



## MEMORANDUM

October 8, 2021

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

**FROM:** Elaine Forbes  
Executive Director 

**SUBJECT:** Resolution authorizing the Executive Director to enter into a new Feasibility Cost Sharing Agreement (FCSA) with the United States Army Corps of Engineers (USACE) for the San Francisco Waterfront Coastal Flood Study (Study)

**DIRECTOR'S RECOMMENDATION:** Approve the Attached Resolution No. 21-43

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### **EXECUTIVE SUMMARY**

Port staff is working with the United States Army Corps of Engineers (USACE) to conduct the San Francisco Waterfront Coastal Flood Study (Flood Study or Study). The original Feasibility Cost Sharing Agreement (FCSA1) between USACE and the Port which provides for the 50-50% sharing of Study costs expired on September 9, 2021.

Port staff recommend entering a new Agreement consistent with the waiver recommended by USACE Headquarters on September 7, 2021 to the Assistant Secretary of the Army for Civil Works (ASA-CW) increasing the Study budget by \$10 million (above the \$6 million already spent under FCSA1) to a total Study budget of \$16 million with a Chief's Report to Congress by November 2025. See Exhibit 1 for a copy of the memorandum from Major General William H. Graham, Jr., Deputy Commanding General for Civil and Emergency Operations recommending the waiver to the ASA-CW.

In July 2021, USACE Headquarters transferred the Study from the San Francisco District of the South Pacific Division (SPD) to the Southwestern Division (SWD) due to the Southwestern Division's experience with large, complex coastal flood risk management projects. The Study will remain a strategic collaboration between SWD and SPD.

The attached resolution, if approved by the Port Commission, would authorize the Executive Director to enter a new Feasibility Cost Sharing Agreement (FCSA2) with a total Study cost of up to \$16 million (including the \$6 million already spent under FCSA1) and extend the Study duration up to an additional 50 months beyond the original 3-year term.

## **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.

## **BACKGROUND**

On June 7, 2018, USACE awarded San Francisco a "new start" study appropriation to commence a General Investigation (GI) feasibility study, which would consider and recommend potential project alternatives that would reduce coastal flood risk along the San Francisco waterfront (the San Francisco Waterfront Coastal Flood Study, or Flood Study). Following the completion of the Flood Study, if USACE recommends and Congress approves a project for implementation, the federal government would pay for approximately two-thirds of the cost of design and construction, and the Port would pay for approximately one-third of the cost.

USACE General Investigations follow a standardized “3x3x3” framework: \$3 million budget, 3-year schedule, 3 levels of USACE review (District, Division, Headquarters).

On August 14, 2018, the Port Commission authorized the Executive Director to enter into a 3 year, \$3 million FCSA1 with the United States Army Corps of Engineers for study of coastal flood resilience on the San Francisco waterfront under the USACE General Investigation program<sup>1</sup>. That agreement was executed on September 9, 2018. In early 2019, the Project Delivery Team (PDT) consisting of Port staff and representatives of the San Francisco District collaborated closely to develop a recommendation for a \$20.3 million Flood Study, reflecting the complexity of the problems along San Francisco’s unique Bay shoreline.

On May 26, 2020, the Port Commission authorized the Executive Director to amend the FCSA1 to reflect USACE’s request for waiver of the 3-year, \$3 million restriction on General Investigations to increase the Study budget to \$6 million, and subject to approval by the Board of Supervisors and the Assistant Secretary of the Army, to \$20.3 million with an extended Study period<sup>2</sup>. The amended FCSA1, with a \$6 million Study budget, was executed on March 2, 2021.

The USACE San Francisco District subsequently submitted a waiver request with a \$20.3 million and 7 year schedule to USACE Headquarters. The request was not approved due to Headquarters concerns regarding scope and budget.

In March 2021, Major General William H. Graham, Jr., Deputy Commanding General for Civil and Emergency Operations visited the Port of San Francisco and met with President Kimberly Brandon, Port Director Forbes and Port staff and subsequently toured the waterfront.

In July 2021, USACE Headquarters informed the Port that USACE had assigned the Study to the Southwestern Division (SWD) of USACE. The SWD team worked closely with Port staff to rescope the Study and developed a new recommendation for an additional \$10 million Study led by SWD (on top of the \$6 million already expended under FCSA1) to be completed within 50 months (on top of the 3 years already dedicated under FCSA1).

