Homer Navigation Improvement, AK
Feasibility Study, Alaska

PROJECT MANAGEMENT PLAN

A Partnership of

the U.S. Army Corps of Engineers and

the City of Homer

November 2023

Version 1

US Army Corps
of Engineers®
Alaska District

Contents

1.0 PROJECT TITLE

Homer Navigation Improvements, AK
P2 Project #511566

2.0 PDT MEMBERS SIGNATURES

LEE.CURTIS.DALE.1235433865 Digitally signed by LEE.CURTIS.DALE.1235433865 Date: 2023.11.01 10:28:55 -08'00'

Curtis Lee
Project Manager
Date

CARR.ROBIN.JOHN.1613762228 Digitally signed by CARR.ROBIN.JOHN.1613762228 Date: 2023.11.01 10:33:28 -08'00'

Robin Carr
Plan Formulator
Date

CAMPBELL.KAYLA.NICOLE.1492589698 Digitally signed by CAMPBELL.KAYLA.NICOLE.1492589698 Date: 2023.11.01 11:14:43 -08'00'

Kayla Campbell
NEPA Coordinator
Date

ROMINE.TODD.C.1618367831 Digitally signed by ROMINE.TODD.C.1618367831 Date: 2023.11.02 09:07:47 -08'00'

Todd Romine
Real Estate
Date

CACEK.TWAIN.MILAN.1603282786 Digitally signed by CACEK.TWAIN.MILAN.1603282786 Date: 2023.11.02 11:52:08 -08'00'

Twain Cacek
Geotechnical Engineer
Date

HUBBELL.EUGENE.NORVILLE.JR.1160206965 Digitally signed by HUBBELL.EUGENE.NORVILLE.JR.1160206965 Date: 2023.11.02 12:26:20 -08'00'

Eugene Hubbell
Geomatics
Date

KETCHUM.BRANDEE.1521679154 Digitally signed by KETCHUM.BRANDEE.1521679154 Date: 2023.11.09 08:40:31 -09'00'

Brandee Ketchum
Legal Counsel
Date

O'DONNELL.SEAN.MICHAEL.1615593326 Digitally signed by O'DONNELL.SEAN.MICHAEL.1615593326 Date: 2023.11.02 08:51:38 -08'00'

Sean O'Donnell
Tribal Liaison
Date

OLIVER.LAUREN.NICOLE.1505719332 Digitally signed by OLIVER.LAUREN.NICOLE.1505719332 Date: 2023.11.01 10:42:22 -08'00'

Lauren Oliver
Hydraulics Engineer
Date

HARVEY.KARL.J.1231992193 Digitally signed by HARVEY.KARL.J.1231992193 Date: 2023.11.06 08:32:22 -09'00'

Danielle Perkins
Cost Engineering
Date

GREEN.MEGAN.A.1083788646 Digitally signed by GREEN.MEGAN.A.1083788646 Date: 2023.11.01 10:52:36 -08'00'

Megan Green
Economics
Date

TEESE.TYLER.JAMES.1269110895 Digitally signed by TEESE.TYLER.JAMES.1269110895 Date: 2023.11.01 11:18:30 -08'00'

Tyler Teese
Archaeologist
Date

~~Bryan Hawkins~~ ROB DUMOUCHEL
~~Port Director~~, City of Homer CITY MGR
Date 28NOV23

3.0 REVISIONS TO PMP

Revision Level	Approval Date	Description of Revision
Initial PMP		First issue of PMP

4.0 PROJECT DESCRIPTION

4.1 Project Purpose

The purpose of this Project Management Plan (PMP) is to outline tasks, the schedule of tasks, and cost estimates to execute the Homer Navigation Improvements, AK Feasibility Study. This study is being conducted under the Navigation business line, with the project type being single-purpose navigation (Small Boat Harbor). The existing harbor in Homer has outgrown its current footprint. The fleet has increased since the construction of its current configuration and has changed to include longer deeper drafting vessels.

The City of Homer is located in the Kenai Peninsula Borough of Alaska, approximately 220 miles southwest of Anchorage (Figure 1). It is the southernmost town on Alaska's contiguous highway system and part of the Alaska Marine Highway, a ferry service that operates along the south-central coast of the state. In 2020 the population was 5,522. Halibut and salmon sport fishing, tourism, and commercial fishing are the dominant industries. The harbor also serves as a critical supply hub for surrounding villages and nonroad-connected communities located in the Cook Inlet region. The U.S. Coast Guard (USCG) has a presence in Homer, as well, and currently stations an Island Class cutter there. The City of Homer was designated Coast Guard City on 22 May 2023.

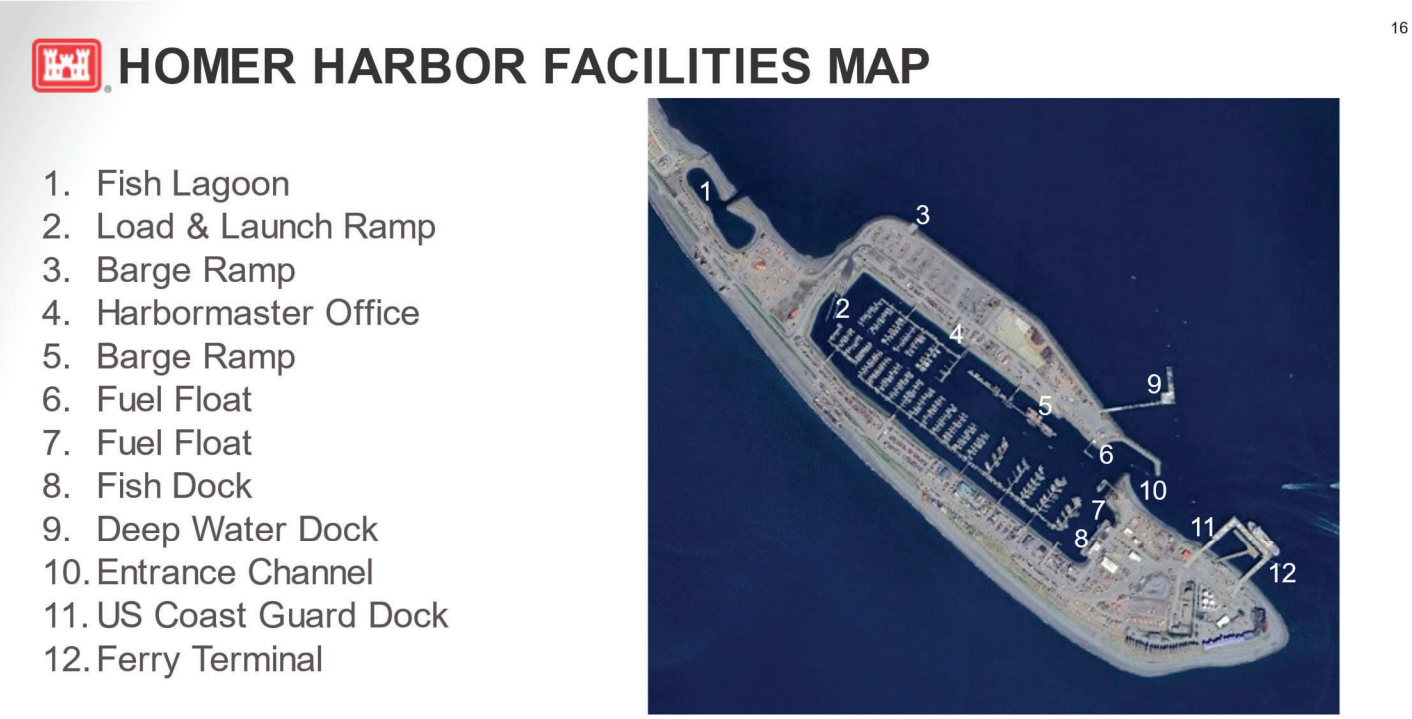
Construction of Homer Harbor as we know it began in the early 1960s. After the Good Friday Earthquake of 1964, Homer was established as a first-class municipality. This gave Homer access to Federal funding. Through a partnership with the United States Army Corps of Engineers (USACE) the harbor was reconstructed after being damaged by the 1964 earthquake. At this point the harbor basin was approximately 16 acres. By 1984 the harbor fleet exceeded the harbor's capacity, and the first harbor expansion project was initiated. Over the course of the subsequent three years this expansion continued, creating the 50-acre harbor basin that is still in use today. The current harbor hosts 889 stalls & 6,000 linear feet of transient moorage, a 5-lane boat launch and barge loading ramp, two tidal repair grids and haul out repair facility, two external dock facilities, fuel floats and a fish dock with cranes.

