operated, how the city’s combined sewer system would be altered, and how seawalls, levees, and berms would affect groundwater rise.
 - Community members **asked for more information about the specific impacts to daily life** in their community (what transit lines would be impacted, which industries or small businesses would need to relocate) and the ways these impacts will be addressed.
 - **Community members also asked for specifics about the potential benefits** – how many jobs would be created, what kinds of specific open spaces would be available.
 - Community members were particularly **interested in data showing who and what will be affected so they can better understand equity impacts.**
- **Community members, particularly in the Southeast, are expecting a unified city/state/federal approach to sea level rise resilience.** They do not delineate between what is Port property or not and want to hear adaptation and resilience plans for the full waterfront in their neighborhoods.
- When polled about how they felt after attending an online Community Meeting, **the majority of respondents indicated they would attend another event to learn more and give feedback and that they had more questions.** Attendees at walking tours and in-person events expressed similar interest in continuing to stay involved and wanting further opportunities to give feedback.
- There was a clear desire for **community-centered decision making around implementation plans and goals.**
 - Participants want to know how their input will shape outcomes.

- There was an overall **sentiment of pride that San Francisco was taking steps to address these complicated issues and looking at long-term strategies.**
 - This was coupled with a desire to see action sooner rather than later. The 20-year time horizon before any construction would happen felt long to community members in attendance.
 - Community members also felt that smaller-scale, near-term projects should have space for community input and would help add protection while waiting for larger strategies to be completed.

Themes for consideration in hybridization process:

- Community members want an approach that provides defense against higher rates of sea level rise.
- Community members want an approach that is safest against risks such as infrastructure failure and contamination.
- Community members want engineering with nature principles prioritized no matter the approach.
- Community members are open to change but need more information about the specific impacts in their communities.
- Preserving roads, bridges, and buildings exactly as they are today is not a top priority overall.
- Community members want to see transportation, connectivity, and access to the waterfront expanded. Impacts to access during construction is a top concern. Concerns are very high regarding gentrification, displacement, and contamination. The hybridized strategy must address how the Port will mitigate these concerns.
 - These concerns are made more sensitive because historically promises have been made and not kept. For example, southeast residents were assured that soil contamination issues in the Hunters Point Shipyard would be addressed and that has not happened. The health issues related to contamination adversely impact low-income and black and brown communities that are the most at risk.

Most common questions/concerns:

These questions should have an updated/expanded response in the next rounds of community engagement.

- What resilience planning is happening beyond the Port's southern boundary?
 - Community members, particularly in Bayview/Hunters Point, want to understand the City's comprehensive approach.
- How will contamination be addressed or mitigated in the Southern Waterfront?
- What will be done to ensure that public realm improvements do not lead to gentrification and displacement of southeast neighborhoods?
- Why is development occurring along the waterfront in areas the Port knows have high flood and earthquake risk?
- How will opportunities for local businesses and workers be prioritized?
- What are the costs of the strategies and how will funding for adaptation be secured?
- How and why are different sea level rise estimates being used?
- How will community input affect decision-making?

What We Heard: Citywide Meetings and Focus Groups

The two “Citywide” online community meetings received the Port Commission presentation instead of a geography-specific presentation. Given there was less detail about the specific strategies in this presentation, feedback/comments were focused on overall process and more general questions related to adaptation planning.

Feedback from the three community focus groups held in December is also incorporated below. See the appendix for the comprehensive focus group report. Among other insights, the focus group report breaks down perceived benefits and concerns by strategy across the following categories: jobs, transportation/daily life, safety/effectiveness, costs/timing, environmental/nature, equity/environmental justice, and look/feel.

- Concerns about:
 - Unified city approach and what happens beyond Port jurisdiction
 - How existing development projects are planning for sea level rise
 - Length of time until construction (2040 feels far away)
 - Equity in relation to the following:
 - community input and community-centered decision making
 - environmental justice implications
 - The level of burden/impact by area: specifically strong equity concerns were raised about providing the Embarcadero 7’ feet protection before Mission Bay/Islais Creek. Participants understood the economic importance of the Embarcadero, but still saw this as a prioritization of the wealthier, whiter neighborhoods.
 - Questions ranged from costs, lessons learned from other jurisdictions, details about sea level rise projections, details about pumping stations, and specifics around workforce opportunities.
- Excitement about:
 - San Francisco being a leader in resilience planning work along a waterfront
 - Opportunities that implementing an Adaptation Strategy could create including:
 - waterfront access, specifically community-driven ideas on how spaces could honor the history and current state of waterfront culture, be safe and useful for local communities in the present, and sustainable in the future
 - identifying existing community assets and priorities to inform changes to public space
 - adaptation planning as a potential mechanism to redress past harms and pursue racial/social equity
- As in the geography-specific meetings, attendees overall felt that strategies that recommended lower intervention (A and B) or used a lower projected rate of sea level rise (C and D) did not sufficiently address the risks community members were concerned about.
 - **In the community member focus groups, there was interest in understanding more about C-D and the associated costs. Some participants saw C-D as good starting points to provide a phased approach while some combination of longer-term strategies are implemented or funded.**
- Strategy E - Hold the Line
 - In polling during community meetings, this strategy was either generally supported or people said they needed more information.

- Focus Group participants felt this strategy would be beneficial because it would lead to a waterfront that is similar to today while having the least disruption to waterfront access once completed. However, they also expressed concerns about disruption to daily life during the length of time it would take to complete.
- Strategy F – Manage the Water
 - In polling during community meetings, the majority of people said they needed more information about this strategy before indicating preferences.
 - Focus group participants:
 - had concerns about the failure of major infrastructure like tide gates and the negative impacts to wildlife.
 - perceived this strategy to be easier or faster to implement than Strategy E.
 - noted that this strategy would have the least disruption to daily life during construction which would be a benefit, but was perceived to change access to the waterfront at completion (a concern).
- In general, focus group participants saw some combination of E and F as a logical approach across the entire waterfront. They expressed concerns about inequities related to two implementation timeframes (2040 and 2090) proposed for these strategies in the Southern Waterfront in comparison to the Embarcadero (defends against 7ft by 2040).
- Strategy G - Align with Watersheds
 - In polling during community meetings, this strategy received the most outright support.
 - For focus group participants however, this strategy posed the biggest concern and received the least support. Though working with natural water patterns was supported in concept, participants were skeptical that it provided enough defense and that it would be implemented fairly. The expressed concerns for how this strategy would negatively impact jobs, daily life, the environment, look and feel, and safety. Ultimately, the concerns they had about Strategy G outweigh potential benefits.
- Bay Fill
 - When asked specifically about bay fill, focus group participants were open to bay fill as an option to reduce disruption to the Embarcadero roadway. They saw the Embarcadero roadway as a key asset to protect. Concerns about bay fill’s long-term effectiveness and performance in an earthquake were raised, but most people were open to using bay fill as a way to expand public access and maintain transportation corridors.
- Timelines
 - Community members, specifically in the community focus groups, supported the Embarcadero receiving 7’ of protection by 2040, but there were mixed emotions about other areas of the waterfront not receiving 7’ of protection until 2090.
- Ranking Priorities from Community Meeting Polling:
 - The highest ranked options were “Improved Bay ecology and habitat” and “Improved public access to the water.”
 - The lowest ranked options were “Workforce opportunities for local people and businesses.”
- Demographic Information from Citywide Event Registrations:

What Neighborhood Do You Live In?			
	Count	Total	
Northern Waterfront	18	112	16%
Southern Waterfront	5	112	4%

Central Waterfront	7	112	6%
Other SF Neighborhoods	65	112	58%
East Bay, North Bay, Peninsula	17	112	15%

What Is Your Race or Ethnicity?			
	Count	Total	
American Indian/Native Alaskan	1	112	1%
Asian/Pacific Islander	11	112	10%
Black/African American	1	112	1%
Latino/a	5	112	4%
White/Caucasian	66	112	59%
Multiple Ethnicities	6	112	5%
Prefer Not to Say	22	112	21%

Participants in the Community Focus Groups represented a broad range of ages, incomes, neighborhoods, and ethnicities/races. The focus groups targeted three categories of waterfront users: General Waterfront Users, Waterfront Workers (Industry), and Youth (ages 16-24). See full demographic breakdown and learnings in “Community Focus Group Top-Line Report and Demographics” in appendix.

What We Heard: Islais Creek / Bayview

- Concerns about:
 - Local workforce opportunities not coming to fruition
 - Gentrification and displacement both from Adaptation Strategy implementation and from open space improvements
 - Contamination and lack of follow-through to address mitigation and clean-up
 - Lack of coordination on resilience efforts south of Heron’s Head Park
 - Questions included: How will local people and businesses be prioritized for job opportunities? How is toxic soil/water/air being mitigated? How will displacement be avoided? What is being done south of Heron’s Head?
- Excitement about:
 - Increased access to water recreation
 - Restoring natural wetlands
 - Generating economic opportunities and job creation
- Strategy E - Hold the Line
 - There were few specific comments about this strategy
 - A slight majority of attendees indicated in polls that they would be in favor of more transformational changes in this geography instead of prioritizing keeping the current shoreline, streets, and buildings as they are.
- Strategy F - Manage the Water
 - This strategy consistently received the most “need more information” responses in polling.
 - Community members indicated support for the possibility of jobs and economic opportunities that could come with the building, operations, and maintenance of infrastructure.

- Community members said they need more information about the tide gates and lagoons and expressed concerns that relying on infrastructure means they could fail with potentially disastrous consequences, as has happened in other cities (i.e. Katrina).
- Strategy G - Align with Watersheds
 - This strategy received some strong comments of support but also elicited the most questions and expressions of concern.
 - Transformative options that align with natural patterns were seen by some as providing the longest-term defense and therefore the “maximum” protection. Aligning the City’s defense strategy with nature’s rising sea levels was conceptually received positively.
 - Concerns about “retreat” approaches leading to a loss of jobs and industrial space, negative effects on housing, public access improvements leading to gentrification, and individuals bearing the brunt of adaptation costs in this strategy were also shared.
- Ranking Priorities from Community Meeting Polling:
 - The highest ranked options were “Enhancing and restoring watersheds and native marsh habitats” and “Limiting actions that need to be taken by individuals.”
 - The lowest ranked options were “Preserving the current footprint of the Southern Waterfront” and “Limiting funds spent.”
- Demographic Information from Islais Creek/Bayview Event Registrations:

What Neighborhood Do You Live In?			
	Count	Total	
Northern Waterfront	6	219	3%
Southern Waterfront	103	219	47%
Central Waterfront	3	219	1%
Other SF Neighborhoods	79	219	36%
East Bay, North Bay, Peninsula	28	219	13%

What Is Your Race or Ethnicity?			
	Count	Total	
Asian/Pacific Islander	46	219	21%
Black/African American	60	219	27%
Latino/a	2	219	1%
White/Caucasian	64	219	29%
Multiple Ethnicities	10	219	5%
Prefer Not to Say	37	219	17%

- Demographic breakdown of attendees for District 10 Community Open House on 11/9/2022
 - Total attendance: 47
 - Number of people reporting their ZIP code: 39
 - Attendees reported ZIP codes
 - 94124 (Bayview/Hunters Point) – 35
 - 94109 (Polk Gulch/Nob Hill) – 1
 - 94127 (Twin Peaks) – 1
 - 94110 (Outer Mission) – 1
 - 94131 (Diamond Heights) – 1

What We Heard: Mission Creek / Mission Bay

- Concerns about:
 - Impacts to transportation and mobility
 - Sustainable operation and maintenance of infrastructure
 - Impacts on the sewer system
 - Questions included: How would a floodable district work? What power source will pumping stations use? Who will operate tide gates and is there a back-up generator if power should fail? How will the current sewer system be impacted?
- Excitement about:
 - The range of solutions being considered
 - Approaches beyond seawalls being considered
 - Nature-based options that are not “over-engineered”
- Strategy E - Hold the Line
 - A slight majority of community members polled supported keeping the current shoreline, streets and buildings along the Mission Bay waterfront as they are, though almost as many participants favored more transformational changes to land use.
- Strategy F - Manage the Water
 - Community members were fairly evenly split between supporting this approach, having concerns about this approach, and needing more information.
 - The vast majority of questions were related to this strategy.
 - Questions focused on whether the changes to bridges would affect vessel traffic, how the combined sewer system would be impacted by tide gates, and how current development projects are taking risks into account.
- Strategy G - Align With Watersheds
 - Community members were fairly evenly split between supporting a nature-based approach and having concerns about the transformational scale of change.
- Ranking Priorities from Community Meeting Polling:
 - Community members were split over priorities. The highest ranked options were “Preserving the existing buildings, open spaces and transportation corridors” and “Transforming public spaces through multiuse and floodable spaces.”
 - The lowest ranked options were “Limiting adaptation actions that need to be made by individuals” and “Limiting funds spent.”
- Demographic Information from Mission Creek/Mission Bay Event Registrations:

What Neighborhood Do You Live In?			
	Count	Total	
Northern Waterfront	5	116	4%
Southern Waterfront	18	116	16%
Central Waterfront	30	116	26%
Other SF Neighborhoods	42	116	36%
East Bay, North Bay, Peninsula	21	116	18%

What Is Your Race or Ethnicity?			
	Count	Total	
American Indian/Native Alaskan	1	116	1%
Asian/Pacific Islander	22	116	19%
Black/African American	11	116	9%

Latino/a	5	116	4%
White/Caucasian	44	116	38%
Multiple Ethnicities	7	116	6%
Prefer Not to Say	26	116	22%

What We Heard: Embarcadero

- Concerns about:
 - Changes to mobility and transportation networks
 - Traffic disruption
 - The feasibility of options presented and how they will be funded
 - Questions included: how an elevated Embarcadero promenade would work, pros and cons of bay fill on the environment, and whether sea level rise estimates are expansive enough
- Excitement about:
 - Possibilities to expand pedestrian access
 - Possibilities to reduce car traffic
- Strategy E - Hold the Line
 - Received the most support in polling because of the balance of using targeted, limited bay fill and delivering a generous promenade.
- Strategy F - Manage the Water
 - Respondents to polls were evenly split between either supporting this approach or indicating they needed more information.
- Strategy G - Align with Watersheds
 - There were concerns about the more limited public promenade, rather than the narrowed roadway.
- There were not pronounced concerns about using bay fill itself. Instead, community members were most concerned with the implications to the public space and roadway. Community members supported an expanded pedestrian realm and also wanted to maintain roadway width as much as possible for public transportation and vehicles.
- Ranking Priorities from Community Meeting Polling:
 - The highest ranked options were “Expanding pedestrian public access opportunities along the Embarcadero” and “Using targeted bay fill to minimize construction disturbance,” followed by “Preserving the historic nature of the Embarcadero.”
 - The lowest ranked options were “Limiting funds spent now” and “Redesign the entire roadway limiting the amount of bay fill needed.”
- Demographic Information from Embarcadero Event Registrations:

What Neighborhood Do You Live In?			
	Count	Total	
Northern Waterfront	17	101	17%
Southern Waterfront	7	101	7%
Central Waterfront	9	101	9%
Other SF Neighborhoods	38	101	38%
East Bay, North Bay, Peninsula	30	101	30%

What Is Your Race or Ethnicity?			
	Count	Total	

Asian/Pacific Islander	18	101	18%
Black/African American	4	101	4%
Latino/a	7	101	7%
White/Caucasian	44	101	44%
Multiple Ethnicities	11	101	11%
Prefer Not to Say	17	101	17%

Other Engagement Channels

StoryMaps

This interactive digital storytelling platform communicated risks, reviewed community input to date, and presented the Draft Waterfront Adaptation Strategies in detail. Surveys embedded at the end of each section asked community members what excited or concerned them and how they would rank potential opportunities.

Launched October 11, by December 12, the StoryMaps had garnered 3,643 page views and 77 total survey responses. Due to the breakdown in demographics and the low number of total responses, feedback from the StoryMaps should be taken into consideration only as part of the larger community feedback indicated above.

StoryMaps Respondent Demographics

Of the 40 individual respondents who answered the ethnicity question, 68% (28) identified as White/Caucasian. 32% (12) identified as another ethnicity with the breakdown as follows: 16% (2) Asian/Pacific Islander, 16% (2) Black/African American, 9% (1) Latino/a, 25% (3) Multiple Ethnicities, and 33% (4) other or prefer not to say. We do not have demographic information about the thousands of people who viewed but did not respond to surveys.

Of the 41 individual respondents who answered the question about where they lived, the breakdown is as follows: 27% (11) live in the East Bay, North Bay or Peninsula, 7% (3) Southern waterfront, 10% (4) Central waterfront, 12% (5) Northern waterfront, and 44% (18) other SF non-Port-waterfront neighborhoods. Most responses were from community members not living in the neighborhoods that will be most affected.

StoryMaps Feedback

Overall, the responses from the Storymaps did not show any major differences from the feedback gathered from the engagement events. Across the three geographies, respondents indicated top priorities of nature-based solutions and public access both in their comments and the ranking of opportunities.

- For Islais Creek/Bayview the top priority was “Prioritize enhancing and restoring watersheds and native marsh habitats” (5 of 11 people).
- For Mission Creek/Mission Bay the top priority was “Focus on enhancing natural watersheds and the Bay’s ecology” (4 of 10 people).
- For the Embarcadero the majority of people (7 of 10) indicated “Expand pedestrian public access opportunities on the Embarcadero” as either their first or second priority.