In July 2021, Lieutenant General Scott Spellmon, 55<sup>th</sup> Chief of Engineers and Commanding General of the United States Army Corps of Engineers, visited the Port of San Francisco and met with President Kimberly Brandon, Port Director Forbes and Port staff and subsequently toured the waterfront. The visits by Major General Graham and Lt. General Spellmon reinforced the importance the Study to USACE and the nation.

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<sup>1</sup> The August 14, 2018 Port Commission staff report can be found at: <https://sfport.com/file/33969>

<sup>2</sup> The May 12, 2020 Port Commission staff report can be found at: <https://sfport.com/meeting/san-francisco-port-commission-may-12-2020-supporting-documents>

The May 26, 2020 Port Commission staff report can be found at: <https://sfport.com/meeting/san-francisco-port-commission-may-26-2020-supporting-documents>

On September 7, 2021, USACE Headquarters approved recommending to the ASA-CW the waiver request for an additional \$10 million (50% federally funded) and an additional 50 months to complete the Study. The ASA-CW may require submittal of multiple waiver requests to approve the \$10 million, 50-month Study. Resolution 21-XX Authorizes the Port, subject to Board of Supervisors approval, to enter into FCSA2 and subsequent amendments, if necessary, to achieve the full \$10 million, 50-month Study.

As of the date of this report, the waiver request has not yet received final approval from the Assistant Secretary of the Army for Civil Works (ASA-CW), though USACE Study staff anticipate the waiver will be approved in the next 2-4 weeks. Port staff recommends approval at this time so that work can proceed expeditiously once Board of Supervisors and ASA-CW approvals are received.

## **PORT EXPENDITURES TO DATE**

Table 1 below shows Port and USACE expenditures to support the Study as of April 2021.

**Table 1: Port and USACE Expenditures**

<b>Discipline</b>	<b>Port Expenditures</b>	<b>USACE Expenditures</b>	<b>Subtotal</b>
Plan Formulation	\$36,113	\$774,000	\$810,113
Hydraulics/ Coastal Engineering	\$253,968	\$525,000	\$778,968
Economics	\$474,839	\$184,000	\$658,839
Environmental Planning	\$360,952	\$650,000	\$1,010,952
Stakeholder and Public Engagement	\$39,727		\$39,727
Cultural Resources	\$3,136		\$3,136
Geo Sciences	\$682	\$199,000	\$199,682
Geospatial Information System (GIS)	\$3,149	\$52,000	\$55,149
Civil Design	\$374,428	\$272,000	\$646,428
Urban Design	\$46,358		\$46,358
Cost Engineering	\$131,878	\$25,000	\$156,878
Real Estate		\$17,000	\$17,000
Program and Project Management		\$802,000	\$802,000
<b>Subtotal Direct Expenditures</b>	<b>\$1,725,230</b>	<b>\$3,500,000</b>	<b>\$5,225,230</b>
Port Cash Contribution #1	\$500,000		
Port Cash Contribution #1	\$200,000		
Port Cash Contribution #1	\$290,000		
<b>Total Expenditures</b>	<b>\$2,715,230</b>	<b>\$3,500,000</b>	

The Port and USACE will reconcile expenditures and cash contributions to close out the first \$6 million in the first phase of the Study. The Port's in-kind contributions in Table 1 above and detailed expenditures shown in Exhibit B are based on Port submittals to USACE through April 2021. The Port will have a final work-in-kind submittal covering work from April to July, based on consultant billing to support the Study. If that submittal is not sufficient to achieve a full \$3 million contribution to the Study, the Port will make a final cash payment to stay in 50-50% Study contribution parity, as required under FCSA1.

## **NEW FCSA2**

The proposed FCSA2 between USACE and the Port includes the following key elements:

- An increase in budget of \$10 million, above the \$6 million already expended (50% Port funds, 50% federal funds); the Port would be obligated to 50% of the budget increase, or \$5 million.
- An extension of the Study duration by 50 months, extending the initial 3-year study to a total duration of 7 years and 2 months.
- The form of the FCSA is a standardized USACE model agreement, utilized nationwide.
- An Accelerated Funds Provision, as further described below.

The Port has funds allocated in its Seawall Resiliency Project, 12672 - Seawall & Marginal Wharf Repair to provide the required cost matching contribution, where the Port will determine the mix of cash and credit for in-kind services required of the Port under the FCSA2.

## **MULTI-HAZARD, MULTI-AGENCY APPROACH**

The Course of Action selected by USACE Headquarters and forwarded to the ASA-CW for approval represents a new approach by USACE. USACE is proposing a multi-hazard approach to the Study to examine multiple hazards along the complex Port waterfront, including earthquakes, coastal storms, tidal flooding and sea level rise. USACE has a goal of identifying other federal agencies for potential partnerships to address these hazards.