USACE, Alaska District (POA) will conduct a feasibility study to evaluate the advisability of modifications to the Homer Harbor to accommodate the current and future vessel fleet. The non-Federal sponsor for the study is the City of Homer.

Figure 1. Homer, Alaska, vicinity map

The existing harbor's entrance channel has a maximum depth of -22.5 feet Mean Lower Low Water (MLLW) with a basin depth range -18 to -12 MLLW. The USACE Alaska District has an annual maintenance program to maintain the navigable water way (channel entrance and fairway).

Figure 2: City of Homer Facilities



Operational inefficiencies are an issue in Homer Harbor. Increased vessel traffic, coupled with limited marine infrastructure, moorage capacity for both small vessels, and transient moorage for larger vessels, poses risks for accidents, incidents, and increases operational delays. Vessels attempting to access Homer Harbor have been experiencing delays for the last 20 years. Current harbor congestion causes significant delays for vessels entering and exiting the harbor. There is currently a 4-6 year waiting period for vessel owners to obtain slip space in the harbor. Due to the constrained harbor size and moorage issues, both large and small vessels are often turned away when seeking space. For this Study, harbor usage data, economic analysis, environmental resources, and cost analysis will be analyzed.

In the future without-project (FWOP) condition, Homer is expected to experience increasing vessel delays. Vessel traffic is expected to grow based upon forecasts of historic commercial commodity transfers plus an increase of harbor use by surrounding communities and the USCG. Homer Harbor is a transportation hub for surrounding communities.

The purpose of the study is to determine the feasibility of and Federal interest in constructing navigation improvements to satisfy current moorage demand and enable larger vessels to call at the harbor in Homer, AK. The current configuration of Homer Harbor results in operational inefficiencies, vessel damages and decreased

safety, increased costs of goods and services, and threats to the long-term viability of the region. This study will also assess the project as it relates to Preparedness and Climate Resiliency.

4.2 Study Authority

This feasibility study is being conducted under authority granted by Section 204 of the Flood Control Act of 1948, Public Law 80-858, as amended, which authorizes investigations of harbors and rivers in Alaska.:

> *"The Secretary of the Army is hereby authorized and directed to cause preliminary examinations and surveys for flood control and allied purposes...to be made under the direction of the Chief of Engineers, in drainage areas of the United States and Territorial possessions, which include the following named localities. ...Harbors and rivers in Alaska, within a view to determine the advisability of improvements in the interest of navigation, flood control, hydroelectric power, and related water uses."*

Section 105(a) of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2215(a)), specifies the cost-sharing requirements. This study will be cost shared 50 percent Federal/ 50 percent Local.

This decision document will present the National Economic Development (NED) analysis for all viable alternatives and identify the NED Plan when alternatives exist with net positive NED benefits. If there is no NED Plan and/or the selection of a plan other than the NED Plan is based in part or whole on non-monetary units (Environmental Quality and/or Other Social Effects), the selection will be supported by a cost effectiveness/incremental cost analysis (CE/ICA) consistent with ER 1105-2-100, Appendix E. The City of Homer is the non-Federal sponsor (NFS) identified on the Feasibility Cost Sharing Agreement signed and executed on 29 March 2023.

5.0 SCOPE OF WORK

A full range of alternatives providing differing levels of problem resolution will be examined during the feasibility phase. All pertinent processes, analyses, and internal and external reviews will be conducted to ensure quality of work.

5.1 Key Tasks

Key tasks for this study are listed below with estimated completion dates:

1. FCSA Execution: *CW 130 Milestone* (Completed 29 March 2023).
2. Alternatives Milestone: *CW 261 Milestone* (Completed 30 June 2023).
3. Project Management Plan (PMP) Approval (Expected 04 December 2023)
4. Tentatively Selected Plan: *CW 262 Milestone* (12 June 2025).

5. Release of draft report for concurrent review: *CW 250 Milestone* (06 August 2025).
6. Agency Decision Milestone: *CW 263 Milestone* (28 May 2026).
7. District Submittal of Final Report: *CW 170 Milestone* (27 November 2026).
8. Signed Chief's Report: *CW 270 Milestone* (29 March 2027).

Note: Dates shown above for Key Tasks assume Federal funding will be received during the Fiscal Year 2025 (FY25) budgetary cycle.

5.1.1 FCSA Executions

The Feasibility Cost Sharing Agreement for the Homer Navigation Improvements, AK Feasibility Study was executed 29 March 2023 with the City of Homer, at the Harbormaster's Office in the City of Homer. The agreement was signed by the Alaska District Commander, Colonel Damon Delarosa and Rob Dumouchel, City Manager, City of Homer. Staff from both the Alaska District and City of Homer were present to witness the signing.

5.1.2 Alternatives Milestone Meeting

An Alternatives Milestone Meeting was conducted in person and via teleconference/webinar on 30 June 2023. Upon Vertical Team concurrence at the conclusion of the meeting, a Memorandum for Record (MFR) was issued to document the Vertical Team confirming completion of the Alternatives Milestone. This Milestone initiated the timeline for submittal of the Vertical Team Alignment Memo (VTAM) requesting additional funding that is needed to complete the study. This PMP will be updated as necessary as the study progresses.

5.1.3 Engineering and Economic Analyses

The analysis of the alternatives will follow an iterative process that is linked to the economic analysis of benefits at Homer for each alternative. In general, analysis of alternatives will include the following tasks:

- Existing site conditions analysis using existing bathymetry and new geotechnical site investigations.
- ERDC will provide assistance with ShipSym modelling to make relative performance comparisons between Alternatives.
- ERDC Ship Simulator will be operated by experienced local pilots to verify harbor design and provide feedback.
- MIKE21 suite of coastal models will be run by Sponsor representative to inform harbor location, orientation, and breakwater design parameters.
- Micro-computer Aided Cost Engineering System (MCASES) 2nd Generation (MII) software will provide an integrated cost estimating system and meets USACE requirements for preparing cost estimates.
- An economic analysis of the final array of alternatives will be conducted to determine if there is a NED Plan. A small boat harbor simulation model may be used to evaluate the physical performance and economic benefits of alternatives. This program would also require a one-time approval by HQUSACE.