In comments, respondents raised similar concerns to community meeting attendees around displacement, long time horizons, funding, and technical practicalities.

StoryMaps Total Views	3,643
Introduction Survey	43
Islais Creek / Bayview Survey	11
Mission Creek / Mission Bay Survey	10
Embarcadero Survey	10
Feedback / Last Thoughts Survey	3

Responses downloaded on 12/09/22 can be found [here](#)

CAC Presentations + Port Advisory Focus Group

In addition to citywide community engagement, the Port continued to engage Citizen Advisory Committees and partners.

On October 14, the Port hosted the third in a series of focus groups with Port constituents, community leaders, and citywide residents ([notes linked here](#)). The October focus group shared the Draft Waterfront Adaptation Strategies and followed up on previous August and September focus groups that shaped the development of community-focused materials used in the October public rollout.

Port staff presented to the Southern Advisory Committee on December 7 ([notes linked here](#)) and the Mission Bay Citizens Advisory Committee on December 8 ([notes linked here](#)).

Equitable Engagement

As part of the Port's ongoing commitment to equity, the WRP's community engagement and outreach strategies were responsive to the needs and priorities of San Francisco's waterfront communities and targeted community groups, including youth, seniors, and other communities in the Southern Waterfront who have been historically excluded from planning processes. Learnings from Phase B engagement will help enhance future WRP outreach and engagement to these groups. See recommendations below.

In-Language Engagement

To make information about the Draft Waterfront Adaptation Strategies available in languages community members are most comfortable using, in-language Spanish and Chinese communications were developed as part of engagement. These in-language materials included:

- Adaptation Strategies Explainer Video ([Spanish](#) | [Chinese](#))
- Downloadable PDF fact sheets for each of the seven Draft Waterfront Adaptation Strategies
- Webpages listing the full calendar of engagement events, with a sign-up form to register for events with a request for a translator ([Spanish](#) | [Chinese](#))
 - These in-language engagement webpages included links to Draft Waterfront Adaptation Strategy fact sheets, a sign-up form for translation at events, and the Adaptation Strategies explainer video
- Waterfront posters with designated QR codes leading to the engagement page to sign up for events and review materials
 - These posters were up October 22 to December 10 and received a combined total of 256 scans; see table summary included in the "By the Numbers" section below.
- In-language social media posts

Recommendations for Future Engagement

Graphics and Communication

- Use maps that community members can more easily identify with (e.g., Google Maps).
- Include street names, landmarks, and compass directions on maps.
- Use hypothetical examples to communicate potential risks, impacts, and opportunities (e.g., x person lives here, needs to commute to y location daily, a possible adaptation plan would result in Z impacts).
- Develop and share clear communication around cost considerations and funding.
- Communicate data and justification for varied timelines for adaptation in the Embarcadero geography.
- Share more specific data around impacts to vulnerable communities, that is, low income, folks with different abilities, and disabilities, children, and people of color.
- Address the potential impacts to daily life in visuals and messaging when sharing the hybrid approaches, tie these also to potential opportunities.
- Communicate work around Embarcadero Early Projects and other near-term actions as connected to longer-range adaptation planning to make it easier for community members to connect with.
- Work with City agencies to compile and share information about resilience efforts beyond Heron's Head Park; co-host public events in the Southern Waterfront with other City agencies to show comprehensive City efforts to address sea level rise in the southeast.
- Lead next rounds of engagement with what we heard this round and how the hybridized strategy is responsive to it.
- In next rounds use renderings at ground level with more detail and from perspectives the public can relate to, to communicate what changes to the waterfront could look like.
- Update FAQ with most common questions from this round of engagement and promote.
- Add a dedicated email address for the WRP (wrp@sfport.com) to the website and other communications for ongoing questions.

Process

- Clearly identify points for input versus information sharing. In instances where information sharing is the primary goal, identify desired outcomes and ways to measure impact.
- Develop a clear understanding of the demographics of communities who currently reside in the various waterfront geographies and align demographic targets with this understanding and dedicate budget appropriately to ensure successful reach. Include benchmark check ins to assess reach and adapt when needed.
- Identify priority community groups to engage based on program objectives and set goals for participation and input gathered for each target group.
- Identify individuals within key community groups with influence and reach to engage and leverage in outreach efforts (e.g., partner with these influencers to develop targeted WRP materials and short videos that carry higher-impact information and messages to specific segments in the community).
- Build in more time in the Program schedule for development of public facing materials, publicity, and implementation.

- Build in engagement touchpoints that can return to the same group of folks with updates and new opportunities for input.
- Identify opportunities for community-driven decision making.

Equity

- Clearly define equity objectives related to engagement and metrics to capture including demographic information, and track outreach efforts against those metrics.
- Capture and share agreed upon demographic information consistently.
- Ensure the Port and PEC team align on which demographics within each geography are viewed as equity priority groups for the Port/WRP and engage them in targeted ways those groups can fully participate in; identify where/how the program could elevate the voices of the equity priority groups.
- Allow space for adaptive engagement, for example tailoring engagement based on a specific groups interest or needs.
- Create collaborative opportunities for community-driven decision making where it makes sense to do so, e.g., not related to safety-based decision, but on use, look and feel, and ideas to minimize impacts.
- Continue to create opportunities for deep conversations in smaller groups.
- Compile and share specific data about who works within and uses areas that would be impacted.
- Identify gaps in engagement done to date and direct resources to fill those gaps.
- Include budget for direct engagement with Spanish and Chinese limited English proficient (LEP) communities. Latinx and Chinese engagement remains low compared to city population demographics because of lack of budget for dedicated outreach.
- Provide a recording of community meeting presentations online with an option to “leave a question” to be answered by Port staff.
- Build in more time in the Program schedule for development targeted public facing materials, translations, and geography-specific publicity.

Schedule of Events

- Ground type and cadence of events in clearly articulated objectives.
- Continue hosting event types that were popular (i.e. waterfront walking tours) adapting the content to meet evolving Program objectives.
- Spread out events over more time so as not to compete with one another.
- Consider hosting one in-person and one online community meeting per geography.
- Continue leveraging smaller group discussion or focus groups as venue for deeper conversations around specific tradeoffs.

Promotion

- Post WRP Events to main sfport.com calendar.
- Leverage Port partners like the Exploratorium and key CBO partners to publicize events.
- Build in more time for social media ad approval. Sea level rise was frequently flagged as a political ad and required additional review.

- Elevate effort for cultural adaptation of ads on ethnic media channels.
- Use activations, markers, messaging along the waterfront to raise public awareness. Consider using public transportation ad space to target non waterfront communities.
- Provide printed handouts of future engagement events for low-tech community members.

StoryMaps

- Shorten and distill content as much as possible.
- Do not embed surveys throughout, survey should be in its own section.
- Broaden engagement from diverse communities or supplement with other ways of delivering the information more readily used by diverse audiences.

By The Numbers

This section provides detailed information around engagement by promotion type. When taking into account website views, Eventbrite page views, social media engagement, and event registration and attendance, over 170,000 people viewed content related to the Draft Waterfront Adaptation Strategies.

Below is a breakdown of attendance by engagement activity type. Note: The table below does not include attendance to the rescheduled Embarcadero Walking Tour #2 (February 4, 2023).

Engagement Attendance by Event Type

Event Type	Number of Attendees
Digital Community Meetings*	159
Waterfront Walking Tours*	122
Southern Waterfront In-person Community Events*	99
CBO Focus Group #3	10
CBO Share Out Presentations	67
Port Advisory Focus Group	13
Community Focus Groups (3)	32
Total	502

*Publicly promoted events

StoryMaps Total Views as of 12/12/22	3,643
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Port Website

Information about the Draft Waterfront Adaptation Strategies and communications about engagement events were posted to the WRP landing page and newly created pages within Port website. The table below summarizes content and metrics for content on the WRP pages of the website.

Page Title and Link	Content	Page Views (Oct. 12– Dec. 13)
	Total	3,023
sfport.com/wrp	Posted adaptation strategies “explainer video”	1,878

	Added links to: • StoryMaps • Draft Waterfront Adaptation Strategies page • Engagement page • San Francisco Chronicle	
sfport.com/wrp/waterfront-adaptation	Description of Draft Waterfront Adaptation Strategies and timeline for developing a Draft Waterfront Adaptation Plan by summer 2023 Links to: • Individual strategy fact sheets • Adaptation FAQ • StoryMaps • Engagement page	909
sfport.com/wrp/our-waterfront	Calendar of two months of in-person and online community events with registration links Adaptation Strategies “explainer” video Links to: • Chinese in-language copy of page • Spanish in-language copy of page • StoryMaps	1,362
sfport.com/wrp/our-waterfront-ch	In-language Adaptation Strategies “explainer” video In-language calendar of two months of in-person and online community events with in-language sign-up form for translation at events Links to in-language individual strategy fact sheets	407
sfport.com/wrp/our-waterfront-sp	In-language Adaptation Strategies “explainer” video In-language calendar of two months of in-person and online community events with in-language sign-up form for translation at events Links to in-language individual strategy fact sheets	755

In addition to these WRP-specific pages, the Draft Waterfront Adaptations were featured on the sfport.com homepage in the main carousel and linked to the WRP landing page at sfport.com/wrp.

Publicity around the Draft Waterfront Adaptation Strategies also drove overall traffic to all the Program webpages. There were 7,062 total views for all WRP webpages between October 12 and December 13.

Port Social Media

Between October 11 and December 12, 33 social media posts were posted across three social media sites (Facebook, Instagram, and Twitter) with customized content for each platform. Analytics of the Port's social media posts, including views, engagements, etc. are not visible to the WRP Engagement Team.

In addition, social media ads targeting San Franciscans (with audiences segmented by language) were run on Facebook and Instagram with the following results:

- 11 total ads (10 custom creatives; 1 boosted post)
- 509,243 impressions (number of times an ad was viewed)
- 155,297 reach (number of individuals who viewed an ad)
- 11,426 link clicks
 - Link click results contributed to the tallies of page views in other sections and can't be summed with them; they should be considered separately.
- 1,658 reactions
- 218 shares
- 69 comments
- In-language ads in Spanish ran from October 26 to December 6, displaying the Spanish Adaptation Strategies video and linking to the Spanish in-language landing page
 - 41,884 ad impressions in Spanish
 - 660 link clicks to Spanish engagement page
- In-language ads in Chinese ran from October 26 to December 6, displaying the Chinese Adaptation Strategies video and linking to the Chinese in-language landing page
 - 22,442 ad impressions in Chinese
 - 437 link clicks to Chinese engagement page
- \$5,050.81 total budget

Eventbrite

Ads promoting community events linked directly to the Port's Eventbrite where people could sign up for events. The table below summarizes pages views, event registrations, and WRP eNewsletter sign-ups collected on Eventbrite for the 16 public events from their page launch on October 11 to the last event date on December 8.

Event Page	Page Views	Event Sign-ups	Eventbrite Event Attendees	eNewsletter Sign-ups from Eventbrite Events
Total	8,465	633	380	264
Citywide Digital Community Meeting #1 (Tuesday, October 25)	417	88	40	50

Southern Waterfront Community Mixer - In-Person (Wednesday October 26)	279	24	34	0
Mission Creek / Mission Bay Walking Tour #1 (Saturday, October 29)	290	40	26	0
Islais Creek / Bayview Digital Community Meeting #1 (Tuesday, November 1)	292	27	12	16
Mission Creek / Mission Bay Digital Community Meeting #1 (Wednesday, November 2)	274	25	13	15
Citywide Digital Community Meeting #2 (Thursday, November 3)	253	12	6	7
Mission Creek / Mission Bay Walking Tour #2 (November 5)	312	17	15	3
Southern Waterfront Community Open House – In-Person (Wednesday, November 9)	670	100	65	23
Islais Creek / Bayview Walking Tour #1 (Saturday, November 12)	241	28	16	11
Embarcadero Digital Community Meeting #1 (Tuesday, November 15)	1,022	38	22	23
Embarcadero Walking Tour #1 (Saturday, November 19)	340	29	21	9
Mission Creek / Mission Bay Digital Community Meeting #2 (Tuesday, December 6)	1,312	46	29	19
Islais Creek / Bayview Digital Community Meeting #2 (Wednesday, December 7)	438	40	23	32
Embarcadero Digital Community Meeting #2 (Thursday, December 8)	1,857	34	14	18
Islais Creek / Bayview Walking Tour #2 (Saturday, January 21)*	198	45	24	17
Embarcadero Walking Tour #2 (Sunday, February 4)*	270	40	20	20

*Rescheduled from early December to early 2023 due to rain. Eventbrite data for the events is as of December 20.

Adaptation Strategies Explainer Video Views

A collaboration with SFGovTV produced a two-minute “explainer” video to describe the risks facing the waterfront and introduce the Draft Waterfront Adaptation Strategies. The video was developed in

English, Spanish, and Chinese. In addition to being featured on the WRP's Adaptation Strategies webpages, all three videos were posted on the Port's YouTube channel.

YouTube Views as of January 4, 2023:

- English – 514 views
- Spanish – 38 views
- Chinese – 33 views
- Total – 585 views

Facebook and Instagram Ad Views through December 10, 2023:

- English – 59,037 views
- Spanish – 6,471 views
- Chinese – 4,094 views
- Total – 69,602 views

It is important to note these platforms' view counts are defined differently and should not be measured against each other. YouTube counts "views" as 30 or more seconds, whereas Facebook and Instagram count "views" as 3 or more seconds.

Waterfront Posters with QR Codes

QR codes leading to the in-language versions of the community engagement page with links to sign up for events were added to waterfront posters placed on Port property and maps distributed at walking tours around Islais Creek / Bayview, Mission Creek / Mission Bay, and the Embarcadero.

The table below summarizes the QR code views:

Waterfront Geography	Language	Scans
Islais Creek / Bayview	Spanish	28
	Chinese	6
	English	79
	Subtotal	113
Mission Creek / Mission Bay	Spanish	85
	Chinese	15
	English	4
	Subtotal	104
Embarcadero	Spanish	10
	Chinese	5
	English	24
	Subtotal	39
Total		256

Total QR scans by language

Language	Number of Scans
Spanish	123

Chinese	26
English	107
Total	256

Promotion

Promotion featured a combination of digital, print, and in-person materials.

WRP Mailing List

Subscribers to the WRP mailing list increased from 3,711 at the time of the first mailing on October 17 to 4,243 total subscribers who signed up as part of event promotion and outreach by the December 20 mailing (532 additional subscribers). Links to the mailings are included below:

- [WRP eNewsletter #49](#) | Mailed October 17, 2022
- [WRP eNewsletter #50](#) | Mailed December 20, 2022
- [Phase B eBlast #1](#) | Mailed October 24, 2022
- [Phase B eBlast #2](#) | Mailed October 31, 2022
- [Phase B eBlast #3](#) | Mailed November 7, 2022
- [Phase B eBlast #4](#) | Mailed November 28, 2022

Port Social Media and Paid Ads

Between October 11 to December 12, 33 social media posts were posted across three social media sites (Facebook, Instagram, and Twitter) with customized content for each platform. Paid Ads were run in English, Spanish, and Chinese. See details above.

Waterfront Posters

Islais Creek / Bayview, Mission Creek / Mission Bay, and Embarcadero themed waterfront posters were put up on Port property along the waterfront. Posters were printed in Spanish, Chinese, and English with designated QR codes that connected to the corresponding in-language webpage with the full calendar of engagement events. See engagement numbers above. Copies of the final posters are uploaded to this [SharePoint folder](#).

Southern Waterfront-Specific Promotion

Leaders of Community-Based Organizations (CBOs) operating in or near District 10 were contacted via email and phone for each Southern Waterfront-Specific event. Events were posted locally on Nextdoor, in ABC's weekly newsletter, and on Instagram. December events were featured in the District Supervisor's public calendar. Registrants of previous Southern Waterfront-specific events were contacted via email to notify them of upcoming engagement events. Flyers were printed and distributed along the 3rd Street corridor, to neighborhood/community-based organizations, and to local libraries in Islais Creek/Bayview and Mission Creek/Mission Bay.

Swag

A reusable tote bag, featuring the Sea Level Rise Seal as a marker to projected sea level rise and promoting the main WRP landing page at sfport.com/wrp, was given away at the in-person events as an acknowledgement of people's time and participation. The tote bags will further raise awareness about sea level rise and the Port's leadership in addressing the waterfront risks within communities between engagement events.