Other agencies that could potentially play a role in funding a proposed program include, but are not limited to, the Federal Emergency Management Agency (FEMA), the National Oceanic and Atmospheric Administration, the U.S. Department of Housing and Urban Development (HUD), and the U.S. Department of Transportation. Port and USACE staff continue to research strategies for implementing the multi-hazard, multi-agency approach to the Study.

## **ACCELERATED FUNDS**

Under Resolution 20-24, the Port Commission authorized Port staff to add an *accelerated funds clause* to the recently expired FCSA1, subject to approval by the Board of Supervisors. Port staff recommend adding a similar clause to the new FCSA2. Inclusion of the Accelerated Funds provision will authorize the Port to advance funding to USACE to keep the Study moving forward in the absence of, or in case of delay of needed federal appropriation of funds to the Study. The Accelerated Funds provision reads as follows:

*In addition to providing the funds required by paragraph B. of this Article, the Non-Federal Sponsor may provide accelerated funds for immediate use of the Government. The Non-Federal Sponsor understands that use of accelerated funds shall not constitute any commitment by the Government to budget, or the Congress to appropriate, funds for this Study or to match any accelerated funds provided by the Non-Federal Sponsor; that any accelerated funds will be credited toward the Non-Federal Sponsor's cost share only to the extent matching Federal funds are provided; and that the Non-Federal Sponsor is not entitled to any repayment for any accelerated funds obligated by the Government even if the Study ultimately is not completed.*

If the Port Commission approves the addition of the accelerated funds clause, any future proposal to advance funding to USACE would be subject to approval from the Port Commission and the Board of Supervisors. Utilizing this clause would also require a matching reduction in local spending to support the Flood Study.

## **NEXT STEPS**

If Resolution 21-43 attached to this report is approved by the Port Commission, Port staff will seek Board of Supervisors approval of the proposed FCSA2, and subsequent amendments, if necessary, to achieve the full \$10 million, 50-month Study.

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Manager, Resilience Program

Kelley Capone, USACE Flood Study Project  
Manager

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Exhibit 1: Memorandum for the Assistant Secretary of the Army (Civil Works) San Francisco Waterfront Coastal Flood Study, California Request for a Section 1001 (3x3x3 Rule) Exception

Exhibit 2: Breakdown of Port of San Francisco Spending on the USACE Flood Study

**Exhibit 1:**  
**Memorandum for the Assistant Secretary of the Army (Civil Works)**  
**San Francisco Waterfront Coastal Flood Study, California Request for a Section**  
**1001 (3x3x3 Rule) Exception**

## Exhibit 2: Breakdown of Port of San Francisco Spending on the USACE Flood Study

**Table 2: Work-In-Kind Contribution by Project Management Plan Section as of April 2021**

Project Management Plan Section		Deliverable	Work in Kind	Subtotal
9.2	Plan Formulation	Initial Array/Alternatives Meeting Milestone	\$7,733.35	\$36,112.50
		Focused Array	\$28,379.15	
9.3	Hydraulics/ Coastal Engineering	Wave Modeling/Wind Analysis	\$114,634.45	\$253,967.91
		Economic scope for PMP	\$6,767.35	
		G2CRM (USACE Flood Model) Training	\$11,851.86	
		Wind-Wave Final Technical Memo	\$32,366.05	
		Flood Risk Profiles	\$6,837.31	
		Agency Technical Review (ATR) deliverables	\$7,792.52	
		Coastal Storm Database, wind/wave	\$17,103.17	
		Respond to ATR comments and prepare ATR deliverables	\$11,227.20	
		Coastal Storm Database	\$45,388.00	
9.4	Economics	Asset Inventory/Depth Damage Functions	\$96,411.04	\$474,838.91
		G2CRM Training	\$4,276.38	
		Economic scope for Project Management Plan (PMP)	\$9,140.83	
		National Economic Development (NED) Inventory & Customized Assets	\$126,535.33	
		Additional NED Benefit White Paper	\$17,339.11	
		Regional Economic Development (RED)/Other Social Effects (OSE) Draft Technical Memo & Inventory	\$125,512.94	
		NED Support, RED/OSE Draft Analysis, respond to ATR comments, asset inventory, business interruption, residual risk analysis, revise Economic Appendix, annualization methodology, develop maritime economics, mobility scenario	\$59,440.15	
		NED Support, RED/OSE Draft Analysis, residual risk analysis, revise Economic Appendix, Placemat for VT	\$20,727.37	
		Economics Policy/ Tidal Flooding White Paper	\$15,455.76	
9.5	Environmental Planning	NEPA Planning/ Environmental scope for PMP	\$36,215.12	\$360,951.92
		NEPA Existing Conditions Sections (Historical Resources, Archaeology, Air Quality, Noise, Aesthetics, Environmental Justice, Recreation, Transportation, Utilities and Public Service, Water Quality, Utilities, Land Use, Hazardous Materials)	\$263,186.63	
		Early NEPA Scoping, Public	\$2,688.00	
		Early NEPA Scoping, Resource Agency Working Group	\$5,268.48	
		NEPA Existing Conditions Sections (Utilities & Public Service, Water Quality, Land Use, Hazardous Materials)	\$53,593.69	
9.6	Stakeholder and Public Engagement	Islais/Bayview Meeting #3	\$18,795.29	\$39,727.10
		Mission Bay Meeting #2	\$16,169.31	
		Early NEPA Scoping	\$4,762.50	
9.7	Cultural Resources	Meeting with State Historic Preservation Office on 12/7/20. Presentation materials and preparation	\$3,136.00	\$3,136.00
9.8	Geo Sciences	Seismic Cost and Benefits Implementation Guidance White Paper	\$681.74	\$681.74



