

## MEMORANDUM

August 9, 2019

**TO:** MEMBERS, PORT COMMISSION  
Hon. Kimberly Brandon, President  
Hon. Willie Adams, Vice President  
Hon. Gail Gilman  
Hon. Victor G. Makras  
Hon. Doreen Woo Ho

**FROM:** Elaine Forbes  
Executive Director

**SUBJECT:** Informational presentation regarding the Port's Waterfront Resilience Program and a proposed amendment to the professional services contract with CH2M HILL Engineers, Inc., for planning, engineering, and environmental services for the Embarcadero Seawall Program, the U.S. Army Corps of Engineers Flood Study and related activities

**DIRECTOR'S RECOMMENDATION:** Information Only - No Action Requested

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### EXECUTIVE SUMMARY

This report provides an update to the Port Commission and the public regarding the Port's Waterfront Resilience Program, including the Embarcadero Seawall Program, the U.S. Army Corps of Engineers (USACE) Flood Resiliency Study (Flood Study). The Flood Study – which USACE projects could be up to a \$1 billion effort, subject to future benefit-cost analysis. The Flood Study significantly expands the scope and scale of the Port's resilience efforts, which were previously focused on a \$500 million Phase 1 of the Embarcadero Seawall Program and are now expanded Port-wide.

This report also includes a description and rationale for a proposed amendment to the professional services contract with CH2M HILL Engineers, Inc., (CH2M) for planning, engineering, and environmental services to support these activities. On August 5, 2017, the Port Commission authorized a total contract authorization not to exceed \$39,984,714, with a term of ten years and the Port's option to extend the term for one additional year. The proposed amendment will increase the contract not to exceed amount by \$19,992,357, or 50%, with 30.11% of the amended scope projected for LBE subconsultants, for a total contract not to exceed amount of \$59,977,071. Charter Section 9.118 requires Board of Supervisors' approval of contracts for professional services when the term exceeds ten years, or the contract anticipates expenditures of \$10,000,000 or more.

**THIS PRINT COVERS CALENDAR ITEM NO. 13B**

## STRATEGIC OBJECTIVES

The Port's Waterfront Resilience Program supports the goals of the Port's Strategic Plan as follows:

### Engagement

By leading an inclusive stakeholder process to develop a shared vision, goals, and principles for the Embarcadero Seawall Program and Flood Study.

### Livability

By increasing the proportion of funds spent by the Port on contract services performed by LBE firms.

### Resiliency

By leading the City's efforts to address threats from earthquakes and flood risk through research and infrastructure improvements to the Embarcadero Seawall and adjoining buildings and other infrastructure.

### Sustainability

By enhancing the quality of the Bay water and habitat with the improvements, by limiting construction impacts and waste, and by sustainable design and construction best management practices.

### Financial Stability

By supporting the Flood Study which has the potential to generate significant federal funding.

## **A. RESILIENCE PROGRAM UPDATE**

Consistent with direction from the Port Commission to expand the Port's resilience efforts Port wide and the expanded scope and scale of the Flood Study, Director Forbes formed the Port's Waterfront Resilience Program in the Port's Executive Division in February 2019 and appointed Brad Benson as Waterfront Resilience Director to lead the Program. The Program includes the Embarcadero Seawall Program, the Flood Study and related resilience planning and implementation efforts. Port staff last updated the Port Commission on February 12, 2019. This section of the report provides a brief update about Program activities since February 2019.

## **Communications and Engagement**

Port communications and community engagement efforts are described in Table 1 below. Unique, fun, and innovative outreach will continue in 2019 and beyond.

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**Table 1: Communications and Engagement**

<i>Awards</i>	The Port of San Francisco received an Award of Excellence in the American Association of Port Authorities 2019 Communications Awards Program for Embarcadero Seawall Program communications.
<i>Media Engagement</i>	There have been over 100 stories to date that include the Embarcadero Seawall.
<i>Past Community Meetings</i>	Port staff hosted three community meetings located along the Port jurisdiction including Mission Creek and Islais Creek. The community meetings will continue on a quarterly basis in three geographies- Islais Creek, Mission Creek, Embarcadero – and seek input from the community and stakeholders at every phase of the Embarcadero Seawall Program and Flood Study.