HarborSym may also be used. A study-specific Excel spreadsheet model will be used to evaluate benefits not estimated in harbor models. The spreadsheet model will require approval for one-time use by HQUSACE.

- Cost Effectiveness/Incremental Cost Analysis may be used for incorporation of non-monetary benefits if an NED plan is not identified.
- Measures will be combined and developed into alternatives. Analysis will include determining material quantities for a cost analysis.

The Project Delivery Team (PDT) will continue to scope the data needs throughout the life of the feasibility study. These needs will be discussed among the PDT and agreed upon as the study progresses. The Project Manager (PM) will be continually briefed on the progress of the scope, schedule, and budget of each discipline.

5.1.4 Planning Charrette

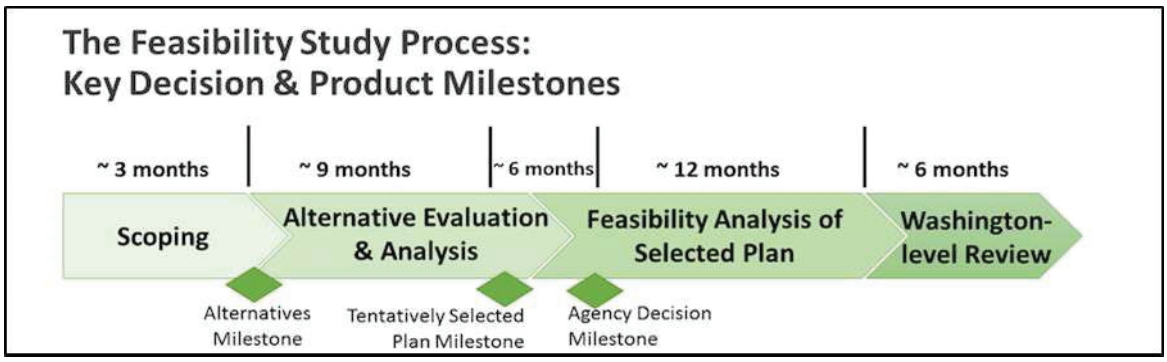
The Homer Navigation Improvements, AK, Charrette was conducted 17–19 May 2023. The planning charrette is a valuable as part of the planning process and plays a key role in enlisting the buy-in during the initial stages of project development from all parties involved with the project. The charrette involved PDT members and the USACE planning Vertical Team including POA, POD, HQUSACE. Representatives from the City of Homer were present. Other entities present included the USCG, US Department of Transportation-Maritime Administration, US Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration-National Marine Fisheries Services, Kachemak Bay Conservation Society, Cook Inletkeeper, and other local organizations.

Outcomes of the charrette include reaching a consensus on the problem statement and the objectives of the feasibility study, and the development and screening of potential measures and alternatives. Considerations and constraints for the engineering, economics, environmental, and planning disciplines were discussed, as well as the important environmental, historical, social, and political factors involved in the project. A presentation by USACE (Hydraulics & Hydrology Branch, Geotechnical & Engineering Services Branch, Environmental Resources Section, and Economics) summarized existing data and more recent work, and local perspective was presented by the City of Homer. Those in attendance identified the study problem statement, opportunities, objectives, and constraints, identification and screening of measures, and development and screening of alternatives that included both structural and non-structural measures.

5.1.5 Study Process

The study will follow the SMART planning process to address the current navigational problems and meet objectives for Homer (See Figure 3). The following is a list of problems, opportunities, and objectives developed during the planning charrette.

Figure 3: USACE SMART Planning Process for Single Phase Feasibility Studies



5.1.6 Problem

The main navigation problem at Homer is inefficiency related to the inability of the existing port infrastructure to serve the needs of the community. Increasing vessel traffic in the harbor, coupled with limited marine infrastructure and available draft and moorage capacity and the harbor, results in operational inefficiencies, vessel damages and decreased safety, increased costs of goods and services, accelerated wear on local service facilities and threats to the long-term viability of surrounding communities.

Vessels attempting to access Homer Harbor currently experience delays. Vessels over 200 ft in length cannot access the port and harbor due to configuration of harbor entrance, infrastructure, and depth limits. It is common for larger vessels to anchor outside the harbor for due to the factors listed above. Homer is expected to continue experiencing increasing vessel delays. Vessel traffic is forecasted to grow based upon trajectory of current demand levels and harbor use. Lack of mooring opportunities for vessel owners is creating economic loss as vessel owners are forced to find alternate location to birth their vessels. Homer annually turns away multiple vessels from all size classes requesting to home port.

The existing harbor facilities in Homer are overcrowded and have insufficient mooring to accommodate the existing fleet. The harbor is overcrowded due to a large number of fishing vessels and other small craft, as well as commercial lighter barges transshipping to the region, research vessels and large vessels delivering fuel to the Tank Farm for distribution to surrounding communities. Goods being delivered via the road system and distributed to surrounding non-road connected communities through the harbor. In addition, seasonal commercial fishing vessels add to the demand for space and services during peak use/fishing season.

Two USCG Cutters are currently stationed in Homer (225 ft buoy tender, 110 ft patrol vessel). They provide safety and navigation aids for mariners. The large buoy tender is not in a protected birth, it must be staffed 24-7,

creating an increased staffing burden. It is currently moored at an ocean pier that must be dredged twice annually to remain usable for the vessel.

The viability of the surrounding regional communities is also tied to Homer Harbor. The harbor acts as a regional transportation hub. Surrounding nonroad connected communities depend on supplies and goods that transshipped on lightering barges to supply these remote sites.

5.1.7 Opportunities

Opportunities exist to increase the efficiency of the Homer Harbor and create stability for the surrounding communities that rely on goods being transported through the harbor. The list of opportunities developed during the May 2023 charrette are presented below:

- Improve access for commercial and subsistence vessels to a road-connected port,
- Reduce transportation costs related to vessels required to travel to other ports,
- Promote safe working and operating conditions for vessel operators and harbor staff,
- Increase moorage facilities for large vessels,
- Reduce damages to floats and docks,
- Reduce vessel damages due to collisions and congestion in the small boat harbor,
- Increase regional economic activities, and
- Improve access for recreational activities.

5.1.8 Objectives

5.1.8.1 National Objective

The Federal objective of water and land resources planning is to contribute to National Economic Development (NED) in a manner consistent with protecting the nation's environment. NED features increase the net value of goods and services provided to the economy of the United States as a whole. Only benefits contributing to NED may be claimed for Federal economic justification of a project. For the purposes of this study, NED features may include breakwaters, channels, basins, float systems, and uplands.

Water resource planning must be consistent with NED objectives and must consider engineering, economic, environmental, and social factors. The following objectives are guidelines for developing alternative plans and are used to evaluate those plans.