Appendix

A: [Phase B Presentation Tracker with high-level event information](#)

B: [Community Focus Group Top-Line Report and Demographics](#)

C: Links to Reporting Materials from Digital Community Meetings

Geography	Meeting Date	Reporting Materials
Citywide	Tuesday, October 25, 6:00-7:30 PM	• Zoom recording (Pass code: !@eXgf3%) • Chat log • Q&A notes + screen shots of poll results
	Thursday, November 3, 12:00-1:30 PM	• Zoom recording (Pass code: Cg=UBw0&) • Chat log • Q&A note + screen shots of poll results
Islais Creek / Bayview	Tuesday, November 1, 6:00-7:30 PM	• Zoom recording • Chat log • Q&A note + screen shots of poll results
	Wednesday, December 7, 12:00-1:30 PM	• Zoom recording (Pass code: UAb7D&V4) • Chat log • Q&A note + screen shots of poll results
Mission Creek / Mission Bay	Wednesday, November 2, 6:00-7:30 PM	• Zoom recording (Pass code: dK3h#*u?) • Chat log • Q&A note + screen shots of poll results
	Tuesday, December 6, 12:00-1:30 PM	• Zoom recording (Pass code: 0y15?.YU) • Chat log • Q&A note + screen shots of poll results
Embarcadero	Tuesday, November 15, 6:00-7:30 PM	• Zoom recording (Pass code: fLB1^3@#) • Chat log • Q&A note + screen shots of poll results
	Thursday, December 8, 12:00-1:30 PM	• Zoom recording (Pass code: ZQ6yn\$EX) • Chat log • Q&A note + screen shots of poll results

Photo Folders to In-person Events

- Southern Waterfront Community Events
 - [Community Mixer](#)
 - [Open House](#)
- Islais Creek / Bayview Waterfront Walking Tours
 - [November 12](#)
 - [January 21](#)
- Mission Creek / Mission Bay Waterfront Walking Tours
 - [October 29](#)
 - [November 5](#)
- Embarcadero

- [November 19](#)
- [February 4](#)

Notice of Intent Scoping Period

TABLE 1—TAKE ANALYSIS—Continued

Species	Authorized take	Scaled take ¹	Abundance ²	Percent abundance
Pygmy killer whale	504	149	2,126	7.0
False killer whale	801	236	3,204	7.4
Killer whale	7	n/a	267	2.6
Short-finned pilot whale	619	183	1,981	9.2

¹ Scalar ratios were applied to “Authorized Take” values as described at 86 FR 5322, 5404 (January 19, 2021) to derive scaled take numbers shown here.

² Best abundance estimate. For most taxa, the best abundance estimate for purposes of comparison with take estimates is considered here to be the model-predicted abundance (Roberts *et al.*, 2016). For those taxa where a density surface model predicting abundance by month was produced, the maximum mean seasonal abundance was used. For those taxa where abundance is not predicted by month, only mean annual abundance is available. For Rice’s whale and killer whale, the larger estimated SAR abundance estimate is used.

³ Includes 31 takes by Level A harassment and 546 takes by Level B harassment. Scalar ratio is applied to takes by Level B harassment only; small numbers determination made on basis of scaled Level B harassment take plus authorized Level A harassment take.

Based on the analysis contained herein of Shell’s proposed survey activity described in its LOA application and the anticipated take of marine mammals, NMFS finds that small numbers of marine mammals will be taken relative to the affected species or stock sizes (*i.e.*, less than one-third of the best available abundance estimate) and therefore the taking is of no more than small numbers.

Authorization

NMFS has determined that the level of taking for this LOA request is consistent with the findings made for the total taking allowable under the incidental take regulations and that the amount of take authorized under the LOA is of no more than small numbers. Accordingly, we have issued an LOA to Shell authorizing the take of marine mammals incidental to its geophysical survey activity, as described above.

Dated: July 21, 2023.

Angela Somma,

Acting Director, Office of Protected Resources,
National Marine Fisheries Service.

[FR Doc. 2023–15860 Filed 7–26–23; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

Notice of Intent To Prepare an Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study, San Francisco County, California

AGENCY: U.S. Army Corps of Engineers, Department of the Army, DoD.

ACTION: Notice of Intent to prepare a Draft Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood

Study, San Francisco County, California.

SUMMARY: Pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, as implemented by the Council on Environmental Quality regulations, the U.S. Army Corps of Engineers (USACE), Tulsa District, announces its intent to prepare a Draft Integrated Feasibility Report and Environmental Impact Statement (IFR–EIS) for the San Francisco Waterfront Coastal Flood Study. The study will investigate the feasibility of managing tidal and fluvial flooding and sea level rise along 7.5 miles of the San Francisco Waterfront, from Aquatic Park to Herons Head Park, in the City of San Francisco, San Francisco County, California. This notice announces USACE’s intent to determine the scope of the issues to be addressed and identify the significant issues related to a proposed action.

DATES: Written comments should be submitted by August 28, 2023.

ADDRESSES: Written comments related to the development of the Draft IFR–EIS may be submitted by any of the following methods:

- Email: SFWFRS@usace.army.mil.
- Mail: U.S. Army Corps of Engineers, Tulsa District, ATTN: RPEC–SFWS, 2488 E 81st Street, Tulsa, OK 74137.
- For more information visit the project website at: <https://sfport.com/wrp/usace>.

FOR FURTHER INFORMATION CONTACT: Questions or comments regarding the proposed Draft IFR–EIS may be directed to Ms. Melinda Fisher at 918–669–7423 or by email at SFWFRS@usace.army.mil.

SUPPLEMENTARY INFORMATION:

1. *Authority.* The San Francisco Waterfront Coastal Flood Study (the Study) was originally authorized under section 110 of the Rivers and Harbors Act of 1950, Public Law (Pub. L.) 515, 64 stat. 163. The project was subsequently authorized under Section 142 of the Water Resources

Development Act (WRDA) of 1976, Pub. L. 94–587, 90 stat. 2917, 2930, as amended by Section 705 of WRDA of 1986, Pub. L. 99–662, 100 stat. 4082, 4158 and section 203 of WRDA 2020.

2. *Background.* The USACE and the Port of San Francisco (Port) have partnered to study flood risk along 7.5 miles of San Francisco’s bayside shoreline including areas between Aquatic Park and Heron’s Head Park. The Study is one of several coordinated waterfront resiliency efforts being undertaken by the Port in partnership with other federal, state, and local agencies to plan and reduce the risk of anticipated seismic activity, flooding, coastal storm damages, and sea level rise along the waterfront.

The Study began in 2018 under the USACE San Francisco District, South Pacific Division and was transferred to the Tulsa District out of the Southwestern Division in 2021. The Study follows the USACE Specific, Measurable, Attainable, Risk Informed, and Timely (SMART) planning process which targets a feasibility study to be completed within three years, but due to several complexities, including consideration of seismic conditions and the diversity of the geographic regions and stakeholders, the Study has been approved to complete the process in seven years.

3. *Purpose and Need.* The purpose of the Study is to investigate the feasibility of managing tidal and fluvial flooding and sea level rise along 7.5 miles of the San Francisco Bay shoreline. The project area is at risk of flooding from bay water during coastal storms, extreme tides, and future sea level rise. Flooding along the waterfront could cause extensive damage to public infrastructure and private property, loss of life and deterioration of public health and safety, degradation of the natural environment, and adverse changes to the social and economic character of the waterfront community. The risk is

expected to increase over time as sea levels rise in the bay.

4. *Proposed Action and Alternatives Being Considered.* Adapting the waterfront will require changes on a large scale that balance multiple factors and priorities. The Study Team has formulated an array of alternatives that would reduce the risk of flooding along the waterfront by considering the three USACE sea level rise curve scenarios (low, intermediate, and high), alignment of the line of defense relative to the existing shoreline, and adaptability of the design to address higher sea levels if certain thresholds are triggered after construction. A total of seven alternatives have been formulated for this study including:

- *Alternative A—No Action:* Takes no action to reduce flood risks through this project. This alternative serves as the baseline condition.

- *Alternative B—Nonstructural:* Proposes nonstructural measures such as relocation, raise in place, floodproofing, and zoning in areas identified with frequent flooding.

- *Alternative C—Defend Low Rate of Rise:* Uses a combination of structural (e.g., t-walls, sheet pile walls, berms, curb extensions), nonstructural (e.g., deployable flood barriers, floodproofing), and natural and nature-based features (NNBF) (e.g., ecological armoring) to address flooding in “low spots” along the shoreline. This alternative does not include any future year actions or adaptability once construction is complete.

- *Alternative D—Hybrid, Lower Rate of Rise:* Similar to Alternative C except measures are adaptable for future construction assuming the rate of rise accelerates to a higher rate of sea level change. Ecotone levees, ecological armoring, and wetland preservation and restoration are additional NNBF included in this design.

- *Alternative E—Defend, Higher Rate of Rise:* Uses a combination of structural (e.g., wharf raises and rehabilitation, seawalls, sheet pile walls, and berms), nonstructural (e.g., building and bridge raises, floodproofing) and NNBF (e.g., living seawalls/vertical shoreline, embankment shorelines, ecotone levees, and naturalized shorelines) to defend at the existing shoreline and prevent overtopping at the higher rate of sea level change with recommendations for adaptation in future years.

- *Alternative F—Working with Water, Higher Rate of Rise:* Similar to Alternative E, except there is managed retreat inland along the southern waterfront and tide gates at the mouths of Islais and Mission creeks. The NNBF include ecotone levees, ecological

armoring, naturalized shorelines, coarse beaches, and wetland preservation and restoration. Additional retreat and adaptations are proposed as the rate of sea level rise increases. This alternative proposes the most bayward alignment.

- *Alternative G—Living with Water, Higher Rate of Rise:* Similar to Alternative F, except this alternative concedes the largest area for managed retreat and incorporates more nonstructural measures (e.g., relocation and zoning) and significantly more areas of wetland restoration. It does not include water control structures (i.e., tide gates). This alternative proposes the most inland alignment and does not require bay fill.

5. *Brief Summary of Expected Impacts.* Expected impacts include short- and long-term impacts to existing aquatic habitats, fish and wildlife including federally protected species and their habitat, water quality, air quality, aesthetic quality, noise, transportation corridors, recreation features, historic resources, and socioeconomic resources. Impacts anticipated to require compensatory mitigation include aquatic habitats, water quality, and air quality, while many of the impacts to other resources will be minimized or avoided through project design. Long-term benefits are anticipated to each of the socioeconomic resources such as life safety, critical infrastructure, utilities, historic resources, historically disadvantaged communities, recreation, and the local economy through the management of coastal flooding and sea level rise. Long-term increases in aquatic habitats may also be realized with implementation of the NNBF.

The USACE San Francisco District and Port issued a Notice of Early Scoping in the **Federal Register** August 20, 2020. At that time, it was unclear if significant effects would be realized and the need for an EIS was not formally announced. Since then, it was determined that significant resource impacts are anticipated and an EIS is warranted. During early scoping, several significant environmental and social issues were raised including but not limited to minimizing bay fill; effects of high rates of sea level rise on any alternative considered; disruptions to businesses, transportation corridors and walk paths; environmental justice impacts on historically disadvantaged communities; impacts to water quality, contaminated sites, historic resources; and the potential cost and time to implement any of the strategies. In general, there was wide support for use of nature-based measures in lieu of gray infrastructure, preserving and increasing

public access to the waterfront, and incorporating adaptation components to address uncertainties in sea level rise.

6. *Anticipated Permits, Consultations, or Coordination.* The proposed action is being coordinated with federal, state, regional, and local agencies. In accordance with relevant environmental laws and regulations, the USACE will consult with the following agencies: US Fish and Wildlife Service and National Marine Fisheries Service under the Fish and Wildlife Coordination Act and Endangered Species Act; National Marine Fisheries Service under the Marine Mammal Protection Act and Magnuson-Stevens Fishery Conservation and Management Act; the San Francisco Bay Regional Water Quality Control Board under Section 401 of the Clean Water Act; the Bay Conservation and Development Commission under the Coastal Zone Management Act; the Bay Area Air Quality Management District under the Clean Air Act; the California State Historic Preservation Office and the Advisory Council on Historic Preservation under the National Historic and Preservation Act; and tribes under tribal coordination policies and executive orders. Other Federal and state agencies have been invited to participate throughout the study process as Coordinating or Participating Agencies.

For compliance with the National Environmental Policy Act (NEPA), the USACE will serve as the lead Federal agency in the preparation of the Draft IFR-EIS. For the California Environmental Quality Act (CEQA), the City of San Francisco Planning Department (Planning Department) is the lead agency for the Study. The Planning Department is conducting CEQA review under a separate process and will not be integrated with this NEPA effort.

7. *Public Participation.* USACE invites all affected federal, state, and local agencies, affected Native American Tribes, other interested parties, and the public to participate in the NEPA process during development of the Draft IFR-EIS.

Early scoping began in 2020, however due to the scale of anticipated effects, the USACE is inviting additional comments on the potential alternatives, issues of concern and any analyses relevant to the proposed action with this notice and formally announces the intent to prepare an EIS. For more information visit the project website at <https://sfport.com/wrp/usace>.

The scoping comment period begins with publication of this notice and ends on August 28, 2023. All comments

received during early scoping and the scoping period are being used to identify significant resources and effects that should be considered in the preparation of the Draft IFR–EIS.

Comments received after the comment period closes will be considered prior to the Draft IFR–EIS public review period, to the extent possible. For those that cannot be addressed prior to the public review period, the comments will be included within the public review period and addressed at that time.

While no public scoping meetings are scheduled during this scoping period, virtual public scoping meetings were held on September 16 and 17, 2020 coinciding with the Notice of Early Scoping issued in the **Federal Register** August 2020. The Port has also held numerous public engagement sessions including a robust outreach effort in the Fall of 2022 with a total of sixteen virtual and in-person public engagement events to further describe the purpose of the Study and strategies being considered, as well as to seek feedback on areas of concern and the plan formulation process.

8. *Availability of Draft IFR–EIS.* The USACE currently estimates that the Draft IFR–EIS will be available for public review and comment in the Fall of 2023. At that time, the USACE will provide a 60-day public review period for individuals and agencies to review and comment. The USACE will notify all interested agencies, organizations, and individuals of the availability of the draft document at that time. All interested parties are encouraged to respond to this notice and provide a current address if they wish to be notified of the Draft EIS circulation.

Wesley E. Coleman, Jr.

Programs Director, Southwestern Division.

[FR Doc. 2023–15898 Filed 7–26–23; 8:45 am]

BILLING CODE 3720–58–P

DEPARTMENT OF EDUCATION

[Docket No.: ED–2023–SCC–0142]

Agency Information Collection Activities; Comment Request; Ronald E. McNair Postbaccalaureate Achievement Program Annual Performance Report

AGENCY: Office of Postsecondary Education (OPE), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act (PRA) of 1995, the Department is proposing a

revision of a currently approved information collection request (ICR).

DATES: Interested persons are invited to submit comments on or before September 25, 2023.

ADDRESSES: To access and review all the documents related to the information collection listed in this notice, please use <https://www.regulations.gov> by searching the Docket ID number ED–2023–SCC–0142. Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at <https://www.regulations.gov> by selecting the Docket ID number or via postal mail, commercial delivery, or hand delivery. If the [regulations.gov](https://www.regulations.gov) site is not available to the public for any reason, the Department will temporarily accept comments at ICDocketMgr@ed.gov. Please include the docket ID number and the title of the information collection request when requesting documents or submitting comments. Please note that comments submitted after the comment period will not be accepted. Written requests for information or comments submitted by postal mail or delivery should be addressed to the Manager of the Strategic Collections and Clearance Governance and Strategy Division, U.S. Department of Education, 400 Maryland Ave. SW, LBJ, Room 6W203, Washington, DC 20202–8240.

FOR FURTHER INFORMATION CONTACT: For specific questions related to collection activities, please contact Julie Laurel, 202–453–6733.

SUPPLEMENTARY INFORMATION: The Department, in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. The Department is soliciting comments on the proposed information collection request (ICR) that is described below. The Department is especially interested in public comment addressing the following issues: (1) is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how

might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: Ronald E. McNair Postbaccalaureate Achievement Program Annual Performance Report.

OMB Control Number: 1840–0640.

Type of Review: A revision of a currently approved ICR.

Respondents/Affected Public: Private Sector; State, Local, and Tribal Governments.

Total Estimated Number of Annual Responses: 206.

Total Estimated Number of Annual Burden Hours: 2,297.

Abstract: Ronald E. McNair Postbaccalaureate Achievement (McNair) Program grantees must submit the Annual Performance Report each year. The reports are used to evaluate grantees' performance for substantial progress, respond to the Government Performance and Results Act (GPRA), and award prior experience points at the end of each project (budget) period. The Department also aggregates the data to provide descriptive information on the projects and to analyze the impact of the McNair Program on the academic progress of participating students.

In this revision, the Department added two fields, at the project level, requesting information on the implementation of the Competitive Preference Priorities (CPPs) used in the most recent grant competition. The addition of the CPP questions coupled with an increase in the number of respondents resulted in a slight increase in total annual burden hours.

Dated: July 24, 2023.

Kun Mullan,

PRA Coordinator, Strategic Collections and Clearance, Governance and Strategy Division, Office of Chief Data Officer, Office of Planning, Evaluation and Policy Development.

[FR Doc. 2023–15963 Filed 7–26–23; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

[Docket ID ED–2023–FSA–0109]

Privacy Act of 1974; System of Records

AGENCY: Federal Student Aid, U.S. Department of Education.

ACTION: Notice of a Modified System of Records.

SUMMARY: In accordance with the Privacy Act of 1974, as amended

From: [REDACTED]
To: [SF Waterfront](#)
Subject: [URL Verdict: Neutral][Non-DoD Source] Fw: U.S. Army Corps of Engineers San Francisco Waterfront Coastal Flood Study Notice of Intent
Date: Wednesday, August 2, 2023 1:43:49 PM

Hi there,
Thank you for inviting public comment regarding the SF Waterfront Coastal Flood Study.