**Table 2: Work-In-Kind Contribution by Project Management Plan Section as of April 2021**

Project Management Plan Section		Deliverable	Work in Kind	Subtotal
9.9	Geospacial Information System (GIS)	Seawall GIS data	\$3,149.40	\$3,149.40
9.10	Civil Design	Conceptual Measures/AMM	\$70,147.22	\$374,428.21
		Measure Fact Sheets & Working draft for Measures Unit Costs	\$261,708.01	
		Input for Measures Unit Cost	\$14,855.95	
		Shoreline Elevation Tool	\$27,717.03	
9.11	Urban Design	Urban Design/ Formulation approach scope for PMP	\$46,358.38	\$46,358.38
9.12	Cost Engineering	Focused Array Measure Costs	\$131,877.50	\$131,877.50
			<b>Work in Kind Total</b>	<b>\$1,725,229.57</b>
Cash Contribution #1				\$500,000.00
Cash Contribution #2				\$200,000.00
Cash Contribution #3				\$290,000.00
<b>Total NFS Contribution as of April 2021</b>				<b>\$2,715,229.57</b>

**PORT COMMISSION  
CITY AND COUNTY OF SAN FRANCISCO**

**RESOLUTION NO. 21-43**

- WHEREAS, The San Francisco Seawall was constructed more than a century ago and serves as the foundation for more than three miles of San Francisco waterfront, supporting historic piers, wharves, and buildings including the Ferry Building, and underpinning the Embarcadero Promenade which welcomes millions of people each year, serves as a critical emergency response and recovery area, and supports BART, Muni and ferry transportation and utility networks; and
- WHEREAS, The Port's Southern Waterfront includes Pier 48 and 50, areas surrounding Mission Creek, streets and parks in Mission Bay, the Union Iron Works Historic District at Pier 70, the Port's active maritime industrial piers, including Pier 80 and Piers 92-96, and land adjacent to Islais Creek, including 1399 Marin Street; and
- WHEREAS, Flood risk maps published by the Port, the City and the Federal Emergency Management Agency all indicate current and future flood risk along significant portions of Port property associated with King Tides, 100-Year and 500-Year Floods, and sea level rise; and
- WHEREAS, On June 7, 2018, the United States Army Corps of Engineers (USACE) awarded the City and County of San Francisco a "new start" study appropriation to commence a General Investigation (GI) feasibility study to examine the Federal interest of possible improvements to reduce flood risk along the San Francisco waterfront (the San Francisco Coastal Flood Study, or Flood Study), as elaborated in the staff memorandum accompanying resolution 18-46 passed by the Port Commission on August 14, 2018; and
- WHEREAS, Pursuant to Resolution 18-46, the Port Commission authorized the Executive Director to enter into a Feasibility Cost Sharing Agreement (FCSA1) with USACE for the Flood Study at a total cost of \$3 million over three years, under which the Port as Non-Federal sponsor committed to match federal funding for the Flood Study in equal proportion, resulting in a \$1.5 million Federal funding commitment and a \$1.5 million Non-Federal sponsor (Port) commitment; and
- WHEREAS, On May 26, 2020, pursuant to Resolution 20-24, the Port Commission authorized the Executive Director to enter into a first amendment to the FCSA1 with USACE, which increased the Flood Study funding from \$3 million to \$6 million and increased the Port's match to \$3 million in cash or in-kind contributions, as described in the staff report accompanying such resolution; and