5.1.8.2 Planning Objectives

The Homer Navigation Improvements, AK, Feasibility Study primary objectives are listed below. Three primary planning objectives were identified, without respect to priority as all will need to be addressed to arrive at an effective solution:

- Provide safe, reliable, and efficient waterborne regional transportation systems for the movement of commercial goods (including commercial fishing) and marine emergency response.
- Support Homer's current and future fleet with adequate harbor space, moorage, support facilities, and uplands.
- Support economic growth and a diverse local and regional economy, inclusive of the commercial maritime transportation industry, commercial fishing industry, and tourism by improving harbor access.

Any plan that is implemented as part of this Study should take into account cultural, historic, subsistence, and other natural resources. The areas that are evaluated as part of this Study have been occupied and/or utilized to varying degrees by Federally recognized Tribes since time immemorial. Development at these sites should take into account current and traditional uses in addition to cultural resources, both known and unknown.

5.1.9 Constraints

Any enacted solution will avoid or minimize the following constraints:

Universal Constraints

- Compliance with environmental laws and regulations.

Study Constraints

- Avoid or minimize impacts to existing commercial subsistence fisheries.
- Avoid or minimize impacts to circulation within Kachemak Bay.
- Avoid or minimize impacts to EFH and Anadromous Waters.
- Avoid or minimize taking of marine mammals, migratory birds, and eagles.
- Avoid or minimize impact to floodplains and wetlands.
- Avoid, minimize, or mitigate adverse effects on historic properties.

5.2 Scope of Work by Discipline

5.2.1 Project Management

The initial task is to develop the scope and schedule for the combined Feasibility Report and NEPA Document (FR/NEPA Document) and to perform project oversight on the analyses of alternatives to identify a feasible alternative that most benefits the National Economy and City of Homer. The targeted total study cost $4,154,093 with a 50% Federal / 50% Local cost share. The Federal cost share is expected to be $2,077,046.50.

The City of Homer is expected to perform $1,300,000 in work-in-kind (WIK), with a cash contribution of $777,046.50. Initial task descriptions are based on available data and the timeline. The costs may change as the study obtains data that pinpoints additional requirements and risks. This PMP will be updated with the description of the planned tasks to complete the study, any changes as they become identified, decisions made, and any additional information that is required to complete an acceptable study. The tasks will be detailed through the next milestone as the study moves forward. The initial study scope and schedule have been developed to the point of obtaining approval. Maintaining the schedule and monitoring funding and task completion to meet the estimated milestones are the primary task for the PM. Other primary duties include coordination of reviews, ensuring PDT requirements are being met, upward reporting of progress and issues, and maintaining appropriate levels of funding to execute the study on the scheduled timeline. The PM will work to obtain input from the study disciplines to assess the need for need for WIK and coordinate with the sponsor to convey the estimated cost and negotiate an agreed upon product.

5.2.2 Plan Formulation

The project plan formulator (planner) will lead the PDT through and understand the six-step planning process as presented in the Planning Guidance Notebook (ER 1105-2-100) and other associated guidance. The planner will lead the coordination and preparation of the Review Plan, Risk Register, and Report Summary. The planner will assist the PM in the coordination of, preparing readaheads for, and execution of PDT, IPR and Milestone meetings, including a charrette. The planner will coordinate development of the decision document, lead preparation of the plan formulation sections of the Integrated Feasibility Report and assist in the preparation of final submittals.

5.2.3 Economics

The economist will be expected to provide support and supply critical information during the study.

ALTERNATIVES MILESTONE

The Economic team member will participate in meetings, contribute to screening criteria applied to arrive at a focused array of alternatives, and assist the team with arriving at the focused array. The project economist will also evaluate existing and historical socio-economic conditions and other relevant data.

TENTATIVELY SELECTED PLAN MILESTONE

The Economics team member will assist in iterative screening of alternatives, using economic analysis, and identifying the tentative recommended plan. The benefit streams that are presently considered as major contributors include: Increased community resilience and viability, increased direct and indirect opportunities for national and regional economic activities, increased availability and reduced response time for emergency response, as well as other social effects. Data will be gathered to inform the analysis which will continue to be

refined through the study process. The National Economic Development (NED) and traditional food activities benefits will be captured using a spreadsheet model, that will be approved for one-time use. If there are no alternatives with net positive benefits and the community is at risk without the development of the navigational improvements, the data will be analyzed to identify the alternative that will best reduce the existing risk to the community. This information will subsequently inform a CE/ICA analysis for plan recommended. District and Agency (DQC and ATR) reviews will be conducted by assigned experts and supported by the economic section.

AGENCY DECISION MILESTONE

The Economic Section will support this review process by providing prompt responses to reviewer and public comments, resolving comments to the extent practical, revising the modeling and the draft appendix as necessary, reporting revised results to the team, and supporting the milestone meeting.

CHIEF'S REPORT MILESTONE

The economics team member will help resolve State and Agency Review comments, as well as, assisting in completing the final Feasibility Report and submit to HQUSACE.

5.2.4 Environmental Resources

5.2.4.1 *Natural Resources*

The Environmental Resources (ER) Section will provide the required natural and cultural resources content for the completion of the Integrated FR/NEPA Document. This will include work in an environmental appendix, the description of the existing and future without project conditions, environmental effects and consequences of study alternatives, environmental compliance, resource agency coordination/consultation, environmental permits and certification assistance, public involvement pursuant to the National Environmental Policy Act (NEPA), data collection, facilitation of an Environmental Stakeholder Working Group (ESWG), and PDT membership. The ER Section will also organize a ESWG Modeling Workshop with the Ecological Modeling Team from the U.S. Army Engineer Research and Development Center (ERDC) if practicable with the project budget.

The office work includes attendance of weekly PDT meetings, monthly ESWG meetings, and collaboration with PDT members during the 36-month study. A literature review will be conducted to identify and synthesize the existing information available from previous studies, investigations, journal articles, traditional ecological knowledge, and the ESWG. A description of the current and future without project conditions will be started in the office based on existing information and completed pursuant to any field investigations. The environmental effects and consequences will be prepared after the practicable alternatives are defined and adequate information is prepared regarding the resources that may be affected by the proposed action. Environmental resource information will be integrated into the main report as well as the environmental appendix. Some

formatting effort is expected for the finalization of the report. At a minimum, the proposed project will be presented to the public and agencies in the early stages of project development to solicit input on the proposed action and resources of concern, and a public notice will be prepared for the draft Integrated FR/NEPA Document that will be made available for agency and public review and comment. The release of the draft report for public notices will suffice as an Early Public Notice should alternatives occur within a floodplain and/or wetlands. A description of the existing environment and a list of the preliminary identified environmental resources of concern was presented at the planning charrette. The ER Section Chief review will be used to ensure a high-quality product is delivered to the PM.