My family and I care very much about the environment, which includes biodiversity, which is in crisis. Therefore, we urge you to take actions that favor the natural world, native plants and animals and to avoid actions that harm the same. Because we have met the enemy of biodiversity, and it is us humans.

Sincerely,

[REDACTED]

San Francisco native and life-long resident

----- Forwarded Message -----

From: Port of San Francisco <communications@sfport.com>

To: [REDACTED]

Sent: Tuesday, August 1, 2023 at 03:56:16 PM PDT

Subject: U.S. Army Corps of Engineers San Francisco Waterfront Coastal Flood Study Notice of Intent

Notice of Intent to Prepare a Draft Integrated Feasibility Report and Environmental Impact Statement

The U.S. Army Corps of Engineers (USACE) and Port of San Francisco have partnered to study flood risk along San Francisco's bayside shoreline.

The San Francisco Waterfront Coastal Flood Study is one of the several coordinated waterfront resilience activities being undertaken in partnership with federal, state, and local agencies to plan for anticipated seismic activity, flooding, and sea level rise. The study will identify vulnerabilities and recommend strategies to reduce current and future flood risks for consideration for federal investment and implementation along the Port's entire 7.5 mile jurisdiction.

The USACE **San Francisco Waterfront Coastal Flood Study** is receiving written comments

from any member of the public through August 28, 2023, as part of a Notice of Intent to prepare a **Draft Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) for the Flood Study**.

Written comments related to the development of the Draft IFR-EIS may be submitted by any of the following methods:

Email: **SFWFRS@usace.army.mil**

Mail: U.S. Army Corps of Engineers, Tulsa District, ATTN: RPEC-SFWS, 2488 E 81st Street, Tulsa, OK 74137

Questions or comments regarding the proposed Draft IFR-EIS may be directed to Ms. Melinda Fisher at 918-669-7423 or by email at **SFWFRS@usace.army.mil**.

The USACE is soliciting public participation and input on scoping for the National Environmental Policy Act (NEPA) EIS that will assist with determining the appropriate level of NEPA documentation and analysis for the study.

The USACE currently estimates that the Draft IFR-EIS will be available for public review and comment in fall 2023. At that time, the USACE will provide a 60-day public review for individuals and agencies to review and comment.

For more about the Flood Study, visit the public website at **sfport.com/wrp/usace**.

sfport.com/wrp



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This email was sent to denise_louie_sf@yahoo.com.
To continue receiving our emails, add us to your address book.

From: [REDACTED]
Subject: [URL Verdict: Neutral][Non-DoD Source] Thames River Barrier
Date: Wednesday, August 2, 2023 1:42:55 PM

Thames Barrier



Thames Barrier protect London.

London, England has been around a lot longer than San Francisco and was long ago forced to control their water flow issues to improve drainage, sewer functioning and flooding of low-lying areas. They created a mechanical barrier that stops high tide from intruding into their city.

The Thames Barrier was built in 1982. This barrier is closed during high tides and during storm surges. During low tide, the barrier is opened to allow water to leave.

A similar flood control system may be appropriate for the SF Bay area. Since the solution to Climate Change is not completely our responsibility or even something we can correct alone, it seems likely that a local flood control barrier may be the best local solution to the problem of future flooding in San Francisco.

[REDACTED]



From: [REDACTED]
To: [SF Waterfront](#)
Subject: [URL Verdict: Neutral][Non-DoD Source] Port study
Date: Sunday, August 6, 2023 10:47:30 AM

Please harmonize, and simplify. It seems that you plan for a 3' sea level rise by 2050--much more than other SF documents plan for (1/2" per year). Hard to believe 3'. It seems that you plan for a quake of 6.7 or more (more than 2/3 chance in twenty years). And yet you say that about \$5 billion is expected to be spent shoring up or replacing the seawall in 30 years, so say about \$3.5 billion by 2050.

It is hard to accept all three above at once. \$3.5 billion will not be adequate address 3' rise or a 6.7 quake, either one, much less both. Perhaps if one can't accept three inconsistencies one is not a fit San Francisco bureaucrat. But this reader cries: discordant, harmonize.

[REDACTED], resident, Forest Hill

<https://sfport.com/files/2021-12/SFWaterfrontCoastalFloodStudyWebinarDeck.pdf> ☐

From: [REDACTED]
To: [SF Waterfront](#)
Subject: [URL Verdict: Neutral][Non-DoD Source] U.S. Army Corps of Engineers San Francisco Waterfront Coastal Flood Study Comment
Date: Wednesday, August 9, 2023 11:51:09 PM
Attachments: [SF Waterfront Coastal Flood Study Comment 081023.pdf](#)



August 9, 2023

U.S. Army Corps of Engineers
Tulsa District
ATTN: RPEC-SFWS
2488 E 81st Street
Tulsa, OK 74137

Email: SFWFRS@usace.army.mil

Re: Document #2023-15898

Draft Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study, San Francisco County, California.

Dear Ms. Melinda Fisher and Others to Whom It May Concern;

Thank you for this opportunity to comment on the upcoming Draft IFR and EIS for the San Francisco Waterfront Coastal Flood Study.

The California Native Plant Society's mission is to conserve California native plants and their natural habitats, and increase understanding, appreciation, and horticultural use of native plants. Our vision includes a future where Californians can experience thriving biological diversity, even in human-altered landscapes. The Yerba Buena chapter of CNPS covers San Francisco County and we respectfully submit the following questions:

1. How does the proposed flood protection plan account for potential sea level rise scenarios over the next few decades, and what adaptation measures are included to address changing sea levels?
2. Could you provide more details about the engineering techniques and infrastructure proposed in the plan to mitigate coastal flooding? How will these measures interact with the existing environment and communities?
3. What assessments have been conducted to evaluate the potential impacts of the flood protection infrastructure on local ecosystems, including wetlands, aquatic habitats, shoreline and upland areas and wildlife? How will these impacts be mitigated or minimized?

4. How will the proposed flood protection plan impact public access to and use of the waterfront areas? Are there provisions to ensure continued recreational and economic activities in these areas?
5. Can you elaborate on the cost-benefit analysis conducted for the proposed flood protection measures? What economic benefits are expected to result from the implementation of the plan, and how will these benefits be distributed among different stakeholders?
6. Are there plans to integrate green infrastructure or nature-based solutions into the flood protection measures? How might these approaches enhance both flood resilience and environmental sustainability or better yet, enhancement?
7. Given the potential for climate change-related uncertainties, what flexibility and adaptability have been built into the proposed plan to adjust to evolving conditions and ensure its long-term effectiveness?
8. How does the proposed flood protection plan align with broader regional or statewide coastal management strategies and initiatives, particularly those related to climate resilience and hazard mitigation?
9. What contingency plans are in place if any unforeseen challenges or impacts arise during the implementation of the flood protection measures? How will these challenges be addressed in real-time?
10. Could you explain the potential effects of the flood protection infrastructure on adjacent infrastructure, utilities, and transportation systems? How will these potential impacts be managed?
11. What provisions are in place to ensure that disadvantaged or vulnerable communities are not disproportionately affected by the flood protection measures? How will social equity considerations be integrated into the plan?
12. Can you provide information on the timeline for implementation of the proposed flood protection plan, including key milestones and anticipated completion dates for different phases?
13. How will the proposed flood protection plan be funded, and what mechanisms are in place to secure the necessary financial resources for its successful implementation and maintenance?
14. How does the flood protection plan address potential conflicts or coordination challenges with other ongoing or planned waterfront enhancements (ex: Measure AA) or development projects in the region?
15. Will the project enhance important tidal marsh ecosystem plants such as *Suaeda californica* (California sea-blite) and *Zostera marina* (eelgrass)?

Thank you again for this opportunity to submit questions. We look forward to the release of the Draft Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study

Respectfully,



California Native Plant Society, Yerba Buena chapter
Conservation Chair

<http://cnps-yerbabuena.org>



CALIFORNIA
NATIVE PLANT SOCIETY

Yerba Buena
Chapter

August 9, 2023

U.S. Army Corps of Engineers
Tulsa District
ATTN: RPEC-SFWS
2488 E 81st Street
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Thank you again for this opportunity to submit questions. We look forward to the release of the Draft Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study

Respectfully,



California Native Plant Society, Yerba Buena chapter
Conservation Chair

<http://cnps-yerbabuena.org>

From: [REDACTED]
To: [SF Waterfront](#)
Subject: [URL Verdict: Neutral][Non-DoD Source] U.S. Army Corps of Engineers San Francisco Waterfront Coastal Flood Study Comment
Date: Wednesday, August 9, 2023 11:51:09 PM
Attachments: [SF Waterfront Coastal Flood Study Comment 081023.pdf](#)



August 9, 2023

U.S. Army Corps of Engineers
Tulsa District
ATTN: RPEC-SFWS
2488 E 81st Street
Tulsa, OK 74137

Email: SFWFRS@usace.army.mil

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Thank you again for this opportunity to submit questions. We look forward to the release of the Draft Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study

Respectfully,



California Native Plant Society, Yerba Buena chapter
Conservation Chair

<http://cnps-yerbabuena.org>

From: [REDACTED]
To: [SF Waterfront](#)
Subject: [Non-DoD Source] Comments on NOI to Prepare Draft Integrated Feasibility Report and EIS
Date: Wednesday, August 9, 2023 12:50:35 PM

Ms. Fisher,

On behalf of the South End Rowing Club, 500 Jefferson Street, San Francisco, CA ("SERC"), we request inclusion on your list of those receiving notice of all public input stages of the process of preparing the Draft Integrated Feasibility Report and Environmental Impact Statement for the Waterfront Coastal Flood Study.

SERC is a non-profit recreational club that admits all interested persons as members, and is located at San Francisco Aquatic Park. SERC members engage in and promote several recreational activities, including open water swimming along the San Francisco shoreline, and human-powered rowboating, kayaking, and sculling.

SERC wishes to have an opportunity to provide input into every relevant step of the planning process in order to contribute as responsible citizens to a successful outcome, and to ensure appropriate consideration and mitigation of impacts that any proposed project may have on the continued use of the Bay for swimming and boating recreational pursuits, and other human-powered water contact activities. Concerns include points of access and egress, water quality, and hydrology, all of which relate to human safety and health.

Please add SERC to your list of persons receiving notice of all meetings and proposed actions. Thank you.

[REDACTED]

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[REDACTED]

From: [REDACTED]
To: [SF Waterfront](#)
Subject: [Non-DoD Source] DRAFT IFR-EIS
Date: Tuesday, August 15, 2023 11:35:52 AM

I'm a Professional Civil Engineer in San Bruno and have attended several presentations on the Peninsula about how each local government was going to handle sea level rise.

It occurred to me that, instead of each community building dikes and stormwater management systems, this may be better handled by diking off the South Bay and managing the estuary like it is done in Holland.

The obvious location of a dike would be from just North of SFO to the Oakland Airport. As an added benefit, Interstate 380 could continue across the Bay on top of the dike along with a second BART transbay crossing.

Not sure if SFO flight clearance requirements would conflict with a bridge to allow for shipping, but a swinging bridge over the locks might be considered.

[REDACTED], Commander CEC, US Navy Retired





United States Department of the Interior



NATIONAL PARK SERVICE
Interior Regions 8, 9, 10, and 12
555 Battery Street, Suite 122
San Francisco, CA 94111

IN REPLY REFER TO:
PW-P (I.D, L7619)

U.S. Army Corps of Engineers, Tulsa District
ATTN: RPEC—SFWS
2488 E 81st Street, Tulsa, OK 74137
(email: SFWFRS@usace.army.mil)

To Whom It May Concern:

Thank you for the opportunity to comment on the San Francisco Waterfront Coastal Flood Study. The National Park Service (NPS), National Trails Office administers the Pony Express National Historic Trail (NHT) and the Butterfield Overland NHT, both of which intersect the planning area for this EIS. We look forward to participating in the EIS process and providing expertise on trails resources and potential impacts resulting from rising sea level. Geospatial data for the congressional alignments of the two trails can be found at [Butterfield Overland NHT special resource study](#), and [Pony Express NHT \(arctis.com\)](#).

San Francisco Maritime National Historical Park manages a fleet of historic ships, Visitor Center, Maritime Museum, Maritime Research Center, and the Aquatic Park Historic District, all within the park boundary adjacent to the planning area (Fisherman's Wharf/Embarcadero) for this EIS.

The NPS looks forward to participating in the EIS process and providing any additional input and expertise on cultural and historic resources and potential indirect impacts from flooding and other environmental risks.

For questions or additional information about San Francisco Maritime National Historical Park, please contact Dale Dualan (dale_dualan@nps.gov), Management Analyst and Public Information Officer. Regarding the Pony Express NHT and Butterfield Overland NHT, contact Jordan Jarrett (jordan_jarrett@nps.gov) at the NPS National Trails Office.

Sincerely,

DANETTE NOLAN Digitally signed by DANETTE
NOLAN
Date: 2023.08.22 08:04:01 -07'00'

Danette Woo Nolan
Regional Environmental Coordinator
National Park Service, Interior Regions 8, 9, 10 & 12

INTERIOR REGION 8 • LOWER COLORADO BASIN*
INTERIOR REGION 9 • COLUMBIA—PACIFIC NORTHWEST*
INTERIOR REGION 10 • CALIFORNIA—GREAT BASIN
INTERIOR REGION 12 • PACIFIC ISLANDS

AMERICAN SAMOA, ARIZONA*, CALIFORNIA, GUAM, HAWAII, IDAHO, MONTANA*,
NEVADA, NORTHERN MARIANA ISLANDS, OREGON, WASHINGTON
*PARTIAL

From: Fain, Jessica@BCDC
To: [SF Waterfront](#)
Cc: [Brad Benson](#); [Capone, Kelley \(PRT\)](#); Goldbeck, Steve@BCDC; Buehmann, Erik@BCDC
Subject: [Non-DoD Source] San Francisco Waterfront Coastal Flood Study Scoping Comment Letter
Date: Monday, August 28, 2023 7:50:06 PM
Attachments: [image001.png](#)
[20230828_USACE_SF Flood Study IFS EIS BCDC Scoping Comments.docx.pdf](#)

Ms. Fisher,

Please find the attached comment letter from the San Francisco Bay Conservation and Development Commission on the USACE's Notice of Intent to Prepare an Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study. Don't hesitate to reach out with any questions.

Sincerely,

JESSICA FAIN, AICP
Director of Planning
San Francisco Bay Conservation and Development Commission
Bay Area Metro Center
375 Beale Street, San Francisco, CA 94105
415-352-3642
Jessica.Fain@bcdc.ca.gov
<http://www.bcdc.ca.gov/>



"Celebrate Pride With Us"

San Francisco Bay Conservation and Development Commission

375 Beale Street, Suite 510, San Francisco, California 94105 tel 415 352 3600 fax 888 348 5190

State of California | Gavin Newsom – Governor | info@bcdc.ca.gov | www.bcdc.ca.gov

August 28, 2023

Melinda Fisher
U.S. Army Corps of Engineers
Tulsa District, ATTN: RPEC—SFWS,
2488 E 81st Street, Tulsa, OK 74137
Sent via email: SFWFRS@usace.army.mil

SUBJECT: Comments on Notice of Intent to Prepare an Integrated Feasibility Report and
Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study

Dear Melinda Fisher:

Thank you for the opportunity to comment on the notice of intent to prepare an integrated feasibility report and Environmental Impact Statement (EIS) for the San Francisco Waterfront Coastal Flood Study by the San Francisco District of the U.S. Army Corps of Engineers (USACE), which will evaluate coastal storm and flood risk management alternatives along 7.5 miles of the San Francisco Waterfront, from Aquatic Park to Herons Head Park, in the City of San Francisco, San Francisco County, California. The following comments provided by BCD C staff are based on the McAteer-Petris Act and the *San Francisco Bay Plan* (Bay Plan).

The USACE and Port Study Team has formulated an array of seven waterfront adaptation strategy alternatives that would reduce the risk of flooding along the waterfront by considering the three USACE sea level rise curve scenarios (low, intermediate, and high), alignment of the line of defense relative to the existing shoreline, and adaptability of the design to address higher sea levels if certain thresholds are triggered after construction. BCD C staff supports the efforts to address rising sea level along the study area and appreciate the opportunity to contribute to the formulation of these alternatives and the environmental impacts and benefits that will be analyzed in the Integrated Flood Study and EIS. We believe that an EIS is appropriate for a project of this magnitude, and request that a joint federal EIS and state Environmental Impact Report be prepared and circulated for the project. As provided below, these alternatives raise issues under the McAteer-Petris Act and the *San Francisco Bay Plan*.

Commission Jurisdiction and Authority. BCD C is responsible for granting or denying permits for any proposed fill (e.g., earth or any other substance or material, including pilings or structures placed on pilings, and floating structures moored for extended periods of time); extraction of materials; or change in use of any water, land, or structure within the Commission's jurisdiction. The Commission has jurisdiction over the Bay waters and the shoreline areas bayward of the Embarcadero that would be evaluated in the Feasibility Study, and a shoreline band consisting of all territory located between the shoreline of the Bay and 100 feet landward of and parallel with the

BCDC Comments on Notice of Intent To Prepare an Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study

shoreline. For projects that are within the Commission's jurisdiction, permits from BCDC may be required, depending on the nature of the activity.