WHEREAS, Pursuant to Resolution 20-24, subject to approval by the Board of Supervisors and the approval of a waiver by the Assistant Secretary of the Army, the Port Commission further authorized the Executive Director to enter a second amendment to the FCSA1 that would (1) allow the Port to elect to provide its cost match contribution earlier than federal appropriations to the Flood Study, (2) increase the upper limit of the Flood Resilience study to \$20.1 million, increasing the Port's 50% local match to \$10,050,000 in Port funds or in-kind contributions to the Flood Study, and (3) increase the term to five years, as described in the staff report accompanying such resolution; and

WHEREAS, The USACE San Francisco District subsequently prepared a waiver request with a \$20.3 million Study cost and 7-year schedule to USACE Headquarters which was not approved due to concerns regarding scope and budget; and

WHEREAS, In July 2020, USACE Headquarters informed the Port that USACE had reassigned the Study from the San Francisco District Office to the Southwestern Division (SWD) of USACE; and

WHEREAS, The SWD has worked closely with Port staff to develop a new recommendation to increase the Study budget by an additional \$10 million (50% federally funded, 50% local match) and to increase the schedule to complete the Study by an additional 50-months, with a Chief of Engineers Report to Congress by November 2025 and SWD submitted a new recommendation for a waiver to USACE Headquarters and the Assistant Secretary of the Army; and

WHEREAS, On September 7, 2021, USACE Headquarters approved a recommendation for submittal of a waiver to the Assistant Secretary of the Army-Civil Works requesting an increase to the Study budget by an additional \$10 million (50% federally funded, 50% local match) and an increase to the schedule by an additional 50 months, resulting in a total Study cost of \$16 million and a 7-year, 2-month schedule when the Study cost and time frame under FCSA1 is included; and

WHEREAS, FCSA1, authorized by the Port Commission under Resolution 18-46 and amended under Resolution 20-24, expired as of September 9, 2021; and

WHEREAS, USACE and the Port need a new FCSA2 to continue the Study, if the Assistant Secretary of the Army approves the waiver recommended by USACE Headquarters; and

WHEREAS, The Port has funds allocated in its Seawall Resiliency Project, 12672 - Seawall & Marginal Wharf Repair to provide the required cost matching contribution, where the Port will determine the mix of cash and credit for in-kind services required of the Port under the FCSA2; and

WHEREAS, Due to the complexity of the Study and the transfer of the Study to USACE SWD, a new agreement between Port and USACE is warranted, that (1) increases the Study budget by an additional \$10 million (50% of which is the Port's responsibility), (2) provides an additional 50 months from execution of the FCSA2 to complete the Study, and (3) gives the Port the option to provide its cost match contribution earlier than federal appropriations to the Study, which may be a useful option to advance the Study in the event that Federal funding is not available in a given budget year, as further described in the staff report accompanying this resolution; now, therefore, be it further

RESOLVED, That, subject to approval by the Board of Supervisors and the approval of a waiver by the Assistant Secretary of the Army, the Port Commission hereby authorizes the Executive Director to enter a new FCSA2 and amendments, if necessary, that (1) allows the Port to elect to provide its cost match contribution earlier than federal appropriations to the Study, (2) increases the Flood Study budget by an additional \$10 million, increasing the Port's 50% total local match to \$8 million (\$3 million for FCSA1 and \$5 million for FCSA2) in Port funds or in-kind contributions to the Study, and (3) allows for an additional 50-months to complete the Study, as described in the staff report accompanying this resolution, and in such form as approved by the City Attorney; and be it further

RESOLVED, That future advance cash funding to USACE under the accelerated funding clause of the FCSA2 is subject to approval from the Port Commission and the Board of Supervisors; and be it further

RESOLVED, That the Port Commission hereby authorizes the Executive Director to execute any documents required for the implementation of a new FCSA2 as described in this resolution and accompanying staff memorandum, including any letters of intent, amendments, augmentations or extensions thereof necessary to implement the transaction contemplated by the FCSA2 and this resolution which, when taken as a whole, the Executive Director determines in consultation with the City Attorney, are in the best interests of the Port, and do not materially decrease the benefits or materially increase the obligations or liabilities of the Port, and are necessary or advisable to complete the transaction that the FCSA2 and this resolution contemplates.

***I hereby certify that the foregoing resolution was adopted by the Port Commission at its meeting of October 12, 2021.***



Secretary