Fieldwork required to develop a protected mooring area for larger-sized marine vessels will require site specific, recent data to sufficiently describe the current and future without project conditions that will inform the consequences and coordination with other resource or managing agencies therein in order identify and obtain necessary permits/concurrence. The fieldwork will include approximately four seasonal trips to Homer. Non-destructive fauna surveys, sediment grab sampling, eDNA sampling, beach seining, bottom trawl sampling, and drop camera survey efforts will be conducted on foot and/or from a locally procured small boat, as appropriate. Sampling efforts will be coordinated with ADFG. The primary focus for fieldwork is an area within Kachemak Bay that is adjacent and east of the current harbor. Further north along the east side of the Homer Spit and partially onto the eastern shoreline of the City of Homer are areas of further consideration as well. Potential dredged material prism and placement/disposal location(s) may be observed during fieldwork as well as time allows. Sediment grab sampling will be conducted to give preliminary chemical data to inform additional sediment sampling and analysis in the Preconstruction Engineering and Design phase. Thus, sediment within the dredge prism and the overdepth will not be adequately characterized until the Preconstruction Engineering and Design phase. Due to the nature of navigation improvements requiring a Clean Water Act (CWA) Section 404(b)(1) Report and Section 401 Water Quality Certificate (WQC), an additional resource request and coordination with Alaska Department of Environmental Conservation will be required to defer the completion of these documents to the Preconstruction Engineering and Design Phase. These documents are required for the discharge/fill into Waters of the United States from proposed project activities. Initial analysis that will inform the CWA Section 404(b)(1) Report, the CWA Section 401 WQC, and Rivers and Harbors Act (RHA) Section 10 compliance analysis will be incorporated into the Integrated FR/NEPA Document.

While the water is generally deep off the end of the Homer Spit, new work dredging may be required to develop an area of sufficient depth to accommodate the desired size of vessels. This would require the placement/disposal of the dredged material. Potential placement/disposal areas will be identified early during the study, and information gathered as deemed prudent, so changes in directions for development can be accommodated to minimize additional required data collection efforts later in the study and later phases. Beneficial reuse of dredged material will be pursued if practicable, and a Zone of Siting Feasibility document will be developed to assess potential dredged material placement/disposal. A Dredged Material Management Plan will be required as well, and it will be drafted shortly after the Zone of Siting Feasibility document. A

Letter of Authorization or Land Use Permit may be required depending on project activities to occur within State-owned submerged lands and/or tidelands.

The project will occur within Kachemak Bay, a State Critical Habitat Area (Alaska Statute 16.20.500) that excludes the waters within the current Homer Harbor and an area of water immediately adjacent to its entrance channel. This critical habitat is a component of an International Reserve of the Western Hemisphere Shorebird Reserve Network and The Kachemak Bay National Estuarine Research Reserve. There are also two important bird areas (Homer Spit and Kachemak Bay IBAs) near the City of Homer. Additionally, floodplains and wetlands extend along the coast of Homer Spit, adjacent to the current harbor. Thus, the proposed project will require a Special Area Permit if it extends into the State Critical Habitat Area (low probability) and Flood Development Permit if impacts occur within the Floodplain (high probability).

Kachemak Bay also includes Endangered Species Act (ESA) critical habitat for the ESA-listed Cook Inlet beluga whale (*Delphinapterus leucas*) and is within the range of five ESA-listed marine mammal stocks to include the Cook Inlet Stock of beluga whale, Northeast Pacific Stock of fin whale (*Balaenoptera physalus*), Western North Pacific and Mexico Distinct Population Segments (DPSs) of humpback whale (*Megaptera novaeangliae*), and Western U.S. DPS of Steller sea lion (*Eumetopias jubatus*). The Sunflower sea star (*Pycnopodia helianthoides*) also occurs within Kachemak Bay and was proposed for listing under the ESA. Thirteen marine mammal stocks protected only under the Marine Mammal Protection Act (MMPA) may also occur in the Kachemak Bay area, including the Alaska Stock of Dall's porpoise (*Phocoenoides dalli*); Eastern North Pacific Stock of gray whale (*Eschrichtius robustus*); Gulf of Alaska Stock of harbor porpoise (*Phocoena phocoena*); Gulf of Alaska Stock of harbor seal (*Phoca vitulina richardsi*); Hawaii DPS of humpback whale; Eastern North Pacific Alaska Resident and Gulf of Alaska, Aleutian Islands, and Bering Sea transient Stock of killer whale (*Orcinus orca*); Alaska Stock of minke whale (*Balaenoptera acutorostrata*); California and Eastern Pacific Stocks of northern fur seal (*Callorhinus ursinus*); Southcentral DPS of northern sea otter (*Enhydra lutris kenyoni*); North Pacific Stock of Pacific white-sided dolphin (*Lagenorhynchus obliquidens*); and Eastern U.S. DPS of Steller sea lion. Pursuant to ESA Section 7, the proposed project will require coordination and consultation with NMFS and USFWS. The level and extent of coordination/consultation with NMFS and USFWS will be determined on the assessed level of impact to these resources. Due to piledriving activities that will be necessary for the construction of Local Service Facilities (LSF), an Incidental Take Authorization will be required pursuant to MMPA unless the NMFS accepts construction shutdowns when marine mammals are within range of Level B and/or Level A harassment. Due to the integrated processes between the ESA and MMPA consultation processes, an ESA/MMPA Policy exception will be required to extend the completion of such consultations into the Preconstruction Engineering and Design phase.

Approximately 18 anadromous streams that flow into Kachemak Bay support multiple life stages for Dolly Varden (*Salvelinus malma*), eulachon (*Thaleichthys pacificus*) and five species of Pacific salmon: chinook (*Oncorhynchus tshawytscha*), chum (*Oncorhynchus keta*), coho (*Oncorhynchus kisutch*), pink (*Oncorhynchus gorbuscha*), and sockeye (*Oncorhynchus nerka*). Kachemak Bay includes Essential Fish Habitat (EFH) for

approximately 139 Federally managed species and/or life stages. Pursuant to the Magnuson-Stevens Fishery Conservation Management Act (MSA), the proposed project will require the submittal and subsequent coordination of a EFH Assessment with NMFS.

The proposed action area is within the range of a multitude of migratory bird species, including the ESA-listed short-tailed albatross (*Phoebastria albatrus*), eskimo curlew (*Numenius borealis*), spectacled eider (*Somateria fischeri*), and Steller's eider (*Plysticta stelleri*). Nine Birds of Conservation Concern (BCC) listed species occur within Kachemak Bay including the Aleutian tern (*Sterna aleutica*), American golden-plover (*Pluvialis dominica*), bristle-thighed curlew (*Numenius tahitiensis*), Hudsonian gotwit (*Limosa haemastica*), Kittlitz's murrelet (*Brachyramphus brevirostris*), lesser yellowlegs (*Tringa flavipes*), olive-sided flycatcher (*Contopus cooperi*), short-billed dowitcher (*Limnodromous griseus*), and yellow-billed loon (*Gavia adamsii*). Bald eagles (*Haliaeetus leucocephalus*) might also be present in the Kachemak Bay area. Formulation of mitigations will be required to coordinate construction work and avoid/minimize adverse impacts to migratory birds and eagles to avoid the need of a "take" permit.

The proposed project has potential to impact low-income, minority, children, and Tribal populations. Thus, analysis for disproportionate impacts to these populations will be conducted pursuant to Executive Order (E.O.) 12898, Environmental Justice; E.O. 13045, Protection of Children; and E.O. 13175, Consultation and Coordination with Indian Tribal Governments.