In addition to carrying out its regulatory authority under state law, the federal Coastal Zone Management Act allows the Commission to review federal projects and projects that require federal approval or are supported with federal funds. The Commission reviews federal projects for consistency with its federally-approved Coastal Management Program for the San Francisco Bay segment of the California Coastal Zone in a similar process that it uses in reviewing permit applications under state law. As provided in the Coastal Zone Management Act, when submitting a statement of consistency, federal agencies and applicants for federal approvals must provide a detailed description of the activity, its associated facilities, and their coastal effects, and comprehensive data and information sufficient to support the Federal agency's consistency statement. BCDC staff believes that if the flood study results in a federal project with the Port of San Francisco as a local sponsor, then both federal consistency review under the CZMA and permitting pursuant to the McAtteer-Petris Act will be required and encourages the Army Corps and the Port of San Francisco to coordinate the state permitting and federal consistency determination processes. In addition, prior to submitting any permit application or consistency determination to BCDC, BCDC staff strongly encourages the Port of San Francisco staff and Army Corps of Engineers staff to meet with BCDC staff to review any project proposals, coordinate approvals, and review any issues raised by BCDC's laws and policies. While BCDC staff have participated in a number of meetings and processes related to this study, including participation in the Resource Agency Working Group, individual preapplication consultation with BCDC staff is critical to the efficient review of major projects. A similar permitting approach occurred during many Bay projects, including the Port of Oakland 50-foot deepening project, and the South Bay Shoreline Project.

Existing Permits. There are a large number of existing BCDC permits within the Feasibility Study area. These existing BCDC permits, in addition to often authorizing ongoing work or projects in construction, may include special conditions that include requirements, including but not limited to, providing and maintaining public access, monitoring the impact of projects on the Bay, etc. The Projects identified by the study may require, in addition to required state permits and federal consistency review, additional amendments to existing BCDC permits and may impact existing requirements. In particular, the EIS should discuss the effects, if any, that the potential coastal storm and flood risk management alternatives would have on existing public access or other conditions required in these permits.

Priority Use Areas and BCDC's Seaport Plan. Section 66602 of the McAtteer-Petris Act states, in part, that certain water-oriented land uses along the bay shoreline are essential to the public welfare of the Bay Area, including ports and waterfront parks and beaches, and, as such, the San Francisco Bay Plan should make provision for adequate and suitable locations for all these uses. In Section 66611, the Legislature declares "that the Commission shall adopt and file with the Governor and the Legislature a resolution fixing and establishing within the shoreline band the boundaries of the water-oriented priority land uses, as referred to in Section 66602," and that "the

BCDC Comments on Notice of Intent To Prepare an Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study

Commission may change such boundaries in the manner provided by Section 66652 for San Francisco Bay Plan maps.” The Feasibility Study area from Aquatic Park to Herons Head in San Francisco is included on Bay Plan Maps 4 and 5 and it includes several Port Priority Use Areas at China Basin (Piers 48 and 50), Central Basin (Pier 68), and surrounding the Islais Creek Channel (Piers 80, 90, 92, 94, and 96). Any proposals for placing fill, extracting materials, or changing the use of any land, water, or structure within those areas that are designated for Port Priority Use in the Bay Plan must be developed and managed in a manner consistent with applicable policies of the McAteer-Petris Act and the Bay Plan as well as BCDC’s Seaport Plan, which is in the process of being updated. The EIS should describe the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Priority Use Areas and the Seaport Plan.

In addition, we request that the environmental documentation evaluate consistency with the Waterfront Beach Priority Use Areas as that Priority Use applies to areas along the San Francisco Waterfront. The Bay Plan Maps also include Plan Map Policies that are enforceable and have the same authority as the policies in the text of the Bay Plan. Plan Map 4 includes Policy 27, which states at Fisherman’s Wharf, “improve and expand commercial fishing support facilities. Enhance public access to and economic value of Fisherman’s Wharf area by encouraging development of a public fish market,” which is repeated in Plan Map 5 Policy 29. Plan Map 4 also includes Policy 26, regarding the San Francisco Waterfront Special Area Plan, which states “see special area plan for detailed planning guidelines for the shoreline between the east side of Hyde Street Pier and the south side of India Basin,” which is repeated in Plan Map 5 Policy 24. Finally, Plan Map 5 Policy 23 states for the Port of San Francisco, “See the Seaport Plan. Some fill may be needed.” Finally, Bay Plan Map 4 includes “Commission Suggestion A” for a “possible scenic transit system from Ocean Beach to China Basin.” Note that Commission suggestions are not enforceable policies. The EIS should describe the consistency of the potential coastal storm and flood risk management alternatives with the Plan Map policies and suggestions.

BCDC’s San Francisco Waterfront Special Area Plan. The McAteer-Petris Act of 1965 provides for the Bay Plan to contain or incorporate by reference “special area plans” (SAP) with more specific findings and policies for portions of the Bay and its shoreline. BCDC developed the San Francisco Waterfront SAP in partnership with the Port and it applies the requirements of the McAteer-Petris Act and the provisions of the Bay Plan to the San Francisco waterfront in greater detail and should be read in conjunction with both the McAteer-Petris Act and the Bay Plan. BCDC first adopted the SAP in 1975. The last comprehensive amendment to the SAP (Bay Plan Amendment 7-99) was adopted in 2000 and it currently contains General Policies pertaining to the area covered by the Special Area Plan and Geographic-Specific Policies for three geographic vicinities, Fisherman’s Wharf, the Northeastern Waterfront, and the Southern Waterfront, as well as Plan Maps that delineate priority use areas. Although the San Francisco Waterfront SAP is in the process of being amended, the EIS should describe the consistency of the potential coastal storm and flood risk management alternatives with the existing San Francisco Waterfront SAP.

Commission Law and Bay Plan Policies Relevant to the Project

BCDC Comments on Notice of Intent To Prepare an Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study

Bay Fill. Section 66605 of the McAteer-Petris Act sets forth the criteria necessary to authorize placing fill in the Bay and certain waterways. It states, among other things, that further filling of the Bay should only be authorized if it is the minimum necessary to achieve the purpose of the fill and if harmful effects associated with its placement are minimized. According to the Act, fill is limited to water-oriented or minor fill for improving shoreline appearance or public access and should be authorized only when no alternative upland location is available for such purpose. The San Francisco Waterfront Special Area Plan provides for some exceptions to the fill requirements of the Act within certain areas of the San Francisco Waterfront. If any fill is proposed as part of any project identified by the study, the environmental documentation should also indicate the location of such fill (including fill in tidal marsh), the proposed method of fill (e.g., solid earth, pile-supported structure, cantilevered structure), the approximate volume and surface area of the Bay to be filled, and the proposed development, activity, and uses of the filled area. Alternatives should be included that minimize fill and are consistent with the other applicable requirements of the Section 66605 of the McAteer-Petris Act.

The *San Francisco Bay Plan*. The Bay Plan establishes policies for development and resource conservation within BCDC's jurisdiction. Policies cover the protection of Bay resources, including fish, other aquatic organisms, and wildlife; water quality; and others, as well as issues related to development, such as climate change; fills; shoreline protection; water-related uses; appearance, design, and scenic views; public access; and mitigation. The EIS should analyze impacts and issues raised by all relevant Bay Plan Policies.

Biological Resources. Protection of biological resources, including wildlife and habitat, is addressed through several sections of the Bay Plan. Fish, Other Aquatic Organisms, and Wildlife Policy No. 1 states "To assure the benefits of fish, other aquatic organisms and wildlife for future generations, to the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased." Additional policies in these Bay Plan sections, and policies in the Subtidal Areas section, provide further requirements on protection of the Bay's natural resources. The EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Policies pertaining to Fish, Other Aquatic Organisms, and Wildlife; Tidal Marshes and Tidal Flats; and Subtidal Areas. For example, Fish, Other Aquatic Organisms, and Wildlife Policy No. 3 states "In reviewing or approving habitat restoration projects or programs the Commission should be guided by the best available science, including regional goals, and should, where appropriate, provide for a diversity of habitats for associated native aquatic and terrestrial plant and animal species." Additionally, Fish, Other Aquatic Organisms, and Wildlife Policy No. 6 states, in part, that "Allowable fill for habitat projects in the Bay should (a) minimize near term adverse impacts to and loss of existing Bay habitat and native species; (b) provide substantial net benefits for Bay habitats and native species; and (c) be scaled appropriately for the project and necessary sea level rise adaptation measures in accordance with the best available science..." The EIS should address if and how any fill proposed for the potential coastal storm and flood risk management alternatives meets these criteria.

Water Quality. The policies in the Water Quality section of the Bay Plan require Bay water pollution to be prevented to the greatest extent feasible. New projects are required to be sited, designed,

BCDC Comments on Notice of Intent To Prepare an Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study

constructed and maintained to prevent or minimize the discharge of pollutants in the Bay by controlling pollutant sources at the project site, using appropriate construction materials, and applying best management practices. More specifically, Bay Plan policies on water quality state, in part, that “water quality in all parts of the Bay should be maintained at a level that will support and promote the beneficial uses of the Bay as identified in the San Francisco Bay Regional Water Quality Control Board’s *Water Quality Control Plan, San Francisco Basin* and should be protected from all harmful or potentially harmful pollutants.” The EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Policies pertaining to Water Quality.

Water Surface Area and Volume. Alternatives that incorporate tidal barriers may raise significant issues under Bay Plan Water Surface Area and Volume findings and policies related to tidal barriers. The Bay Plan states, “Water circulation might be greatly improved by some of the major barrier proposals that have been made for the Bay. But barriers affect for better or for worse-the appearance and ecology of the Bay, sedimentation, flood control, and existing and proposed uses of the shores of the Bay. They are also very costly. For all barrier proposals fully evaluated thus far, disadvantages outweigh advantages.” As a result, Water Surface Area and Volume Policy 3 states, “Because further study is needed before any barrier proposal to improve water circulation can be considered acceptable, the Bay Plan does not include any barriers. Before any proposal for a barrier is adopted in the future, the Commission will be required to replan all of the affected shoreline and water area.” As a result, any alternative that incorporate tidal barriers will require the Port of San Francisco and/or USACE to apply for and fund a substantial study and Bay Plan Amendment, as provided in the Commission regulations, evaluating the impact to the Bay from such a measure and a significant and costly planning project to evaluate and potentially amend the San Francisco Bay Plan.

Environmental Justice and Social Equity. Policy No. 3 of the Bay Plan Environmental Justice and Social Equity chapter says “[e]quitable, culturally-relevant community outreach and engagement should be conducted by local governments and project applicants to meaningfully involve potentially impacted communities for major projects and appropriate minor projects in underrepresented and/or identified vulnerable and/or disadvantaged communities... Evidence of how community concerns were addressed should be provided.” Policy No. 4 states “[i]f a project is proposed within an underrepresented and/or identified vulnerable and/or disadvantaged community, potential disproportionate impacts should be identified in collaboration with the potentially impacted communities.”

The EIS should specify the culturally-relevant community outreach and engagement efforts that will be conducted for the Feasibility Study, identify whether the Feasibility Study area includes vulnerable communities, and if so, identify any potential disproportionate impacts that could result from the potential coastal storm and flood risk management alternatives. Additionally, as the Feasibility Study area includes areas designated for industrial uses and other uses that could affect surrounding neighborhoods, the EIS should examine, in each relevant section, the potential for each coastal storm and flood risk management alternative to negatively affect community health and quality of life, including any contributions to cumulative effects. Any impacts identified should

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be accompanied by mitigation measures to avoid or minimize adverse effects on community health or quality of life, and would ideally be informed by community outreach and engagement.

Climate Change and Safety of Fills. Climate Change Policy No. 2 states that, “When planning shoreline areas or designing larger shoreline projects, a risk assessment should be prepared... based on the estimated 100-year flood elevation that takes into account the best estimates of future sea level rise and current flood protection and planned flood protection... for the proposed project or shoreline area. A range of sea level rise projections for mid-century and end of century based on the best scientific data available should be used in the risk assessment.” Policy No. 3 states that where such assessments show vulnerability to public safety, projects “should be designed to be resilient to a mid-century sea level rise projection” and an “adaptive management plan” should be prepared if it is likely the project will remain in place longer than mid-century.

In addition, Policy No. 4 in the Bay Plan Safety of Fills section states that structures on fill or near the shoreline should have adequate flood protection including consideration of future relative sea level rise as determined by qualified engineers. The policy states that, “[a]dequate measure should be provided to prevent damage from sea level rise and storm activity that may occur on fill or near the shoreline over the expected life of a project.... New projects on fill or near the shoreline should either be set back from the edge of the shore so that the project will not be subject to dynamic wave energy, be built so the bottom floor level of structures will be above a 100-year flood elevation that takes future sea level rise into account for the expected life of the project, be specifically designed to tolerate periodic flooding, or employ other effective means of addressing the impacts of future sea level rise and storm activity.” These policies should be read in combination with Public Access Policy No. 6, which states in part that public access areas “should be sited, designed, managed and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding” and with policies on biological resource protection described above.

The EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Climate Change and Safety of Fills policies and include a discussion of how the alternatives will encourage development on the waterfront that is designed to adapt to, tolerate, and/or manage sea level rise and shoreline flooding and to ensure resilience to mid-century sea level rise projections, and adaptation to end of the century projections, if it is likely the development will remain in place longer than mid-century. This analysis should include the mean higher high water level, the 100-year flood elevation, the mid- and end-of-century sea level projections, preferably using projections based on the best-available science found in the State of California’s Sea Level Rise Guidance (which is expected to be updated in 2023), anticipated site-specific storm surge effects, and a preliminary assessment of the project’s vulnerability to future flooding, groundwater emergence and sea level rise. Additional relevant resources include BCDC’s Climate Change Policy Guidance, the [BCDC’s Bay Shoreline Flood Explorer](#) and [BCDC’s 2020 ART Bay Area report](#), particularly the [Mission Islais Local Assessment](#).

In addition, one of the alternatives described in the study will require a significant reliance on new pumping systems. Staff encourage the assessment of the impacts of the new energy demands for pumping in the comparison of the alternatives and include a discussion of the reliability of pumping

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to control flooding in a storm event. We are enthusiastic about the consideration of approaches besides building barriers, such as managed realignment, nature-based solutions, and adapting structures to flooding.

Shoreline Protection. The Bay Plan establishes criteria by which new shoreline protection projects may be authorized and by which existing shoreline protection may be maintained or reconstructed. Shoreline Protection Policy 1 states that “New shoreline protection projects and the maintenance or reconstruction of existing projects and uses should be authorized if: (a) the project is necessary to provide flood or erosion protection for (i) existing development, use or infrastructure, or (ii) proposed development, use or infrastructure that is consistent with other Bay Plan policies; (b) the type of the protective structure is appropriate for the project site, the uses to be protected, and the causes and conditions of erosion and flooding at the site; (c) the project is properly engineered to provide erosion control and flood protection for the expected life of the project based on a 100-year flood event that takes future sea level rise into account; (d) the project is properly designed and constructed to prevent significant impediments to physical and visual public access; (e) the protection is integrated with current or planned adjacent shoreline protection measures; and (f) adverse impacts to adjacent or nearby areas, such as increased flooding or accelerated erosion, are avoided or minimized. If such impacts cannot be avoided or minimized, measures to compensate should be required.” Given the potential scale of the project, the EIS should pay particular attention to evaluating and minimizing adverse flooding impacts to nearby areas, as described in part (f). Per Shoreline Protection Policy 4, authorized protective projects should be regularly maintained according to a long-term maintenance program to assure that the shoreline will be protected from tidal erosion and flooding and that the effects of the shoreline protection project on natural resources during the life of the project will be the minimum necessary.

Shoreline Protection Policy No. 5 requires that “all shoreline protection projects should evaluate the use of natural and nature-based features such as marsh vegetation, levees with transitional ecotone habitat, mudflats, beaches, and oyster reefs, and should incorporate these features to the greatest extent practicable. Ecosystem benefits, including habitat and water quality improvement, should be considered in determining the amount of fill necessary for the project purpose. Suitability and sustainability of proposed shoreline protection and restoration strategies at the project site should be determined using the best available science on shoreline adaptation and restoration.” Shoreline Protection Policy No. 7 states that “the Commission should encourage pilot and demonstration project to research and demonstrate the benefits of incorporating natural and nature-based techniques in San Francisco Bay.” Shoreline Protection Policy 2 states equitable and culturally-relevant community outreach and engagement should be conducted to meaningfully involve nearby communities for all shoreline protection project planning and design processes – other than maintenance and in-kind repairs to existing protection structures or small shoreline protection projects – in order to supplement technical analysis with local expertise and traditional knowledge and reduce unintended consequences. In particular, vulnerable, disadvantaged, and/or underrepresented communities should be involved. If such previous outreach and engagement did not occur, further outreach and engagement should be conducted prior to Commission action.

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Finally, the Bay Plan Water Quality Policy No. 7 requires that, whenever practicable, native vegetation buffer areas should be used in place of hard shoreline and bank erosion control methods (e.g., rock riprap) where appropriate and practicable. New shoreline protection projects are also to avoid adverse impacts to natural resources and public access, and mitigation or alternative public access must be provided when avoidance is not possible. The EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Shoreline Protection policies.

Dredging. The Bay Plan includes findings and policies regarding dredging in the Bay. The EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Dredging policies, if applicable.