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**Table 1: Communications and Engagement**

	Input from stakeholders has been included on the website at <a href="http://www.sfportresilience.com">www.sfportresilience.com</a>
<i>Presentation Roadshows</i>	Port staff continued to provide roadshow presentations for neighborhood and community groups across the city, with an emphasis on the Southern Waterfront.
<i>Walking, Bike and Boat Tours</i>	Port staff hosted Seawall Walking Tours, a second annual waterfront bike ride in late June, and a public boat tour with WETA to talk about Port projects.
<i>Community Event Outreach</i>	The team participated in community events across the city, for a total of seven events in 2019 where the team engaged over 1,500 people. All events include multilingual outreach and printed material in English, Chinese, and Spanish.
<i>Online Engagement</i>	Port staff continued to share resilience-related social media on Facebook, Twitter, and Instagram for a total of approximately 500,000 online impressions for year 2019. The Program website ( <a href="http://sfseawall.com">sfseawall.com</a> ) hosts up-to-date Program information.
<i>Graphic Identity</i>	The team created a logo and graphic identity for the Waterfront Resilience Program.
<i>Innovative Outreach</i>	<p>A key focus of the Communications and Engagement Strategy is engaging a multi-generational cross-section of residents who are less likely to be engaged through traditional outreach and engagement channels. Strategies include social media, mapping apps, maker's partnerships, art installations, and collaboration with science museums. Work this past quarter included:</p> <ul style="list-style-type: none"><li>• <b>Earthquake and Flood Simulation Video:</b> Port staff debuted this video at the International Ocean Film Festival. The Festival also included Executive Director Elaine Forbes' opening remarks and panel remarks.</li><li>• <b>Women of the Waterfront Messenger Video:</b> The Port staff took highlights from the eight messenger videos to create one Women of the Waterfront: Embarcadero Seawall Program video. The video played at Women's World Cup soccer matches in Sue Bierman Park and Civic Center Plaza.</li><li>• <b>World Cup Viewing Parties:</b> The Port and the San Francisco Recreation and Parks Department partnered for four World Cup viewing parties, including three at Sue Bierman Park and the final at Civic Center. The Port tabled at the event and sought feedback from community members on Envisioning the waterfront.</li></ul>

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## **Embarcadero Seawall Program**

### *Multi-Hazard Risk Assessment*

The MHRA is the Port's major effort to characterize earthquake and flood risks associated with the Seawall and measure the economic, societal, and environmental consequences of those risks. Significant progress has been made this period and the MHRA report is scheduled for completion early 2020. Table 2 provides MHRA updates.

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**Table 2: Multi-Hazard Risk Assessment**

*Earthquake Risk Assessment*

- **Geotechnical Conditions:** Geotechnical work and subsequent repairs to sidewalk and roadway areas have been completed.
- **Liquefaction Analysis:** The team has nearly completed advanced liquefaction analysis for fill and subsurface sand deposits for selected earthquake return periods.
- **Seawall Slope Stability Assessment:** Using the results of the geotechnical investigation and the liquefaction analysis, the team is using computer models to predict areas of expected lateral spreading, which will also inform damage predictions for utility systems, the Embarcadero Roadway, and Port structures.
- **Seawall Bulkhead Wall and Wharf & Marine Structure Assessments:** The team is developing models to simulate the performance of typical Port pier and wharf structures under various earthquake scenarios.
- **Ferry Building Area Assessment:** Staff recommends a highly advanced earthquake assessment for the area around the Ferry Building. This area is significant for emergency response, high population exposure, historic significance, transportation connections and economic generation. The proposed contract amendment includes funding to complete this advanced analysis.

*Flood Risk Assessment*

- **Coastal Modeling:** USACE has determined its approach to flood risk modeling, Port staff has provided two additional sea level rise projections to complement the three sea level rise projections that USACE typically uses, and Port staff has provided building and asset inventories to assist with damage calculations.
- **Transportation Inventory & Damage Functions:** Coordination work continues with SFMTA, SFPW, BART, WETA, and GGBHD to determine the approach to calculating damage to transportation infrastructure (including the Embarcadero MUNI tunnel) from expected flooding.
- **Utility Inventory & Damages:** Coordination work continues with SFPUC to incorporate damage functions for the combined sewer system.

*Disaster Response and Recovery*

Port staff is coordinating with the Department of Emergency Management to implement a number of exercises to determine how emergency managers 1) would prioritize seismic safety improvements to the waterfront, and 2) would respond to expected damages in a large seismic event.

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**Strengthen, Adapt and Envision**

Port staff has developed a policy framework to explain the phased nature of resilience work that will be required to make the Port of San Francisco's Bay waterfront resilient to seismic and flood hazards over time. The framework has three elements: **Strengthen, Adapt and Envision.**

**Strengthen** projects, or Phase 1, will focus initial investments on the waterfront to increase life safety and enhance emergency response along the Embarcadero Seawall. The Port has identified a \$500 million initial funding plan for this work, largely consisting

of the voter-approved Proposition A \$425 million general obligation bond. Strengthen projects will have design criteria that reflect a defined level of seismic and flood performance.