Initial activities to AMM include:

- Invite NEPA Cooperating agencies (Completed)
- Convene required interagency meeting to discuss information needs from USACE and cooperating/participating agencies. (Completed)
- Negotiate Scope of Work (SOW) for Fish and Wildlife Coordination Act Report (FWCAR), if applicable. (N/A. USFWS provided an initial Planning Aid Letter on 18 August 2023 pursuant to FWCA in lieu of report)
- Develop species list and initiate informal consultation for the ESA / MMPA. (Completed)
- Initiate NEPA scoping activities.
- Develop preliminary future without project conditions.
- Initiate Coordination with EcoMod Team for establishing the Modeling Workshop. (Completed)
- Develop SOW for survey support.

- Initiate Traditional Ecological Knowledge (TEK) / Environmental Stakeholder Working Group. (Completed)

Activities to be completed before the TSP milestone include:

- If applicable, publish Notice of Intent to develop an Environmental Impact Statement.
- Notify the Alaska State Historic Preservation Officer (SHPO) and other key stakeholders of the proposed study.
- Environmental Compliance Activities:
    - Draft Conceptual Mitigation Proposal.
    - Prepare Draft Biological Assessment(s).
    - Prepare Essential Fish Habitat (EFH) Assessment.
    - Receive Draft FWCA Report, Planning Aid Letter, or memorandum from USFWS.
    - Develop draft CWA 404(b)(1) analysis.
    - Initiate Coordination for Permits, as applicable:
        - CWA Section 401 WQC.
        - Special Area Permit.
        - Floodplain Development Permit.
- Develop Zone of Siting Feasibility Document and subsequently draft Dredge Material Management Plan.
- Finalize schedule for Modeling Workshop occurrence and subsequent model implementation and results, if able.
- Identify required policy waivers.

Activities to be completed after the TSP milestone include:

- Determine effects of TSP on historic properties and initiate consultation on effects determination with SHPO and other Stakeholders.

- If required due to expectation of adverse effects, draft a preliminary Memorandum of Agreement (MOA) or Programmatic Agreement (PA) in accordance with the National Historic Preservation Act.

- Environmental Compliance Activities

    - Incorporate/respond to EFH Conservation Recommendations.

    - Receive Special Area Permit.

    - Receive Flood Development Permit.

    - Receive Letter of Authorization or Land Use Permit.

    - Finalize policy exception request for ESA Section 7 and MMPA, and CWA 401 WQC and 404(b)(1) Report due to timeline and budget constraints.

5.2.4.2 Cultural Resources

Cultural resources activities will include compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and cultural resources aspects of NEPA. Section 106 of the NHPA and its implementing regulations (36 Code of Federal Regulations [CFR] § 800) require that all federal undertakings be subjected to a review process to determine whether the undertaking may affect historic properties (i.e., properties that are eligible for inclusion or are listed in the National Register of Historic Places (NRHP). The review process includes consultation with the State Historic Preservation Officer (SHPO), Federally-recognized Tribes, Alaska Native Claims Settlement Act (ANCSA) Corporations, and other interested consulting parties.

Through consultation, the Federal agency determines whether the undertaking has the potential to affect historic properties, identifies the Area of Potential Effect (APE), cultural resources and historic properties within the APE, determines whether those cultural resources are historic properties, and assesses the effect of the undertaking on historic properties. If an adverse effect is found, continued consultation will be conducted to develop an agreement document that identifies appropriate mitigation to resolve the adverse effect. Tasks for cultural resource studies are defined below:

<u>Cultural Resources Tasks</u>

- Participate in PDT meetings and public meetings.

- Assist with development of Agency Workshop invitation letters in accordance with USACE policy.

- Determine the APE in accordance with Section 106 of the NHPA. Identify consulting parties in accordance with Section 106 of NHPA.

- Draft study notification letters for consulting parties in accordance with USACE policy.
- Conduct review of relevant grey and published literature.
- Identify cultural resources and historic properties in the APE in accordance with Section 106 of the NHPA.
- Conduct historic building and/or archaeological surveys, as necessary.
- Conduct consultations regarding the eligibility of cultural resources, as appropriate, and determine eligibility for listing in the NRHP in accordance with Section 106 of the NHPA.
- Conduct consultations regarding the effect of the proposed federal undertaking on historic properties in accordance with Section 106 of the NHPA.
- Develop an agreement document, if applicable, to resolve adverse effects in accordance with Section 106 of the NHPA.
- Prepare sections of the IFR/NEPA document related to cultural resources in accordance with NEPA.
- Finalize the administrative record in accordance with Section 106 of the NHPA and NEPA.

Cultural Resource Assumptions

Structures and buildings in the APE are not 50 years old or are not eligible for listing in the NRHP. This assumption is based on literature and records search and will be confirmed with consulting parties.

An underwater cultural resources survey is not required to appropriately identify historic properties in the APE.

5.2.5 Real Estate

Real Estate concerns include individual allotments to tribal members, Village Corporation lands, Regional Corporation lands, lands managed by private entities or corporations, and public utility holdings. There may also be some submerged lands that have been patented from older pre-statehood activities. Initial activities include research of land ownership in the areas being considered for development. The RE PDT representative will attend and participate in FSM (Feasibility Scoping Meeting), AFB (Alternative Formulation Briefing), IRC (Issue Resolution Conference), and other PDT meetings, as required.

Activities to be completed include:

- Determine the real estate requirements for each identified alternative.

- Prepare Rough Order of Magnitude (ROM) cost estimates for each alternative and provide the cost estimates to Cost Engineering.

- Prepare a map to determine number of owners, acreage, estates required, utilities to be relocated, Hazardous, Toxic, and Radioactive Waste (HTRW) contaminated lands, and other information as specified.

- If utility relocations are required, prepare an Attorney's Opinion of Compensability for each utility as noted in ES-15005, “Real Estate Facility & Utility Relocations.”

- Prepare a Takings Analysis to determine real estate requirements due to induced flooding, as appropriate.

- Prepare Gross Appraisal to determine land values, if applicable.

- Determine PL 91-646 Relocation Assistance Benefits.

- Submit the Draft RE Plan for Independent Technical Review (ITR), if applicable.

- Coordinate with the non-Federal sponsor (NFS) to assess the NFS’s Real Estate Acquisition Compatibility.

- Coordinate with the NFS to determine a reasonable and detail schedule of all land acquisition milestones, including LER certification. The dates reflected in the schedule must be agreed upon by Real Estate, the PM and the non-Federal sponsor, and notify the NFS in writing of the risk associated with acquiring lands before the execution of the Project Partnership Agreement (PPA) and the Government’s formal notice to proceed with acquisition.

- Prepare a Draft RE Plan in accordance with Section 12-16, ER 405-1-12, including a Baseline Cost Estimate for Real Estate (BCERE) or MCACES estimate for real estate.

5.2.6 Hydrology and Hydraulics

Both an engineering appendix and a cost engineering appendix will be prepared in support of the Homer Navigation Improvements, AK feasibility study. Each will be prepared at a level of detail necessary to develop a defensible baseline cost estimate that addresses all pertinent cost factors with adequate contingency factors. The engineering appendix will document the results of all engineering investigations conducted during the feasibility study, including surveying and mapping, coastal analyses and modeling, ship simulation, geotechnical investigations, and climate change analysis. The engineering appendix will be prepared by the POA Engineering and Construction Division (EC), and the cost engineering appendix will be prepared by the Cost Engineering and ATR Mandatory Center of Expertise (MCX).