Water-Related Industry. The Bay Plan includes policies regarding water-related industry, which state, in part, that “Sites designated for both water-related industry and port uses in the Bay Plan should be reserved for those industries and port uses that require navigable, deep water for receiving materials or shipping products by water in order to gain a significant transportation cost advantage... Water-related industry and port sites should be planned and managed so as to avoid wasteful use of the limited supply of waterfront land...” The EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with relevant Bay Plan Water-Related Industry policies, if applicable.

Public Access, Recreation, and Appearance, Design, and Scenic Views. Section 66602 of the McAtter-Petris Act states, in part, “that maximum feasible public access, consistent with a proposed project, should be provided.” Thus, the Commission can only approve a project within its jurisdiction if it provides maximum feasible public access, consistent with the project. Bay Plan policies regarding Recreation state, in part, “diverse and accessible water-oriented recreational facilities, such as marinas, launch ramps, beaches, and fishing piers, should be provided to meet the needs of a growing and diverse population... Recreational facilities, such as waterfront parks, trails, marinas, live-aboard boats, non-motorized small boat access, fishing piers, launching lanes, and beaches should be encouraged...”

Bay Plan policies regarding Public Access state, in part, that “in addition to the public access to the Bay provided by waterfront parks, beaches, marinas, and fishing piers, maximum feasible access to and along the waterfront and on any permitted fills should be provided in and through every new development in the Bay or on the shoreline...Public access to some natural areas should be provided to permit study and enjoyment of these areas...Public access should be sited, designed, managed and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding. Whenever public access to the Bay is provided as a condition of development, on fill or on the shoreline, the access should be permanently guaranteed...Diverse and interesting public access experiences should be provided which would encourage users to remain in the designated access areas to avoid or minimize potential adverse effects on wildlife and their habitat.” Public Access Policy No. 5 states “[p]ublic access that substantially changes the use or character of the site should be sited, designed, and managed based on meaningful community involvement to create public access that is inclusive and welcoming to all and embraces local multicultural and indigenous

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history and presence...” The policies state that public access improvements should not only be consistent with the project, but also incorporate the culture(s) of the local community, and provide “...barrier free access for persons with disabilities, for people of all income levels, and for people of all cultures.”

Additionally, Bay Plan policies on Appearance, Design, and Scenic Views (ADSV) state, in part, that: “Maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas...” Bay Plan ADSV Policy 5 states that “To enhance the maritime atmosphere of the Bay Area, ports should be designed, whenever feasible, to permit public access and viewing of port activities by means of (a) view points (e.g., piers, platforms, or towers), restaurants, that would not interfere with port operations, (b) openings between buildings and other site designs that permit views from nearby roads.” The EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan policies regarding Public Access, Recreation and Appearance, Design and Scenic Views.

Fill for Commercial Recreation. The Bay Plan includes policies regarding Fill for Bay-Oriented Commercial Recreation and Bay-Oriented Public Assembly on Privately-Owned or Publicly-Owned Property, as well as policies regarding Filling for Public Trust Uses on Publicly-Owned Property Granted in Trust to a Public Agency by the Legislature. The EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with BCDC’s law and Bay Plan policies regarding fill.

Mitigation. Bay Plan policies on Mitigation require projects to “compensate for unavoidable adverse impacts to the natural resources of the Bay...” The policies provide specific criteria for how compensatory mitigation projects should be sited and designed, community involvement in providing compensatory mitigation, when compensatory mitigation should occur relative to the impacts, and how to determine whether banking or in-lieu fee programs are acceptable. The policies also state that “Mitigation programs should be coordinated with all affected local, state, and federal agencies having jurisdiction or mitigation expertise to ensure, to the maximum practicable extent, a single mitigation program that satisfies the policies of all the affected agencies.” The EIS should discuss whether any mitigation is expected to be necessary to compensate for the potential impacts of the potential coastal storm and flood risk management alternatives, and if so, how the mitigation is consistent with Bay Plan Mitigation policies.

Public Trust. The Bay Plan includes policies regarding the Public Trust, which state, in part, that “when the Commission takes any action affecting lands subject to the public trust, it should assure that action is consistent with the public trust needs for the area and, in case of lands subject to legislative grants [such as the Burton Act of 1968], should also assure that the terms of the grant are satisfied and the project is in furtherance of statewide purposes.” The EIS should analyze the consistency of the potential coastal storm and flood risk management alternatives with Bay Plan Public Trust policies.

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Thank you for your consideration of these comments. If you have any questions regarding this letter, please do not hesitate to contact me at (415) 352-3642 or via email at Jessica.Fain@bcdcc.ca.gov.

Sincerely,



JESSICA FAIN
Planning Director

cc. Brad Benson, Port of San Francisco, brad.benson@sfport.com
Kelley Capone, Port of San Francisco, kelley.capone@sfport.com>

From: [Truitt, Robin](#)
To: [SF Waterfront](#)
Subject: [Non-DoD Source] EPA's scoping comments on the San Francisco Waterfront Coastal Flood Study
Date: Monday, August 28, 2023 2:26:28 PM
Attachments: [2023-08-28 EPAs Scoping Comments San Francisco Waterfront Feasibility Study signed.pdf](#)

Dear Melinda Fisher –

Please find attached EPA's scoping comments on the Corps' Notice of Intent to Prepare an Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study. We thank you for the opportunity to provide comments. Please contact me if you have any questions, and we look forward to working with you.

Ms. Robin Truitt, Life Scientist
USEPA, Region 9
Environmental Review Branch
75 Hawthorne St., TIP-2
San Francisco, CA 94105
(415) 972-3742
Truitt.Robin@epa.gov

**Note that the federal government is transitioning to a fully electronic environment. Please transmit all correspondence/documents electronically.*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

August 28, 2023

Via email: SFWFRS@usace.army.mil

Ms. Melinda Fisher
U.S. Army Corps of Engineers, Tulsa District
Attn: RPEC-SFWS
2488 E. 81st Street
Tulsa, Oklahoma 74137

Subject: EPA's Scoping Comments on the Notice of Intent to Prepare an Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study, San Francisco, California

Dear Melinda Fisher:

The U.S. Environmental Protection Agency has reviewed the Notice of Intent (NOI) to prepare a integrated feasibility report and Environmental Impact Statement (SEIS) for the subject project. Our comments are provided pursuant to the National Environmental Policy Act and our independent NEPA review authority under Section 309 of the Clean Air Act. The EPA is serving as a cooperating agency for the project NEPA analysis and will participate in meetings and review reports and administrative and final drafts of the EIS.

The Corps and Port of San Francisco have partnered to investigate the feasibility of managing tidal and fluvial flooding and sea level rise along 7.5 miles of San Francisco's bayside shoreline between Aquatic Park and Heron's Head Park. Flooding in the project area could cause extensive damage to public infrastructure and private property, loss of life, degradation of the natural environment, and adverse changes to the social and economic character of the waterfront community. The Notice of Intent proposes seven adaptable, structural and non-structural, defensive or protective alternatives designed to reduce flooding risks during storms and extreme tides at various levels of expected sea level rise.

As detailed further below, the EPA recommends that the Draft Feasibility Study and EIS consider climate change effects and improve surrounding habitat, as well as maximize opportunities to:

- Discuss appropriate project designs that can adapt the waterfront and its uses over time while recognizing that decisions made today influence the options available to future generations with different environmental and social conditions;
- Incorporate sea level rise models that further long-term resiliency of project components;
- View all alternatives and adaptation strategies, especially at the southernmost end of the project area, through an equity lens to ensure that benefits accrue to, and burdens are minimized for, communities with environmental justice concerns;
- Incorporate sustainable nature-based features and stormwater capture/treatment into the alternatives to enhance the quality of Bay water and habitat.

We appreciate the opportunity to provide scoping comments and are available to discuss any questions on the comments. I can be reached at Truitt.Robin@epa.gov or (415) 972-4372.

Sincerely,

ROBERTA TRUITT

Digitally signed by ROBERTA
TRUITT

Date: 2023.08.28 12:17:41 -07'00'

Robin Truitt
Environmental Review Branch

Enclosure: Detailed Comments

CC: San Francisco Port Authority: Steven Reel, Adam Varat, Kelley Capone, Brad Benson
Bay Conservation & Development Cmsn: Ashley Tomerlin, Eric Buehmann, Jessica Fain
San Francisco Planning Dept: Jessica Range
Water Resources Control Boards: Keith Lichten, Samantha Harper, Xavier Fernandez, Sturgis Tahsa
Calif. Fish & Wildlife: Craig Weightman, Eric Wilkins, Arn Aarreberg, Erin Chapell
State Lands Cmsn: Michael Wells, Reid Boggiano, Maren Farnum
NOAA: Brian Meux
U.S. Fish and Wildlife Service: Stephanie Millsap, Steven Schoenberg
National Park Service: Jenny Parker, Christopher Johnson, Kelly Clark
Army Corps of Engineers: Julie Beagle, Raven Blakeway

U.S. ENVIRONMENTAL PROTECTION AGENCY’S DETAILED SCOPING COMMENTS ON THE NOTICE OF INTENT TO PREPARE AN INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL IMPACT STATEMENT FOR THE SAN FRANCISCO WATERFRONT COASTAL FLOOD STUDY, SAN FRANCISCO, CALIFORNIA – August 28, 2023

NEPA COMPLIANCE

Even though the Notice does not indicate what avenue the Corps is pursuing for NEPA compliance, the EPA understands that a programmatic-type EIS is being considered. A programmatic EIS is useful to frame support for planned projects over time, and to analyze which types and extent of viable flood control and sea level rise design protections are most suitable for the various reaches within the project area. To the degree possible, EPA recommends that potential site- or project-specific impacts of individual actions be identified as well as those circumstances or triggers that would warrant later environmental analysis as tiered from this EIS. The EPA recommends that the EIS discuss the projected lifespan of near-term projects to provide flood protection and allow for long-term alternatives for different timeframes or the implementation of more detailed designs.

Although there may not be enough detail to identify site- or project-specific compensatory mitigation, the EPA would recommend that a programmatic EIS develop a global set of assumptions, permit conditions or best management practices, applicable to all future projects, that address avoidance and minimization measures. And, to the extent certain alternatives or types of projects are reasonably foreseeable, couple these with earlier seismic or other proposed actions in the area to analyze the cumulative or combined effect of these projects on resources.

The EPA appreciates that an inclusive public involvement process to develop a shared vision, principles and goals for flood studies and waterfront resilience and adaptation is already underway. But, as planning and adaptation options have a long-term horizon, the EPA recommends that the Port and Corps continue, and perhaps re-initiate, outreach efforts and meaningful engagement with affected or interested communities as specific projects are designed.

Concurrent Clean Water Act Section 404 Process

EPA encourages the Corps to integrate Clean Water Act (CWA) Section 404 regulatory requirements into the NEPA process to streamline environmental review by using NEPA documents for multiple permitting processes. Wetlands within the project boundaries that have a continuous surface connection with San Francisco Bay will be regulated under the Clean Water Act pursuant to the Supreme Court’s decision in *Sackett v. EPA* dated May 25, 2023. Although the EPA is aware that the Corps must calculate the costs of project features in meeting the purpose and need,¹ use the NEPA process to clearly and independently demonstrate that the preferred alternative or plan is the Least Environmentally Damaging Practicable Alternative (LEDPA) that achieves the overall project purpose with the fewest direct, secondary, and cumulative impacts to aquatic resources (40 CFR 230).

STATEMENT OF PURPOSE AND NEED

The Draft EIS for the proposed project should clearly identify the underlying purpose and need that is the basis for proposing the range of alternatives (40 CFR 1502.13). The *purpose* of the proposed action is typically the specific objectives of the activity, while the *need* for the proposed action may be to eliminate a broader underlying problem or take advantage of an opportunity. The purpose and need

¹ Costs may be referenced in Table 6 Archetype Cost Estimates for Adaptation Activity Types at <https://abag.ca.gov/our-work/resilience/planning/sea-level-rise-adaptation-funding-and-investment-framework>

should be a clear, objective statement of the rationale for the proposed project, as it provides the framework for identifying project alternatives. The Draft EIS should concisely identify why the project is being proposed and should focus on the specific desired outcomes of the project (e.g., public health and safety, minimization of adverse changes to the social and economic character of the waterfront community, etc.) rather than prescribing a predetermined resolution.

The EPA recommends building upon pre-existing work that has evaluated flood and seismic risks for both public and private assets, reviewed the complex regulatory environment that governs coastal planning and development activities, and identified more detailed actions that can be taken now and in the near future to meet the challenge of rising seas, including the Sea Level Rise Vulnerability and Consequences Assessment (2020)², the Sea Level Rise Action Plan (2016)³ and the Port's Waterfront Resilience Program and adaptation strategies.⁴

EXISTING ENVIRONMENTAL CONDITIONS

Existing conditions are a key frame of reference for quantifying and characterizing adverse and positive environmental effects. The EPA recommends evaluating the effects of project alternatives against existing environmental conditions as the primary basis for comparison. If the No Action Alternative A includes future actions and is not representative of current conditions, we recommend also evaluating the no-action alternative against the existing condition baseline. Although alternatives can also be compared against a projected no action scenario that includes reasonably foreseeable future conditions, this approach can result in additional uncertainty for the alternatives analysis. By utilizing existing environmental conditions as a point of comparison, future changes to environmental resources can be more accurately measured for all alternatives.

EPA recommends that the Future without Project describe potential effects on the shoreline that could affect transportation, property values and displacement of businesses, jobs, and homes. Identify which areas of the shoreline are receding landward, being eroded, experience overtopping by frequent "high tide flooding" in the absence of large storms, or could be subject to daily tidal flooding over time certain water levels. We also recommend the following when defining existing environmental conditions:

- Verify whether historical data (e.g., data 5 years or older) are representative of current conditions.
- Include resources directly impacted by potential project footprints within the geographic scope of analysis, including inundation, as well as the resources indirectly (or secondarily) impacted by any of the alternatives.
- Provide clear maps of the project area, including wetland and regional water features.
- Conduct a wetland function analysis if there is any potential that an alternative will cause impacts.

² sfplanning.s3.amazonaws.com/default/files/plans-and-programs/planning-for-the-city/sea-level-rise/SLRVCA_Report_Full_Report.pdf

³ sfplanning.s3.amazonaws.com/default/files/plans-and-programs/planning-for-the-city/sea-level-rise/160309_SLRAP_Final_ED.pdf

⁴ [Draft Waterfront Adaptation Strategies | SF Port; https://sfport.com/files/2022-10/0112022_item_11a_draft_waterfront_adaptation_strategies_final.pdf\(sfport.com\)](https://sfport.com/files/2022-10/0112022_item_11a_draft_waterfront_adaptation_strategies_final.pdf)

ALTERNATIVES ANALYSIS

The NOI lists six potential alternatives to ‘No Action’ that include structural, non-structural or natural and nature-based features, at three rates of sea level rise. These range from Alternative A that would take no additional action to reduce flood risks beyond projects that are already approved, to Alternative G which would consider areas of managed retreat, new zoning, and wetland restoration. Alternative A currently represents the baseline for comparison of costs, benefits, and environmental and social impacts with other alternatives (but see *Existing Environmental Conditions* section, above).

Discuss these alternatives, in whole or in combination, in the context of the Corps’ authorities and detail how they fulfill the project’s purpose and need. Address whether there are any management measures or alternative actions that may fall outside the Corps’ jurisdiction but may compliment or help achieve the Corps’ goals or objectives or avoid significant environmental impacts (40 CFR Section 1502.14(c)). The Draft EIS should provide a clear discussion of the reasons for the elimination of alternatives which are not evaluated in detail.

Discuss the various project types - structural (gray), non-structural (floodproofing), natural and nature based features (green), and any of the nuanced components (armoring, living seawalls, ecotone levees) that would be appropriate for each reach under each level of rise and habitats, e.g., creeks, piers, built environment. Describe the advantages and disadvantages of each type of protection and the circumstances under which they are best utilized or effective. For example, while an engineered seawall may effectively protect infrastructure or city services against flood damage, it also may disrupt ecological processes or accelerate erosion at each end.

EPA recommends that that key terms be listed, defined and standardized in the EIS. Distinguish between structural/non-structural, grey/green, relocation/managed retreat, seawalls/vertical shorelines, etc. For example, it is not clear why ‘floodproofing’ that involves raising buildings would not be considered ‘structural,’ like curb extensions or berms. Further, the NOI states that ‘managed retreat’ or relocation are possibilities under Alternatives B, F and G, but distinguishing between the terms, and what each entails, is unclear. Discuss the types of natural or nature-based features (NNBF) that could be used alone or in combination with structural or non-structural defenses, e.g., living seawalls, ecotone levees, ecological armoring and wetland preservation/restoration, and their efficacy in meeting the project purposes and needs.

The earliest strategies were based on 1.5 feet to 3.5 feet of sea level rise by 2100, which is typically less than the level of sea level rise currently considered for local and state projects. The EPA recommends that the EIS use the best available science-based assumptions for determining the planning year horizon and flood heights. Consider the State of California’s *Sea-Level Rise Guidance*⁵ which is widely used throughout the state for planning and permitting purposes and the *Sea Level Rise Adaptation Funding and Investment Framework prepared by Metropolitan Transportation Commission, Association of Bay Area Governments and Bay Conservation and Development Commission (2022-2023)*⁶ [3.5’ - 4.9’ of sea level rise is used to identify which segments of shoreline may be vulnerable to significant flooding].