The **Adapt Plan** will be updated every five years and is tied to capital planning and funding and financing strategies to reduce seismic and flood risk along the Port's entire 7½ mile jurisdiction. The Adapt Plan will be developed through engagement with the public, City agencies, and regional stakeholders to identify and prioritize actions for addressing seismic risk and increasing flood risk through mid-century for the Port's entire jurisdiction. As envisioned by staff, the Adapt Plan update will:

- Inform the Strengthen projects recommended for Phase 1;
- Align closely with the Flood Study;
- Include recommendations for current and future projects, policies, research, partnerships and other actions that will be necessary for reducing current and future risks along the Port's jurisdiction;

The **Envision Element** will engage the public, City agencies, regional stakeholders, other interested parties and policymakers including the Commission in an effort to envision a range of futures for the Port's entire 7½ mile jurisdiction that:

- Celebrate the intersection of the City and the Bay;
- Are resilient to seismic and flood risks through 2100 and beyond; and
- Result in a Port, City and Bay that are ecologically and economically sustainable, advance equity and provide high-quality community and regional services.

## **USACE/Port Flood Study**

### a. Background

The U.S. Army Corps of Engineers (USACE) is the federal agency with primary responsibility for studying flood risks and building flood management projects in conjunction with local communities. In June 2018, the Port of San Francisco was awarded a "New Start" which granted USACE authorization to start a general investigation of flood risks along the San Francisco waterfront. If this study finds a federal interest in providing flood protection along the San Francisco waterfront, the federal government would pay for approximately two-thirds of the cost of construction, and the Port would pay for approximately one-third of the cost. Future federal funding must be authorized and appropriated by Congress: total project benefits (in the form of avoided flood damages) must exceed the design and construction costs of a federally-funded flood control project. During the study period, costs are split 50/50 percent. "New Starts" are highly sought-after and this study is a great opportunity for the Port of San Francisco to bring Federal resources and expertise to address waterfront flooding.

USACE staff provided the Port Commission with an overview of the Flood Study, including the first milestone (the "Alternatives Milestone") on February 12, 2019. As

demonstrated by the February 12, 2019 Alternatives Milestone presentation to the Port Commission, flood management on the waterfront is a complicated undertaking.

The Port's waterfront includes two National Register Historic Districts, including historic finger piers which greatly complicate flood management strategies and approaches; seismic risk exposure which complicates and increases the cost of building flood protection; two creeks – Mission Creek and Islais Creek – with distinct geographies, surrounding uses, and flood control implications; and, most importantly, an active, maritime port that requires continual access to existing maritime facilities. The Flood Study also includes the S.F. Maritime National Historical Park and Aquatic Park.

Shortly after the Alternatives Milestone, the USACE and Port project delivery team realized that the study could not be completed under typical USACE rules which require a 3 year flood study costing \$3 million, subject to 3 levels of USACE review (San Francisco District, Southeast Pacific Division, & Washington, D.C. Headquarters). These USACE rules are called 3x3x3.

The USACE and Port project delivery team determined that the study and budget would need significant adjustments to succeed. USACE guidelines permit waivers of the 3x3x3 rules, including increases to study budgets – subject to continued 50-50% cost sharing between the federal government and the non-federal (local) sponsor. Waivers must be granted by the Assistant Secretary of the Army. The projected study cost – subject to Port Commission approval in September 2019 – is described in subsection (c) below.

The San Francisco District of USACE has submitted its 3x3x3 waiver request to the Southeast Pacific Division (SPD). SPD will submit the 3x3x3 waiver request to USACE Headquarters in Washington, DC on August 16, 2019. Port staff expects a decision as to whether USACE will approve this vital waiver request this fall.