In coordination with PDT, Hydrology and Hydraulics will develop potential alternative schemes for analyses. Coordinate with HDR to develop water level scenarios for modeling existing and Future With Project wave and sedimentation conditions in the project area. Complete an analysis in compliance of Climate Preparedness and Resiliency (ER 1100-2-8162 and ETL 1100-2-1). The wave, sedimentation, water level, and climate change analysis will help establish the existing and Future With Project Conditions and establish the design conditions for any wave barrier navigation feature. The vessel fleet established by the PDT will be utilized to design any entrance channel, approach channel, turning basin, and moorage areas required for Future-With-Project Conditions for four distinct harbor configurations, in compliance with EM 1110-2-1100 (Coastal Engineering Manual), EM 1110-2-1613 (Hydraulic Design of Deep-Draft Navigation Projects), and EM 1110-2-1615 (Hydraulic Design of Small Boat Harbors), as applicable. Perform ship simulation with representative users to verify harbor layout and design. Local Service Facilities will be designed, in accordance with ASCE Planning and Design Guidelines for Small Craft Harbors, with guidance from the PDT on the facilities required to claim all necessary benefits. Provide quantities and work with PDT to establish likely construction methodologies for cost estimating. Support economic analyses with incremental analyses for the use of potential alternatives to help establish the TSP.

5.2.7 Geotechnical

Geotech will conduct a geophysical survey in collaboration with the City of Homer as part of a WIK agreement to gain a better understanding of overall site conditions and subsurface stratigraphy. The geophysical survey will also assist in determining the location of boreholes for the subsequent offshore geotechnical site investigation. The geotechnical site investigation, also as part of the WIK agreement, will verify the geophysical survey's findings, enabling us to deliver an adequate feasibility design. Geotech will provide technical support and guidance to the local sponsor for all WIK products related to geotechnical and geophysical survey activities/products. We will also perform DQC and ATR on all deliverables and supervise the integration of technical data into the feasibility report.

5.2.8 Geomatics

In coordination with the PDT, collect hydrographic and topographic survey data to facilitate project feasibility analysis/design. All survey data will be collected in accordance with EM 1110-1-1005 Control and Topographic Surveying, EM 1110-2-1003 Hydrographic Surveying. Horizontal and vertical datums for the project with use North American Datum of 1983 (2011) and MLLW as defined by the NOAA CO-OPS tide station "945 5558, Coal Point, Kachemak Bay, Alaska" published 04/10/2019. Additionally, the relationship between MLLW and North American Vertical Datum 1988 will be established during the performance of the survey meeting the requirements of EM 1110-2-6056 Standards and Procedures for Referencing Project Elevation Grades to Nationwide Vertical Datums.

5.2.9 Cost Engineering

Develop Class IV and V estimates to assist in selection and ranking of alternatives and the TSP, and development of certified cost estimates for the Recommended Plan. Provide support for development of economic analyses through the planning and development stages. The project

5.3 PDT Identification

Table 1 lists the disciplines that compose the PDT. The study will also be comprised of other teams, such as the Agency Technical Review (ATR) and Study Management Team.

Table 1. Project Delivery Team

Name	Position/Title	Affiliation
Curtis Lee	Project Manager	CEPOA-PMC
Robin Carr	Plan Formulator	CEPOA-PMC-P
Bryan Hawkins	Port Director (Sponsor)	City of Homer
Lauren Oliver	Hydraulic Engineer	CEPOA-ECG-H
Megan Green	Economist	CEPOA-PMC-P
Kayla Campbell	NEPA Coordinator	CEPOA-PMC-E
Tyler Teese	Archaeologist	CEPOA-PMC-E
Danielle Perkins	Cost Engineer	CEPOA-ECD-C
Todd Romine	Realty Specialist	CEPOA-RE
Eugene Hubbell	Geomatics	CEPOA-ECG-G
Twain Cacek	Geotechnical Engineer	CEPOA-ECG-M
Sean O'Donnell	Tribal Liaison	CEPOA-PM
Brandee Ketchum	Attorney	CEPOA-OC

5.4 DDN-PCX Coordination

Coordination has begun with the USACE Deep Draft Navigation Planning Center of Expertise (DDN-PCX) to engage their expertise for performing ATR, model development and certification, and to maintain a level of independent expertise for study-related actions.

6.0 PROJECT SCHEDULE, MILESTONES AND BUDGET

6.1 Project Schedule and Milestones

The project schedule in the PMP is based upon approval and funding of the feasibility study and the executed Feasibility Cost Sharing Agreements (FCSA). The major-milestone project schedule showing the initial, proposed, and actual dates is summarized in Table 2.

Table 2. Major Milestones Schedule Summary

Major Milestone	Comments	Original Completion* Date or Period (day-month-year)	Proposed Schedule – Assumes FY25 Funding (day-month-year)	Actual or Revised Date (day-month-year)
FCSA	Complete	N/A	N/A	29-Mar-2023
Alternatives Meeting	Complete	30-Jun-2023		30-Jun-2023
Milestone MFR	Complete	14-Jul-2023		14-Jul-2023
Tentatively Selected Plan Meeting	Not Started	12-Jun-2024	12-Jun-2025	
Public Review Period	Not Started	05-Aug-2024	06-Aug-2025	
Agency Decision	Not Started	28-May-2025	28-May-2026	
Final District Transmittal	Not Started	28-Nov-2025	27-Nov-2026	
Chiefs Report	Not Started	29-Mar-2026	29-Mar-2027	

N/A – not applicable TBD– to be determined * - Schedule assumes a continuous Federal funding stream.

Due to lack of Fiscal Year 2024 (FY24) funding it is unlikely that the project will meet the original schedule shown above that was established with the execution of the FCSA. The Proposed Schedule shown above assumes the study will receive funding during Fiscal Year 2025 (FY25) and is the most likely outcome. A detailed proposed project schedule assuming FY25 funding that identifies critical project paths, tasks, and milestones to submittal of the feasibility report is included in Appendix A. The study will follow the current planning process (listed below with estimated completion dates) and will be updated periodically during the project until all tasks are complete.

6.1.1 Alternatives Milestone

Prior to the Alternatives Milestone, the PDT accomplished the following tasks.