We recommend comparing or highlighting differences between measures deployable at lower rates of rise versus those at higher rates, as well as analyzing alternatives or features that ‘defend’ infrastructure

⁵ Ocean Protection Council. (2018). State of California Sea-Level Rise Guidance 2018 Update.

https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf

⁶ *Sea Level Rise Adaptation Funding and Investment Framework | Association of Bay Area Governments (ca.gov)*;

<https://abag.ca.gov/our-work/resilience/planning/sea-level-rise-adaptation-funding-and-investment-framework>

or communities versus those that ‘work or live with water.’ The EPA also recommends that the EIS assist decision-makers and the public in envisioning what a coastal flood defense system that protects against the worst-case scenario (7’ sea level rise?) would look like.

The EPA recommends that the EIS identify the levels of risk and vulnerabilities for each reach within the project area and eliminate alternatives that are insufficiently protective, not designed to protect infrastructure or communities for as long as needed, or preclude later project options. Consider what types of projects may be needed early or on an interim basis to provide some level of protection and whether the costs justify the benefits of these short-term actions.

IMPACTS ANALYSIS

A robust range of alternatives will include options for avoiding significant environmental impacts. The EIS should clearly describe the rationale used to determine whether impacts of an alternative are significant or not. Thresholds of significance should be determined by considering the context and intensity of an action and its effects (40 CFR 1508.27). Several significant environmental and social issues were raised during early scoping and include minimizing bay fill; the effects of high rates of sea level rise on any alternative considered; disruptions to businesses, transportation corridors and walking paths; environmental justice impacts on historically disadvantaged communities; impacts to water quality from the release of legacy contaminants; and the limited time to implement any of the strategies. EPA recommends that these issues be address in the EIS and generally supports project activities that would provide public access to and along the waterfront, preserve historical and cultural resources, and protect or enhance aquatic resources and habitats

The environmental impacts – beneficial and adverse – of the proposal and alternatives should be presented in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public (40 CFR 1502.14). The potential environmental impacts of each alternative should be quantified to the greatest extent possible (e.g., acres of wetlands impacted; changes to water quality standards).

The EPA is aware that the waterfront and inland areas impacted by sea level rise may also face stormwater and emergent groundwater hazards that threaten public infrastructure and private homes and businesses. The EPA recommends that any adaptation strategies that increase shoreline resilience to coastal flooding will need to consider these other flood sources as well. Additionally, discuss the use of bay fill as a defense that may be required to protect existing communities, but also analyze why the use of artificial or reclaimed fill should be limited or minimized consistent with San Francisco Bay Plan⁷ guidance.

Use available mapping and other information (e.g., the SFEI Resilience Atlas,⁸ National Wetlands Inventory⁹) to map sea level rise and important natural resources. Document and quantify (including dollar values) the value of natural and cultural resources to improve public understanding and acceptance of the need for protection.

The EPA offers the following recommendations for analyzing and disclosing impacts in the EIS:

- Include appropriate baselines for the resources of concern with an explanation as to why those baselines were selected; Discuss the degree to which the action may adversely affect housing or

⁷ [San Francisco Bay Plan \(ca.gov\)](https://www.sfdph.org/dph/eha/assessments/Pages/San-Francisco-Bay-Plan.aspx)

⁸ <https://resilienceatlas.sfei.org/>

⁹ <https://www.fws.gov/program/national-wetlands-inventory>

businesses, transportation and ports, or cause loss or destruction of important scientific, cultural, or historical resources.

- Include a description of the affected environment that focuses on each affected resource or ecosystem. Identify the affected environment through perception of meaningful impacts and natural boundaries rather than predetermined geographic areas. Discuss the degree to which potential effects or mitigation measures are highly uncertain or technically or scientifically controversial.
- Focus on resources of concern, i.e., those resources that are most “at risk” before mitigation. Identify which resources are analyzed, which ones are not, and why. For this project, discuss the degree to which the action may adversely affect water quality and aquatic resources in the nearshore environment, as identified by state and federal resource agencies.
- Identify all other on-going, planned, and reasonably foreseeable projects in the study area. Where studies exist on the environmental impacts of these other projects, use these studies as sources for quantifying impacts. Refer to the CEQ report, *Considering Cumulative Impacts under NEPA*¹⁰ as a systematic way to analyze cumulative effects.

While compensatory mitigation including adverse effects on aquatic habitats, water quality, and air quality may not be able to be quantified at the programmatic level, the EIS should include an analysis of how adverse impacts to these resources can be avoided or minimized through project design.

EPA anticipates that long-term benefits to life safety, critical infrastructure, utilities, disadvantaged communities and the local economy will be realized by adherence to the various federal directives addressing climate change and environmental justice as described below.

CLIMATE CHANGE AND RESILIENCY

On January 9, 2023, the Council on Environmental Quality (CEQ) published interim guidance¹¹ to assist federal agencies in assessing and disclosing climate change impacts during environmental reviews. CEQ developed this guidance in response to EO 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*. This interim guidance is effective immediately. As discussed in this guidance, consider: (1) the potential effects of the proposed action on climate change, including by assessing both GHG emissions and reductions from the proposed action; and (2) the effects of climate change on the proposed action and its environmental impacts. An accurate and clear climate change analysis will help promote climate change resilience and adaptation and prioritize the need to ensure climate-resilient infrastructure by considering the reasonably foreseeable effects of climate change on infrastructure investments and the resources needed to protect such investments over their lifetime.

Sea Level Rise

Relatively small changes in average sea levels can have large effects on tidal flood frequency. The potential to inundate large swaths of the project area are expected to be affected by storm surge and wave inundation in combination with future sea level rise (SLR). Increases in SLR are anticipated to lead to more frequent and intense coastal flooding and erosion events; threatening infrastructure, including drinking water, housing, business, and transportation, as well as historical and cultural sites.

¹⁰ [NEPA | National Environmental Policy Act - Cumulative Effects \(doe.gov\)](https://ceq.doe.gov/publications/cumulative_effects.html),
https://ceq.doe.gov/publications/cumulative_effects.html

¹¹ <https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate>; 2023-01-CEQ interim guidance on GHG emissions and climate change.pdf (energy.gov)

Climate change induce sea level rise could also result in habitat loss and ecosystem degradation. Flood and shoreline damages could be exacerbated by sea level variability and more extreme El Nino and La Nina events.¹²

In addition, the EPA is aware that nearly all Bay Area counties are concerned that impacts of rising groundwater along the Bay will be more severe than from the more than 3 feet of sea level rise that could take place by the middle of the century.¹³ Projects need to be planned with both sea level and groundwater rise in mind. In keeping with the current state of science, those involved in planning for shoreline resilience should remember that San Francisco Bay is an interconnected physical system. Though it is locally diverse along its perimeter, the Bay links all of its contiguous jurisdictions and how they collectively respond to the threat of sea level rise will determine the Bay's long-term health and fate. Operational Landscape Units (OLUs) provide a critical planning framework for prioritizing appropriate nature-based solutions that can be cost-effective and help to avoid unintended impacts in neighboring locales.¹⁴

These slow-moving threats have already provided the impetus for the City, its Port, and other regional, state and federal authorities to assess risks to people, the economy and the environment.¹⁵ San Francisco's *Sea Level Rise Vulnerability and Consequence Assessment*¹⁶ identified a SLR Vulnerability Zone that could be flooded by a 100 year coastal event (1% annual chance of exceedance in any one year) and 66 inches of SLR.¹⁷ It considers shared baseline information to support decision making under a range of SLR projections, over broad timespans, and across sectors.¹⁸ The exposure assessment rates the expected performance of each asset inventoried during periods of temporary or permanent flooding and provides a framework for future planning and project prioritization.

The Assessment identified key considerations to guide planning efforts to ensure that strategies are effective, efficient, equitable and environmentally appropriate. The Assessment states that successful adaptation planning should:

- Begin with robust community engagement to ensure strategies will meet local needs and build public and political support for action;
- Prioritize and include vulnerable neighborhoods that already bear disproportionate environmental contamination burdens and will be most impacted by future flooding;
- Include natural solutions where possible to improve the City's environment and provide open space recreation opportunities;
- Create a decision-making framework for when and where to implement facility-specific floodproofing versus neighborhood-scale shoreline strategies;
- Identify strategies that could be implemented by multiple actors, including individual agencies, private landowners, and the City as a whole;

¹² See generally, *Climate Change Indicators: Coastal Flooding* | US EPA, <https://www.epa.gov/climate-indicators/climate-change-indicators-coastal-flooding>

¹³ See generally the work of Kristina Hill, Director, U.C. Berkeley's Institute of Urban and Regional Development.

¹⁴ SFEI and SPUR. 2019. San Francisco Bay Shoreline Adaptation Atlas: Working with Nature to Plan for Sea Level Rise Using Operational Landscape Units. Publication #915, San Francisco Estuary Institute, Richmond, CA. Version 1.0

¹⁵ See, e.g., *SFEI 2015 Landscape Resilience Framework.pdf*

¹⁶ *Sea Level Rise Adaptation | SF Planning*, <https://sfplanning.org/sea-level-rise-action-plan>

¹⁷ Because the Assessment states that it did not consider the most extreme emerging science in presenting a range of possible scenarios (p. 21), the EPA recommends that authoritative information on the highest projected water levels, or worst-case scenario, be presented in the EIS to avoid a crisis response.

¹⁸ Sector asset categories include transportation, water distribution, wastewater, power, public safety, open space and port facilities.

- Adopt adaptation policies for private development and public investment in addition to implementing physical strategies;
- Identify potential funding sources and identify appropriate agencies to lead adaptation projects that cross agency jurisdictions;
- Balance uncertainty in long-term climate projections with the need for urgent action; and
- Integrate SLR and coastal flooding programs with other City or Bay-wide resilience efforts

The EPA acknowledges all the prior work that has been done to promote SLR resilience, understands that several social-ecological studies are underway, and recognizes that current planning efforts include engagement with a variety of interested communities and groups. The EPA supports continued cooperation between all levels of government and continued outreach to, and wide-spread involvement of, those parties most adversely affected. The EPA recommends that the EIS discuss the extent to which the Corps can utilize the SLR Vulnerability Assessment and the studies identified therein, e.g., Embarcadero Seawall Program (p. 45) and identify data gaps needed to develop alternatives for the feasibility study and how those data can be obtained.

Adaptive Management

The EPA supports the use of adaptive management for decision-making where there is uncertainty about the level of impact, the ability of a resource to respond to change, or the effectiveness of mitigation. The EPA recommends detailing the Port of San Francisco's *Draft Waterfront Adaptation Strategies* which presented options to reduce flood and seismic risk along the Port's entire waterfront jurisdiction, from Heron's Head Park to Fisherman's Wharf. The Strategies are intended to guide decisions about where, when, and how high to build flood defenses; how and when to adapt key buildings and infrastructure to ensure continued operations of City services; and where to employ natural and nature-based features. It also includes recommendations for policy changes that will best defend public and private lands, preserve and grow housing and jobs, and create recreational opportunities, waterfront access, and improved Bay habitat.

The EPA supports the development of an Adaptive Management Plan which includes these elements:

- Identifies specific resource value goals and management objectives;
- Discusses the modeling efforts used to predict impacts and identify data gaps;
- Discusses assumptions about expected outcomes and the level of impact that would be deemed acceptable;
- Creates a specific monitoring plan that can accurately measure the impacts and the effectiveness of mitigation;
- Discusses the level of impact that would trigger action, including additional mitigation measures that would be implemented should a threshold be exceeded;
- Identifies funding sources for long-term mitigation and monitoring, if applicable; and
- Identifies mechanisms for public disclosure of the monitoring results and involvement in adaptive management decisions.

Monitoring and Adaptive Management

Monitoring is a key provision of adaptive management. Where there is insufficient information available about the resource, uncertainties regarding the rate of sea level rise, or the effectiveness of an alternative design, we recommend studies be included as condition of the authorization to address information gaps and advance the adaptive management strategy. We recommend that a monitoring and mitigation plan be required to ensure compliance with all proposed avoidance and minimization measures to assess their effectiveness over time. In the EIS, describe monitoring programs and how they will be used as effective

feedback mechanisms so that any needed adjustments can be made to the project components to meet environmental objectives throughout the life of the project.

Floodplains and Connectivity

Executive Order 13690 – *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*, amended Executive Order 11988 – *Floodplain Management* and defined “floodplain.” It states that agencies shall consider alternatives to locating project components within the floodplain to avoid adverse effects and incompatible development. EPA recommends that the Draft EIS explain how each alternative would be consistent with the directives in Executive Order 13690.¹⁹

Best practices include minimizing floodplain fills and other actions that require fills, such as construction of highways or infrastructure; relocating nonconforming structures and facilities outside of the floodplain and returning the site to natural contours; preserving free and natural drainages; and restoring damaged riparian areas and vegetation. Where possible, the agency is required to use natural systems, ecosystem process, and nature-based approaches when developing alternatives for consideration. The EPA recommends that the EIS discuss where flood loss reduction efforts conflict with those to protect and restore floodplain natural and cultural resources, and identify where flood loss reduction and natural resource protection efforts can be successfully combined.

Connectivity and corridors are important across terrestrial, marine, and freshwater environments and increasing connectivity is one of the most frequently recommended climate adaptation strategies for biodiversity management. Maintaining connected habitats also can help sustain ecosystem services, such as flood risk reduction, extreme heat mitigation, health and public safety, and access to nature. The Council on Environmental Quality’s *Guidance for Federal Departments and Agencies on Ecological Connectivity and Wildlife Corridors*,²⁰ issued March 21, 2023, states that federal agencies should seek to incorporate connectivity best practices into planning and decision-making. The EPA recommends that the EIS incorporate shared science and data to identify existing barriers to connectivity that could be removed. Build consideration of connectivity and corridors into planning and decision making by following the Guide’s best management practices including landscape scale nature-based solutions and habitat restoration.

Climate Change Guidance on Greenhouse Gas Emissions

On January 9, 2023, the Council on Environmental Quality published interim guidance²¹ to assist federal agencies in assessing and disclosing climate change impacts during environmental reviews. CEQ developed this guidance in response to Executive Order 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*. This interim guidance is currently in effect. CEQ indicated that agencies should use this interim guidance to inform the NEPA review for all new proposed actions and may use it for evaluations in progress, as agencies deem appropriate, to consider alternatives or help address comments raised through the public comment process. EPA recommends the Draft EIS apply the interim guidance to ensure robust consideration of potential climate impacts, mitigation, and adaptation issues.

¹⁹ For more information, go to: <https://www.fema.gov/federal-flood-risk-management-standard-ffrms>.

²⁰ Council on Environmental Quality. March 2023. *Guidance for Federal Departments and Agencies on Ecological Connectivity and Wildlife Corridors* at <https://www.whitehouse.gov/wp-content/uploads/2023/03/230318-Corridors-connectivity-guidance-memo-final-draft-formatted.pdf>

²¹ <https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate>

WATER QUALITY AND AQUATIC RESOURCES

The EPA recommends that the EIS discuss the direct, indirect and cumulative effects of proposed flood protection activities, including construction, operations and maintenance, on water quality standards, including sedimentation, temperature and water column turbidity, in project area creeks and the Bay. Discuss plans to control urban runoff and stormwaters and consider whether treatment may be required. Identify point and non-point sources of pollutant discharges within the project area, including wastewater and sewage facilities needed. EPA recommends that wetland and floodplain vegetation buffers be restored or maintained to reduce sedimentation and delivery of chemical pollutants to the waterbody and supports the use of erosion and sedimentation control measures during construction/grading.

Impairment

Throughout the San Francisco Bay, state water quality standards are exceeded for PCBs, pesticides, invasive species, mercury and other metals and toxic substances. Beaches have unacceptable levels of bacteria due to sewage spills and habitat destruction has eliminated more than 90 percent of shoreline wetlands over the last 150 years.²² The San Francisco Bay, Islais Creek, and Mission Creek are on the Clean Water Act section 303(d) list of impaired waters for PCBs, mercury, and other toxic metals, organics, pesticides and nutrients which exceed water quality standards. There is a plan for restoring impaired waters that identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards – the Total Maximum Daily Load (TMDL). Therefore, EPA recommends that the EIS identify the impairments to the Bay and creeks and confirm that project components align with existing TMDLs in compliance with the San Francisco Regional Water Quality Control Board's Plans and Clean Water Act section 401 water quality certification requirements.²³

Riparian and Aquatic Ecosystems

Analyze the direct, indirect (secondary), and cumulative impacts to the aquatic and other resource characteristics, including impacts to stream channel morphology; riparian function; fish and invertebrate assemblages; threatened, endangered and/or sensitive species and their habitat; and other resources within the geographic scope of analysis. Additionally, we recommend that the impact analysis consider the potential for non-linear responses, where incremental impacts of the proposed project may result in non-incremental changes in environmental conditions. Analyze any changes in surface and groundwater hydrology supporting streams and wetlands or functional conversion of wetland types.

Describe how the project would comply with Executive Order 11990, *Protection of Wetlands*, including how wetlands would be identified and avoided. To the extent adverse effects to wetlands are unavoidable, discuss the loss or degradation of wetland functions and values, the assessment method used to make these determinations, and how such impacts would be minimized, offset, or mitigated. EPA recommends offsetting mitigation based on a functional replacement approach rather than acre-to-acre replacement to ensure that the specific wetland functions are replaced in an ecosystem. The EPA notes that any assumptions regarding wetland quality and function should be field verified using an assessment method appropriate for the region and monitored for adaptive management.