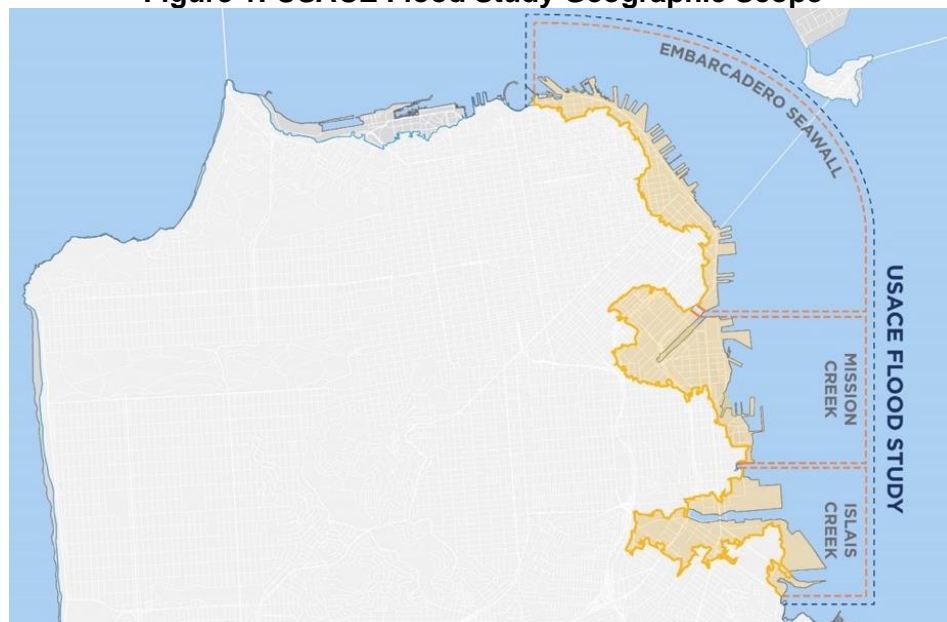
#### b. USACE Flood Study Process

The USACE planning process, as detailed in the Planning Guidance Notebook (ER 1105-2-100) and related Engineer Regulations, includes the following process: identify problems and opportunities; inventory and forecast conditions; formulate alternatives; evaluate alternatives; compare alternatives; and select a recommended plan. The formulation and evaluation process winnows down the alternatives under consideration and further details those alternatives as more information is developed during the study.

The scope of the Flood Study includes the Port's entire 7½ miles of waterfront property. Parts of the study area are subject to temporary flooding during King Tides and is currently at risk of significant flooding during 100-year storm events. Lower lying sections of the waterfront are especially vulnerable, and several of these sections are in close proximity to critical City uses, including dense residential and commercial activity, and major regional transportation corridors and essential public utilities. Flood risk along the waterfront is expected to increase significantly over time as sea level rises. As shown in Figure 1, the Flood Study includes the following flood-prone areas of the Port:

- The entire extent of the Embarcadero Seawall, including the zone south of the Ferry Building to Pier 14 where frequent and visible flooding impacts pedestrian and vehicular traffic. Increased flooding in this area will increasingly threaten the Embarcadero BART/Muni complex as sea level rises in the future;
- Mission Creek, including the surrounding South Beach and Mission Bay neighborhoods, where flood hazard mapping indicates significant flood risk to critical public and private assets and services. The flood risks in this area are complicated by the combined flood risk (Bay storm surge and stormwater overflows) in Mission Creek and along the Mission Bay shoreline; and
- Islais Creek, including low-lying industrial areas and flood-prone portions of the Piers 80-96 maritime industrial complex and a channelized creek which increases the combined fluvial<sup>1</sup> and coastal flood risks.

**Figure 1: USACE Flood Study Geographic Scope**



c. Flood Study Costs

The USACE and Port project delivery team has been analyzing and scoping the Flood Study since February and has determined that study costs for this complicated urban waterfront will need to increase significantly for a successful study outcome.

Tables 3 and 4 below show the current working estimates for the expanded study cost for 1) USACE, and 2) the non-federal sponsor (Port). These cost estimates are undergoing continuous review by the USACE and Port project delivery team and are

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<sup>1</sup> Fluvial flooding occurs when excessive rainfall causes a river to exceed its capacity.

subject to change based on continuing negotiations and direction from USACE Headquarters and the Port Commission.

<b>Table 3: Current Working Estimate by Discipline for Project - USACE</b>	<b>Federal Total</b>
Programs & Project Management	\$2,280,800
Hydraulics / Coastal Engineering	\$883,900
Geotechnical	\$996,200
GIS / CAD	\$109,600
Real Estate	\$206,800
Civil Design	\$1,649,100
Urban Architecture	\$-
Cost Engineering	\$253,800
Environmental	\$1,117,100
Cultural Resources	\$596,400
Plan Formulation	\$1,339,400
Economics	\$762,200
Stakeholder Engagement	\$204,800
Targeted ATR	\$150,000
IEPR (USACE 3 <sup>rd</sup> party cost review – not counted toward 50/50% cost share)	\$200,000
NFS Cash Received	\$(500,000)
<b>Total</b>	<b>\$10,250,000</b>

<b>Table 4: Current Working Estimate by Discipline for Project - Port</b>	<b>Non-Federal Total</b>
Programs & Project Management	\$-
Hydraulics	\$310,000
Geotechnical	\$300,000
GIS / CADD	\$76,500
Real Estate	\$22,400
Civil Design	\$1,395,000
Urban Architecture	\$480,000
Cost Engineering	\$300,000
Environmental	\$3,786,100
Cultural Resources	\$200,000
Plan Formulation	\$650,000
Economics	\$730,000
Stakeholder Engagement	\$1,300,000
Cash Contribution	\$500,000
<b>Total</b>	<b>\$10,050,000</b>

The Project Delivery Team is proposing a \$20.3 million Flood Study cost with a five-year study length. The result of this budget increase – if approved by USACE and the Port Commission – will be an increase in federal funding for the Flood Study from \$1.5 million to \$9.75 million. The proposed PEC contract amendment described below will



provide the consultant support to deliver the Port's Non-Federal Sponsor 50% share of in-kind work, estimated at \$9.75 million.

## **B. PROPOSED PEC CONTRACT AMENDMENT**

In 2017 the Port completed an RFP process that resulted in the selection of CH2M HILL Engineers, Inc (CH2M), an employee-owned global leader in full-service consulting, design, design-build, operations and program management for public and private clients. Since the contract award, CH2M has been underway with Program Management and Phase 1 Planning for the Embarcadero Seawall Program.

Port staff has reviewed the original Request for Proposals (RFP) and has determined that the proposed increased scope of services described in this Part B is consistent with the RFP. From page 3 of the RFP:

Services may also include preparation of feasibility studies for USACE CAP and GI projects and preparation of construction documents for pilot and emergency projects.

From page 6 of the RFP:

The Program must incorporate long-term planning to inform the City and Port about flood protection measures and adaptable designs that can be implemented as part of prioritized near-term and mid-term Seawall improvements, while the Port and City continue to define long-term visioning for the waterfront.

Also, from page 6 of the RFP:

The Port may ask that a USACE Feasibility Study be part of this work.

Staff recommends the following changes of scope to the PEC Contract to support the Flood Study and Embarcadero Seawall Program activities:

**Flood Study In-Kind Services** – As described above, based on ongoing discussions with USACE, staff believes that the shared cost of the Flood Study is approximately \$20.3 million. The Port's non-federal cost share responsibilities, totaling \$9.55 million (excluding the \$500,000 Port cash contribution already delivered to USACE in September 2013), will be delivered through the amended scope of work for the PEC Contract, including the following work areas:

- Civil design
- Urban design
- Economics
- Public outreach
- CEQA
- Economics
- Plan Formulation

**Adapt + Envision** – Staff proposes added funding to support development of the Adapt Plan and the Envision Element for the Port’s 7½ mile jurisdiction. This work includes the development of an adaptation plan that will lay out critical components of the Port’s mid and long range planning for the waterfront in a way that supports current and near term actions such as the first Phase 1 Strengthen projects to improve life-safety and emergency response and the development of a recommended alternative for the USACE Flood Study project. The Adapt Plan will lay out the building blocks that the Port, its partners and stakeholders can use to prioritize initial projects and advance subsequent actions and projects over the coming decades.

The additional resources will also support the Envision Element, which is designed to identify visions of the waterfront that would be resilient to 2120 and beyond. The Envision Element will provide the Port, City departments, resource and regulatory agencies, the public and other stakeholders with an opportunity to envision different, feasible alternative shoreline configurations that would be resilient to 2120 and beyond.

**Multi-Hazard Risk Assessment** – Port staff and PEC have determined that the level of effort required to estimate damages for City-owned infrastructure, including utilities and transit infrastructure, exceeded initial estimates. This scope also supports additional seismic analysis for a 100-year earthquake.

**Advanced Earthquake Analysis, Ferry Building Area** – Staff recommends the addition of funding for advanced seismic analysis in the Ferry Building area. This area has deep fill and Young Bay Mud and will benefit from advanced 3D seismic analysis to better inform the hazard and to better understand behavior of alternatives to the structures, the BART tunnel, the plaza, and the Embarcadero. Complex analysis will be needed to secure approvals for any type of retrofits in this area.

**Stakeholder Engagement** – Staff has developed a communications and engagement scope of work outlining efforts to be performed from July 2019 through July 2022 for Waterfront Resilience Program efforts including the Embarcadero Seawall Program, USACE/Port Flood Study, and other efforts located on Port property including the Islais Creek Mobility Adaptation Study. The engagement will take place in three geographic areas along the Port of San Francisco jurisdiction — the Embarcadero, Mission Creek, and Islais Creek areas. The work scope will help the Port team achieve the following:

1. Create opportunities for broad and accessible public communication and engagement, including input to inform decisions about the Program;
2. Identify and engage key stakeholders;
3. Create community support for immediate projects and understanding of long-term waterfront planning effort; and
4. Establish the Port as resilience leader.

**LBE Support Services** – Given the unique nature of the Embarcadero Seawall Program and the Flood Study and the specialization of the work in both the planning and construction, staff recognizes that creative methods will be needed to reach significant levels of LBE participation. To address this, the Port through its relationship with CH2M, is engaging the services of **Merriwether & Williams Insurance Services**

(MWIS), **The Allen Group (TAG)**, and **RDJ Enterprises, LLC (RDJ)** to help identify goals and create an implementation plan to increase LBE including minority and women owned firm participation in the Embarcadero Seawall Program. **D&A Communications (D&A)** will support communications for this effort.