We recommend that the Corps include mitigation and its effectiveness at the draft EA or EIS stage for future projects. Continue to consult with the National Marine Fisheries Service and other state and

²² What Are the Challenges? | US EPA, <https://www.epa.gov/sfbay-delta/what-are-challenges>

²³ Surface Water Quality Assessment Program | California State Water Resources Control Board, https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment

federal agencies to develop minimization or mitigation measures in compliance with regulatory program permit requirements and to assess effectiveness. The EPA encourages the Corps to allow public review of mitigation before a final decision for the project is made.

ENVIRONMENTAL JUSTICE

The EPA recommends that the EIS incorporate an environmental justice perspective into all facets of decision-making consistent with Executive Order 14096 *Revitalizing Our Nation's Commitment to Environmental Justice for All* (2023).²⁴ EO 14096 directs agencies to identify, analyze, and address actions related to any Federal regulation, policy, or practice that impair the ability of communities with environmental justice concerns to achieve or maintain a healthy and sustainable environment. Further, it requires agencies to consider best available science and information on any disparate health effects (including risks) arising from exposure to pollution and other environmental hazards. Where available, adopt or require measures that avoid, minimize, or mitigate disproportionate and adverse human health and environmental effects of Federal activities on communities with environmental justice concerns, to the maximum extent practicable.

Identifying Communities with EJ concerns

To comply with EO 14096, a relatively refined understanding of potential adverse impacts on a community-by-community basis is needed to provide decision-makers with the level of detail necessary to make an informed choice between alternatives and determine whether mitigation is available. We strongly encourage the use of EJScreen²⁵ when conducting EJ scoping efforts to find communities who be candidates for further outreach and involvement.

Meaningful Engagement

As communities with EJ concerns are identified, Section 3 of EO 14096 directs agencies to seek out and encourage the involvement of communities with EJ concerns and provide technical assistance tools and resources to assist in facilitating meaningful and informed public participation. Additionally, CEQ's EJ Guidance states "...agencies should elicit the views of the affected populations on measures to mitigate a disproportionately high and adverse human health or environmental effect...and should carefully consider community views in developing and implementing mitigation strategies. Any mitigation measures should reflect the needs and preferences of affected low-income populations, people of color, or Indian tribes to the extent practicable."

To date, the Port has heard from many communities with EJ concerns that their priorities are to protect housing, utilities, transportation, and business and provide disaster recovery facilities. In the EIS, summarize information describing what was done to inform these communities about the project and the potential impacts it would have on their communities, what input was received from the communities, and how that input was utilized in the decisions that were made regarding the project. EPA recommends that the Corps and Port continue meaningful community engagement throughout the planning process to ensure ample time to incorporate community feedback into the project.

Cumulative Effects on Communities with EJ Concerns

EO 14096 clarifies that federal agencies should carry out environmental reviews in a manner that includes the cumulative effects of the proposed action on communities with environmental justice concerns. The NEPA definition of cumulative impact is one "... which results from the incremental

²⁴ <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nations-commitment-to-environmental-justice-for-all/>

²⁵ Available at: <https://ejscreen.epa.gov/mapper/>; User Guide at https://ejscreen.epa.gov/mapper/help/ejscreen_help.pdf

impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR §1508.1(g)(3)). Although all communities would be affected by, and vulnerable to, uncontrolled flooding along the waterfront, it is important to evaluate prior actions and decisions that have resulted in disproportionate burdens.²⁶

Implementing Environmental Justice

The EPA recommends that the EIS clearly identify how the NEPA process and analysis will improve outreach, access civil works information and technical services, and maximize benefits to disadvantaged communities to achieve environmental justice pursuant to the *Assistant Secretary of the Army for Civil Works Memorandum for Commanding General, U.S. Army Corps of Engineers, Implementation of Environmental Justice and the Justice40 Initiative* (March 15, 2022) and its *Interim Environmental Justice Strategic Plan* (December 16, 2022).

EPA is aware that historically underserved communities, particularly in the southeast part of the project area, are often hit first and hardest by climate hazards such as storm and coastal flooding, impacting jobs, housing, and access to and from the community. EPA is concerned that the managed retreat strategies will adversely and disproportionately affect already overburdened communities, or that gentrification enhanced by new open spaces or improved waterfront access will displace or relocate historically underserved communities. Consistent with the Justice40 Initiative,²⁷ discuss how the overall benefits of these federal investments will flow to disadvantaged communities that are marginalized, underserved or overburdened by pollution and flooding. In addition to correcting the adverse effects of climate change, consider opportunities to invest in affordable and sustainable housing, remediate and reduce legacy pollution, and develop critical clean water and wastewater infrastructure.

AIR QUALITY

EPA recommends identifying the magnitude of transportation or construction related air quality impacts from each proposed alternative, including any floodproofing of existing infrastructure, in-water barge work, the elimination of workforce commuting options, potential traffic disruptions, and public health and safety impacts to emergency vehicles. We recommend coordination with local agencies regarding preparation of any traffic control plans that include an adaptive management framework where traffic is monitored and responsive actions are identified. For example, plan to implement more than one commuter transportation option should be based on identified adverse traffic impacts which would not only affect local residents but could slow the construction schedule.

Consider applying the following standard construction and mobile source mitigation measures to each subsequent project, as appropriate:

Fugitive Dust Source Controls

- Phase grading operations and operate water trucks for stabilization of surfaces under windy conditions.

²⁶ For future reference, the Council on Environmental Quality (CEQ) and Office of Science and Technology Policy (OSTP), on behalf of the Ocean Policy Committee (OPC), are seeking to develop an Ocean Justice Strategy for activities across the Federal Government and will propose equitable and just practices to advance safety, health, and prosperity for communities residing near the ocean and its shorelines. 88 Fed.Reg. 37518 (June 8, 2023)

²⁷ [Justice40 Initiative | Environmental Justice | The White House](#)

- Cover vehicles used to transport solid bulk material on public roadways and that have potential to cause visible emissions. Alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard.
- When hauling material and operating non-earthmoving equipment, limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.
- Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is visible on paved roads, or at least twice daily (less during periods of precipitation).

Mobile and Stationary Source Controls

- Minimize use, trips, and unnecessary idling of heavy equipment.²⁸
- Maintain and tune engines per manufacturer’s specifications to perform at EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies.
- Prohibit any tampering with engines and require continuing adherence to manufacturer’s recommendations.²⁹
- Employ periodic, unscheduled inspections to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.
- Use grid-based electricity for construction activities, onsite renewable electricity generation, and/or hydrogen for construction activities rather than diesel and/or gasoline generators, to the extent possible.
- Lease new, cleaner equipment using the best available emissions control technologies that meets the most stringent of applicable federal or state standards.
- Deploy Best Available Control Technology (*BACT*) – Require BACT during construction and operation of projects, and employ the cleanest alternatives available by:
 - a) Soliciting bids that include use of energy and fuel-efficient fleets.
 - b) Soliciting preference construction bids that use BACT, particularly those seeking to deploy zero-emission technologies.
 - c) Employing the use of electricity and/or hydrogen.
 - d) Using lighting systems that are energy efficient, such as LED technology.
 - e) Using the minimum amount of greenhouse gas-emitting construction materials feasible.
 - f) Using cement blended with the maximum feasible amount of flash or other materials that reduce greenhouse gas emissions from cement production.
 - g) Using lighter-colored pavement where feasible.
 - h) Recycling construction debris to the maximum extent.
- Define “Clean Truck” relative to current vehicle emissions standards. One option for defining this technology would be to use products certified to meet the EPA greenhouse gas emissions standards for model year 2021 and newer heavy-duty on-highway vehicles. Another option would be to define it as products certified to meet the CARB optional low NO_x emission standards for heavy-duty engines.^{30, 31}
- In general, commit to the best available emissions control technologies for project equipment:

²⁸ <https://ww2.arb.ca.gov/capp-resource-center/heavy-duty-diesel-vehicle-idling-information>.

²⁹ <https://www.epa.gov/enforcement/epa-tampering-policy-epa-enforcement-policy-vehicle-and-engine-tampering-and>

³⁰ <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-phase-2-greenhouse-gas-emissions-standards>

³¹ <https://ww2.arb.ca.gov/our-work/programs/optional-reduced-nox-standards>

- On-Highway Vehicles servicing infrastructure sites should meet or exceed the EPA exhaust emissions standards for model year 2017 and newer light-duty vehicles and model year 2021 and newer heavy-duty vehicles (e.g., long-haul trucks, refuse haulers, shuttle buses, etc.).^{32, 33}
- Nonroad Vehicles and Equipment servicing infrastructure sites should meet or exceed the EPA Tier 4 exhaust emissions standards for heavy-duty nonroad compression-ignition engines (e.g., nonroad trucks, construction equipment, cargo handlers, etc.).³⁴
- Marine Vessels servicing infrastructure sites should meet or exceed the latest EPA exhaust emissions standards for marine compression-ignition engines (i.e., Tier 4 for Category 1 and 2 vessels, and Tier 3 for Category 3 vessels).³⁵
- Low Emission Equipment Exemptions – The equipment specifications outlined above should be met unless: 1) a piece of specialized equipment is not available for purchase or lease within the United States; or 2) the relevant project contractor has been awarded funds to retrofit existing equipment, or purchase/lease new equipment, but the funds are not yet available.
- Advanced Technology Demonstration and Deployment – Infrastructure project proponents should be encouraged to demonstrate and deploy mobile source technologies that exceed the latest EPA emission performance standards for the equipment categories that are relevant for a given project (e.g., plug-in hybrid-electric vehicles-PHEVs, battery-electric vehicles-BEVs, fuel cell electric vehicles-FCEVs, advanced powertrain nonroad equipment and marine vessels, etc.).^{36, 37, 38}

Administrative Controls

- Reduce the number of worker commuter vehicles travelling to and from the project site. Include carpooling or transit subsidies.
- Plan construction scheduling to minimize vehicle trips and/or nonroad operational hours.
- Locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Identify all commitments to reduce construction emissions and update the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures. Identify where implementation of mitigation measures is rejected based on economic infeasibility.
- Identify sensitive receptors adjacent to emission sources, including residential areas, hospitals, day care or school facilities. Prior to any construction notify residents of the timing of construction and consider providing ways to minimize exposures, such as keeping windows closed.

³² <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-control-air-pollution-motor-vehicles-tier-3>

³³ <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-phase-2-greenhouse-gas-emissions-standards>

³⁴ <https://nepis.epa.gov/Exc/ZyPDF.cgi?Dockey=P100OA05.pdf>

³⁵ <https://nepis.epa.gov/Exc/ZyPDF.cgi?Dockey=P100OA0B.pdf>

³⁶ <https://www.fueleconomy.gov/feg/evsbs.shtml>

³⁷ https://www.fueleconomy.gov/feg/fcv_sbs.shtml

³⁸ <https://globaldrivetozero.org/tools/zero-emission-technology-inventory/>

From: [Sturgis, Tahsa@Waterboards](mailto:Sturgis.Tahsa@Waterboards)
To: [SF Waterfront](#)
Cc: kelly.capone@sfport.com; swrsfbsfseawallproject@jacobs.com; [Fisher, Melinda CIV USARMY CESWF \(USA\)](#); [Fernandez, Xavier@Waterboards](mailto:Fernandez.Xavier@Waterboards)
Subject: [Non-DoD Source] Water Board Comment Letter on the NOI for the Draft IFR-EIS
Date: Friday, September 1, 2023 7:14:10 PM
Attachments: [Outlook-https_ww.png](#)
[SF Waterfront DIFR EIS NOI Comments.pdf](#)
Importance: High

Greetings,

Please find attached our comment letter on the NOI for the Draft IFR-EIS. We apologize for sending you our comments a few days late, but we hope that you will still take these comments into consideration as you prepare the Draft IFR-EIS.

We look forward to continuing collaborating with you in the RAWG as this project moves forward.

Sincerely,

Tahsa Sturgis | *Water Resource Control Engineer*

1515 Clay St., Suite 1400 | Oakland, CA 94612

T: (510) 622-2316



San Francisco Bay Regional Water Quality Control Board

September 1, 2023

U.S. Army Corps of Engineers
Tulsa District, ATTN: RPEC—SFWS
2488 E 81st Street, Tulsa, OK 74137

Subject: Notice of Intent to Prepare an Integrated Feasibility Report and Environmental Impact Statement for the San Francisco Waterfront Coastal Flood Study, San Francisco, California

We have reviewed the Notice of Intent (NOI) to prepare a Draft Integrated Feasibility Report (DIFR) and Environmental Impact Statement (EIS) for the San Francisco Waterfront Coastal Flood Study (Project). The Project's purpose is to investigate the feasibility of managing tidal and fluvial flooding and sea level rise along 7.5 miles of the San Francisco Bay shoreline.

We appreciate the Project's complexity and the central role it plays in the City of San Francisco's (City) future. Like many communities in the Bay, the City is especially vulnerable to the near- and long-term impacts of climate change, sea level rise, and flooding. As such, the Project is an example of the planning and engineering challenges that other Bay Area shoreline communities will face. To that end, we appreciate the collaborative approach and inclusion in the Resource Agency Working Group (RAWG). In our experience, the permitting process for projects, on any scale, is more efficient when the regulatory agencies can provide feedback at the early project design stages. We look forward to continuing our work with the stakeholders on this important project to timely protect the City from anticipated sea level rise.

Comments on Alternatives and Impacts to Aquatic Resources

Projects with potential fill-related impacts to State waters, such as the Project, must first demonstrate their design avoids and minimizes those impacts to the extent practicable. As part of the 401 Certification and WDRs process, we will require a thorough analysis of all the proposed alternatives, Alternatives A through G, including their long-term indirect effects. The Water Board adopted U.S. Environmental Protection Agency's Section 404(b)(1), "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in its Basin Plan and Procedures for *Discharges of Dredged or Fill Material to Waters of the State* (Dredge and Fill Procedures) for determining the circumstance under which filling of waters of the State may be permitted. The Section 404(b)(1) Guidelines and Dredge and Fill Procedures prohibit discharges of fill material into waters of the United States and in the case of the Dredge and Fill Procedures, waters of the State, unless a discharge, as proposed, constitutes the least environmentally damaging practicable alternative that will achieve the project purpose. To accomplish this, the Guidelines and Procedures sequence the order in

which proposals must be approached: 1) Avoid - avoid impacts to waters; 2) Minimize – once impacts have been avoided to the maximum extent practicable, modify the project to minimize impacts to waters; and 3) Compensate – once impacts have been fully minimized, compensate for unavoidable impacts to waters.

Although we appreciate and acknowledge the inclusion of nature-based and hybrid alternatives that are adaptable and do not restrict future construction needs that may arise from potential higher than anticipated sea level rise scenarios, both the direct and indirect effects of structural components must be further analyzed, specifically those included in Alternatives C through E. In addition, opportunities to reduce and avoid the Project's impacts may present themselves by further considering and developing nature-based design alternatives and minimizing the structural components that pose long-term risks to the Bay's water quality and beneficial uses. Although we understand some structural components may be necessary due to site-specific constraints, we are concerned about the indirect effects of those components, such as tide gates and sheet pile walls.

Tide gates pose a significant risk to water quality and beneficial uses. Based on our experience, dissolved oxygen (DO) decreases in standing water associated with tide gate operations, thereby adversely affecting water quality, and posing a substantive potential risk of fish kills when that water is released. Further, the high cost of operating and maintaining tide gates leads to a less than desirable condition where the likelihood of decreased DO concentrations, and related water quality issues, such as a buildup of sulfides, increases over time. Another consideration is the projected increase in the magnitude of storm events in the future caused by climate change. Currently, as climate change continues, in a given year, extreme weather conditions (e.g., droughts, higher magnitude storm events, storm surges) are projected to occur more frequently. When these extreme weather conditions occur, the overall effect of the watershed's upstream condition combined with the historical condition at the proposed Project location (i.e., contamination from sanitary sewer overflows and coal gas plants) will also impact the water quality behind the tide gates.

Comments on Further Consideration of Nature-Based Alternatives

As part of the Corps' 404(b)(1) Alternatives Analysis, we encourage further analysis and consideration of practicable alternatives that incorporate nature-based alternatives while also reducing or eliminating structural components. As stated above, we are required to analyze alternatives that first avoid and minimize impacts to waters of the State. As such, we are fully supportive of design components that avoid impacts, such as planned retreat, and ones that minimize impacts, such as living seawalls. Since the 401 Certification process will require a thorough analysis, in sequence, of avoiding, minimizing, and then compensating the Project's impacts to the extent practicable, we recommended that you incorporate the same approach into the 404(b)(1) Alternatives Analysis that will be prepared for this Project in the DIFR and EIS.

Summary

We are supportive of the Project's intent and consideration of nature-based alternatives and are providing these comments to ensure the Project's 401 Certification process is issued expeditiously by bringing our concerns regarding the long-term indirect effects of the Project's proposed structural components to your attention at this early design stage. We look forward to continuing collaborating in the RAWG on this important project in the as the design moves forward and offering our input along the way.

Sincerely,

Xavier Fernandez
Planning Division Manager