During Phase 1 of this effort, MWIS and TAG will work collaboratively with the Port to first assess the state of LBE and DBE contracting with the Port over the last 3-5 years. Phase 2 of this scope will expand technical assistance and establish a resource hub at one of the City's existing facilities to promote future work, facilitate prime/subcontractor match-making and provide technical assistance to small businesses.

**Workforce Development** – Working with the Office of Economic and Workforce Development's Sector Academies and Community Based Organizations (CBO) providing pre-employment services, the CH2M team, including RDJ, will prepare and implement a workforce development strategy. This strategy will focus on educating, training and placing San Francisco and District 10 residents in careers from construction through end-use, by leveraging and expanding the current Sector Academies to include all 26 trades and professional service trades and create a pool of resident workers qualified to work on Port projects. D&A will support communications in this effort.

**Public Education** – Port staff is exploring a partnership through the PEC contract with a nonprofit public education partner and will report more on this effort at the September 2019 Port Commission meeting.

**Project Management** – Staff recommends additional funding for project management to support and administer a longer USACE Flood Study and Adapt + Envision planning effort than previously anticipated and to manage the additional level of effort described above. Core staff in the PMO include the PEC Project Manager, strategic advice, project scheduling, project coordination, and document management.

**Appendix A** includes line item detail regarding the proposed additions to the PEC Contract scope of services.

## **LOCAL BUSINESS ENTERPRISE (LBE) PARTICIPATION**

CH2M committed to a 21 percent LBE subcontracting participation goal that was incorporated in the contract requirements. The LBE target for Phase 1 LBE participation was originally 19%, increasing in Phases 2 and 3 to meet the 21% commitment. The lower Phase 1 projected LBE participation of 17% (through May 2019) was primarily driven by additional geotechnical field exploration and the bathymetry where there is very limited availability for LBE's with the equipment and technical expertise required to complete this work.

CH2M is actively looking at opportunities to increase LBE participation for Alternatives Analysis and Adapt and Envision by both increasing the current subconsultant LBE's participation and seeking approval to add qualified LBE's in the areas of urban master planning, workforce development and stakeholder engagement. Based upon the

currently authorized work for Phase 1 and utilizing the budgeted LBE participation levels for Phase 2 and 3, the forecasted LBE participation levels of 21% is still achievable.

<b>Firm</b>	<b>Portion of Work</b>	<b>% of Contract Work</b>	<b>LBE Type</b>
<b>AGS Inc</b>	Environmental Advisory Services; Geotechnical Engineering	0.62%	MBE
<b>BAYCAT</b>	Arts and Technology	0.12%	OBE
<b>CHS Consulting Group</b>	Transportation & Traffic Engineering	0.13%	MBE
<b>Civic Edge Consulting</b>	Community Planning and Stakeholder Engagement/Public Affairs; Public Relations Services	0.26%	WBE
<b>Geotechnical Consultants Inc</b>	Geotechnical Engineering	3.00%	MBE
<b>Hollins Consulting Inc</b>	Construction Management; Administrative Services	3.61%	MBE
<b>RDJ Enterprises LLC</b>	Community Relations/Public Affairs; EEO/Affirmative Action/M/WBE Assistance; Educational and Training Services	0.63%	MBE
<b>Saylor Consulting Group</b>	Value/Quality Engineering	1.43%	WBE
<b>Sedway Consulting Inc</b>	Real Estate: Appraisers, Brokers, Agents	0.33%	WBE
<b>Square One Productions</b>	Architectural Illustrator	0.33%	MBE
<b>Structus Inc</b>	Structural Engineering; Marine Architecture and Engineering	2.60%	MBE
<b>Telamon Engineering</b>	Civil Engineering; Surveying (Land & Aerial); Utilities & Power Services; CAD	8.00%	WBE
<b>Total</b>		<b>21.00%</b>	

The proposed amendment will increase the contract not to exceed amount by 50% of the original contract amount. The proposed amendment would also add several new LBE subcontractors, including Bonner Communications, D&A Communications, Merriwether & Williams Insurance Services, and SITELAB Urban Studio. With projected LBE participation of 30.11% for the proposed additional scope, overall LBE participation for the contract is projected at 22.79%. Staff will continue to consult with the Contract Monitoring Division regarding LBE participation during the month of August 2019.

## **FUNDING**

Funding for this contract is supported by the Resilience Program budget. As detailed in **Table 6**, through FY 2018-19 the Port and City have appropriated \$20.0 million in funding to support the Embarcadero Seawall Program. Sources of these funds include the City's Revolving Fund (\$9.0 million), Port Capital (\$4.0 million), contributions from the SFMTA and Planning Department (\$2.0 million), and a grant from the California Natural Resources Agency (\$5.0 million).

On March 12, 2019, the Port Commission approved Resolution 19-08, authorizing the first issuance of the Seawall Bond for up to \$50.0 million, including issuance costs, to support the planning and preliminary design phases of the Seawall Program. The first GO Bond issuance is scheduled to reimburse \$6.0 million to the City's Revolving Fund and \$3.0 million in Port/ Planning Department/ SFMTA Seawall Program expenditures to allow the Port to reallocate those funds to other non-bond eligible Embarcadero Seawall Program costs. The Port will reimburse the remaining \$3.0 million to the City's Revolving Fund after the second GO Bond sale.

On April 5, 2019, two pro se plaintiffs, Michael Denny and Nicholas Smith, filed an action against John Arntz, Director of Elections, and Dennis Herrera, City Attorney, alleging that San Francisco officials violated various state and local election laws in connection with the voter approval in of the Seawall Bond. On June 19, 2019, the San Francisco Superior Court granted the City's demurrer to the complaint and dismissed all of Plaintiffs' claims and entered judgment for the City. The plaintiffs have filed an appeal, and while the City Attorney advises that the lawsuit is without merit, the City has opted to delay the bond issue until the Controller's Office of Public Finance, Port staff and the City Attorney have analyzed the appeal.

Rather than have the program stall, on July 9, 2019 Port staff received approval from the Port Commission (Resolution 19-29) to authorize a supplemental appropriation request of \$11.5 million to support the Resilience Program. The request was approved by the Capital Planning Committee on July 22, 2019 and will go before the Board of Supervisors for approval in September 2019.

**Table 6: Current Program Funding Plan (\$ millions)**

	Fiscal Year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23-27
<b>Funding Sources</b>									
Port Capital		\$2.9		\$1.1					\$10.0
Port Harbor Funds					\$11.5	(\$11.5)			
City Revolving Fund		\$1.0	\$3.0	\$5.0		(\$6.0)	(\$3.0)		
SFMTA Contribution		\$0.5	\$0.5						
Planning Dept Contribution		\$0.5	\$0.25	\$0.25					
State Sources				\$5.0					
2018 General Obligation Bond						\$50.0	\$250.0		\$125.0
Other Funds*									\$54.0
<b>Total Planned Sources</b>		<b>\$4.9</b>	<b>\$3.8</b>	<b>\$11.4</b>	<b>\$11.5</b>	<b>\$32.5</b>	<b>\$247.0</b>	<b>\$0.0</b>	<b>\$189.0</b>
<b>Cumulative Sources</b>		<b>\$4.9</b>	<b>\$8.7</b>	<b>\$20.0</b>	<b>\$31.5</b>	<b>\$64.0</b>	<b>\$311.0</b>	<b>\$311.0</b>	<b>\$500.0</b>
Current Funding									
First Bond Sale Pending Litigation									

\*Pending

## **RECOMMENDATION**

Staff will continue to work with the USACE Project Delivery Team and with CH2M to finalize the proposed contract amendment. Staff currently projects that the contract would be increased by \$19,992,357, or 50%, with 30.11% of the amended scope projected for LBE subconsultants for a total contract not to exceed amount of \$59,977,071. Staff looks forward to direction and feedback from the Port Commission.

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For: Katharine Petrucione, Deputy Director Finance & Administration  
Brad Benson, Waterfront Resilience Program Director

**Appendix A:** Current Estimates for PEC Contract Amendment

## Appendix A: Current Estimates for PEC Contract Amendment

Task	New Scope Item	Jacobs	Subs	LBE	Total	LBE %	Notes
1.01	Project Management Office (PMO) – Phase 1 through June 2022	\$2,025,667	\$159,813	\$442,776	\$2,988,255	17%	Phase 1 Schedule extended for Geotechnical Work, USACE planning and coordination, and Strengthen, Adapt and Envision
1.01.05	Waterfront Resilience Program Chartering, attendance and follow-up actions	\$22,185	\$68,460	\$14,752	\$105,397	14%	Team chartering in Fall 2019
1.02	1.02 Stakeholder Engagement	\$69,003	\$326,158	\$1,384,191	\$1,779,352	78%	
2.02	2.02 Stakeholder Engagement	\$(151,527)	\$(397,909)	\$(150,977)	\$(700,413)	-22%	Consolidate Phase 2 Stakeholder Engagement with Phase 1
1.02	Nonprofit Public Education Exhibit	\$25,000	\$500,000	\$-	\$525,000	0%	Public education effort with nonprofit educational partner, more detail in September 2019
1.03.03	Existing Conditions Report	\$25,939	\$200,702	\$-	\$226,641	0%	
1.03.03	Aerial Survey Support	\$14,325	\$-	\$-	\$14,325	0%	
1.04.02	Analysis 100-year ground motion	\$21,783	\$125,695	\$13,212	\$160,690	8%	New return period for MHRA analysis
1.04.01	Advanced 3-D Analysis Ferry Building	\$142,900	\$858,000	\$-	\$1,000,900	0%	Study soil structure interaction
1.04.01	Seismic Analysis and SPRP Inputs and Meetings	\$6,060	\$81,645	\$-	\$87,705	0%	Additional Analysis and SPRP Inputs and preparation
1.04.02	Part C Overtopping Analysis	\$642	\$12,837	\$-	\$13,479	0%	
	MHRA Additional Data Req'mts	\$1,986	\$14,948	\$4,992	\$21,926		New Task for Data MHRA Seismic Hazard Data Inventory
1.05.11	Adapt and Envision	\$344,526	\$1,673,695	\$1,165,162	\$3,183,383	37%	\$181,172 remaining in 1.05 is additive
1.05.00	Strengthen	\$281,021	\$625,862	\$40,802	\$947,685	0%	Analyze seismic measures along Embarcadero Seawall
1.07.04	Seismic Peer Review Panel for 1.05 and Phase 2	\$69,300	\$263,500	\$122,500	\$455,300	27%	SPRP review during Alternatives Analysis
1.09.03	Part B - Advisory Services	\$71,276	\$205,564	\$10,080	\$286,921	4%	USACE Advisory Services (Authorized in May)
1.09.03	Part C - Advisory Services	\$88,780	\$200,000	\$75,600	\$364,380	21%	USACE Advisory Services
1.09	<b>USACE In-kind Services</b>						
1.09.07	NEPA/CEQA	\$365,000	\$1,017,189	\$195,312	\$1,577,501	12%	Represents shortfall (\$3,850,000 minus residual budget in PEC Contract )
1.09.05	Civil	\$898,713	\$381,340	\$20,000	\$1,300,053	2%	Seawall Section Only
1.09.05	Urban		\$238,794	\$240,750	\$479,544	50%	
1.09.05	Cost Estimating	\$277,500	\$-	\$-	\$277,500	0%	
1.09.06	Flood Modeling Support G2CRM	\$13,000	\$260,000	\$-	\$273,000	0%	

**Appendix A: Current Estimates for PEC Contract Amendment**

<b>1.09.07</b>	Seismic NED Consideration	\$53,250	\$210,000	\$55,000	\$318,250	0%	In-kind to support seismic benefits analysis for Flood Study
<b>1.09.08</b>	USACE Stakeholder Engagement	\$68,027	\$420,811	\$1,308,502	\$1,797,340	73%	
<b>1.09.10</b>	Economics	\$19,544	\$390,880	\$-	\$410,424	0%	
<b>1.09.11</b>	USACE GIS Support Services	\$3,050	\$-	\$61,000	\$64,050	95%	
<b>1.04</b>	<b>MHRA Change Orders</b>						
	1.04.03 Utilities	\$36,076	\$114,813	\$106,709	\$257,598	41%	
	1.04.04 Transportation	\$106,985	\$82,564	\$23,695	\$213,243	11%	
	1.04.07 Disaster Response	\$54,278	\$-	\$2,283	\$56,562	4%	
	1.04.10 Building Data Inventory	\$2,725	\$54,493	\$27,230	\$84,448	32%	
	<b>MHRA Subtotal</b>				\$611,851		
<b>1.10.01</b>	LBE Support and Workforce Development	\$58,500	\$470,000	\$700,000	\$1,228,500	57%	
	Other MHRA Scope Reductions						Reduction for Land Use still under Consideration
	<b>Amendment Total</b>	<b>\$5,019,514</b>	<b>\$8,594,777</b>	<b>\$5,864,820</b>	<b>\$19,479,111</b>	<b>30.11%</b>	
	Currently Authorized Phase 1	\$3,696,213	\$8,353,199	\$1,861,951	\$13,911,363	22%	
	Currently Authorized Phase 2	\$94,030	\$25,428	\$-	\$119,458	0%	
	Remaining To be Authorized Phase 1	\$417,957	\$284,402	\$278,813	\$981,172	28%	
	Remaining To be Authorized Phase 2	\$4,397,068	\$8,496,087	\$4,414,990	\$17,308,145	26%	
	Remaining To be Authorized Phase 3	\$1,221,043	\$4,509,399	\$1,874,721	\$7,605,163	25%	
	Credit for Emergency Projects	\$(1,236,313)	\$(1,372,500)	\$(1,761,101)	\$(4,396,914)	-40%	
	Projected Contingency				\$4,969,574		
	<b>Total Projected Contract Amount</b>	<b>\$13,582,512</b>	<b>\$28,890,792</b>	<b>\$12,534,193</b>	<b>\$59,977,701</b>	<b>22.79%</b>	

\*These amounts are estimates. Final negotiated amounts will be provided at the next Commission meeting.