- Study Scope
- Initial NEPA Scoping
- Obtain endorsement of Review Plan
- Identify Problems and Opportunities
- Begin Development of Existing and Future Without Project Conditions
- Formulate Initial Alternative Array
- District Quality Control of Pre-Milestone Submittals
- Identification of data gaps and study needs

The following items were submitted one week prior to the milestone meeting:

- Report Summary
- Study Issue Checklist

- Draft District presentation slides
- Draft Review Plan
- Draft PMP

6.1.2 Tentatively Selected Plan Milestone

Prior to the TSP Milestone, the PDT will have accomplished the following tasks:

- All Tasks Required for Achievement of the Alternatives Milestone
- Completed MCACES Cost Estimate Summary
- Completed Project Risk Management Plan
- Completion of District Quality Control of Draft Report, Appendices, and NEPA Document
- ATR of Economics and other focus areas as needed
- Approval/Certification of Planning Models
- Completed Legal Sufficiency Review of Draft Report
- Documentation and Certification of Completed Reviews
- District Quality Control of Pre-Milestone Submittals
- Formulation and Evaluation of Final Alternative Array

The following items will be revised and submitted one week prior to the milestone meeting:

- Report Summary
- Study Issue Checklist
- Draft District presentation slides
- Final Review Plan
- Final PMP

6.1.3 Agency Decisions Milestone

Prior to the Agency Decision Milestone, the PDT will have accomplished the following tasks:

- All Tasks Required for Achievement of Previous Milestones
- Completed ATR of Draft Report, Appendices, and NEPA Document
- Completed Public and Agency Review of Draft Report and NEPA Document
- Completed NHPA Coordination Document; SHPO concurrence on Assessment of Effect
- Draft NHPA Agreement Document (if applicable)
- Completed Independent External Peer Review (if applicable)
- Completed Policy Compliance Review of Draft Report per PB 2013-03
- District Quality Control of Pre-Milestone Submittals

The following items will be submitted no later than one week prior to the milestone meeting:

- Report Summary
- Study Issue Checklist
- Draft District presentation slides

6.1.4 District Transmittal of Final Report

Prior to the Senior Review Board Milestone, the PDT will have accomplished the following tasks:

- All Tasks Required for Achievement of Previous Milestones
- Completed Final Integrated Report with Appendices and Supporting Documentation per PB 2013-03
- Completed Responses to Independent External Peer Review Comments (if applicable)
- Completed District Quality Control of Pre-Milestone Submittals

6.1.5 Signed Chief's Report Milestone

Prior to the Chief's Report Milestone, the PDT will have accomplished the following tasks:

- All Tasks Required for Achievement of Previous Milestones
- Completed State and Agency Review
- Completed Final NEPA Review
- Completed Office of Water Project Review Documentation of Review Findings
- Completed Final HQUSACE Legal Certification
- Completed Final Policy Compliance Review
- Completed Chief's Responses to Independent External Peer Review Comments (if applicable)
- Completed District Quality Control of Pre-Milestone Submittals

The following items will be submitted prior to the milestone meeting:

- Chief's Report Submittal Package
- Final Integrated Report with Appendices and Supporting Documentation per PB 2013-03

6.2 Budget Assigned to Schedule

The budget to complete the feasibility study and necessary environmental documents will exceed the $3M program limit (Table 3). The anticipated project funding stream, per DPM CW 2019-02, is shown in Table 4. Table 4 assumes study funding is received in FY25. Geotechnical data gaps are causing uncertainty related the constructability of the project, these additional costs are included in the budget estimate.

Table 3. Revised Budget Estimate

Budget by Section Cost	Labor	Travel &P/D	Direct	Contract
Project Management	$170,000	$19,000	$1,600	
Plan Formulation	$147,500	$14,400	$400	
Economics	$223,783	$20,000		
Environmental &	$263,302	$21,000	$51,674	
Cultural Resources	$114,721	$15,179		
Branch Oversight (apx.15%)	$137,895			
Civil Works Subtotal	**$1,057,202**	**$89,579**	**$53,674**	
Real Estate	$40,000	$5,000		
Cost Engineering	$68,900	$5,000		
Hydraulics and Hydrology	$290,977	$18,000		$450,000
Geotech & Materials	$165,279	$20,500		
Geomatics	$82,337	$5,000		$125,000
Work-In-Kind				**$1,300,000**
Subtotal	**$1,704,695**	**$143,079**	**$53,674**	**$1,875,000**
Agency Technical Review	$90,000			
Contingency (apx.10%)	$377,645			
Total (rounded)	**$4,154,093**			

Table 4. Anticipated Project Funding Stream

Fiscal Year	Federal Funding	Local Funding	Cumulative Funding (Fed/Local)
FY23*	$349,999	$349,999	$699,998
FY25	$800,000	$800,000	$1,600,000
FY26	$900,000	$900,000	$1,800,000
FY27	$27,047	$27,047	$54,094

*PL 117-328 Congressionally Directed Spending and a below threshold reprogramming of $49,999.

The non-Federal sponsors WIK services will be an important part of this study. Clear and timely documentation of the WIK services is critical for the financial accountability of the project. Documentation of the NFS WIK services will be submitted and approved in accordance with the FCSA and applicable regulations. The actual value of the WIK services will be determined in accordance with the limitation and conditions of the FCSA for the project. Table 5 below shows the estimated costs for activities being proposed as WIK for the NFS.

Table 5. Work In-Kind Services Estimate.

Study Task	Amount
Meeting Attendance and Public Engagement	$87,000
Baseline Hydraulic Modeling	$150,000
Future with Project Hydraulic Modeling	$120,000
Revised Hydraulic Modeling - Recommended Plan	$80,000
Geophysical Survey	$185,000
Subsurface Drilling and Sampling	$600,000
Laboratory Testing	$22,000
Geotechnical Data Report (GDR)	$56,000
Total	**$1,300,000**

The PDT developed an estimate of WIK services for the Project totaling $1,300,000. The City of Homer has contracted with Henningson, Durham & Richardson, Inc. (HDR) Engineering to act as Owner-Representative to complete a portion of this work. Table 5 shows an itemized budget of anticipated hydraulic modeling work totaling $380,000 that will be performed by HDR. There is an additional $863,000 in geotechnical work that the sponsor will be providing with the assistance of HDR. The remaining $87,000 will be expended over the life of the Project through meeting attendance and public engagement directly related to the study.

7.0 RISK ASSESSMENT, VALUE ENGINEERING, AND AQUISITION STRATEGY

7.1 Risk Assessment

Potential Risks associated with the feasibility phase were identified by the PDT and qualified as presented below. The Risk Register will be updated as each milestone is reached, and new risks are identified. Unforeseeable risks will be addressed if, and when, they occur or can be identified. The project contingency will provide some protection against these risks.

- Lack of Geotechnical Data- Lack of site-specific data/information about existing geotechnical site conditions introduces significant uncertainty and risk into the budget, schedule, and performance of the project. Failure to characterize the existing geotechnical site conditions may lead to a design that is unsatisfactory or too conservative. Soil engineering parameters determined without data may lead to unstable/over-engineered slopes, over/underestimation of settlement, and insufficient or unnecessary construction techniques.

  Depending on the in-place soils, the side slope of the breakwater may range from 1.5H:1V to 2H:1V. The 2H:1V slope would require 25% more breakwater material to construct than the 1.5H:1V, resulting

in an estimated cost difference of $38 million. If the breakwater is placed upon foundation soils that cause settlement, additional breakwater material will be needed to achieve the required design height. Settlement of the breakwater may also require a significant amount of time (on the order of magnitude of years), which would have a significant schedule and budget impact. Unexpected settlement may continue to occur beyond the warranty period, resulting in long-term maintenance costs. Additional construction techniques related to the placing of breakwater materials and the use of wick drains to speed up settlement may be needed and may also have budget and schedule impacts. Doing a geotechnical site investigation will allow for the collection of the data needed to properly characterize the in-place soils and make an informed design. 10 geotechnical borings and a geophysical survey will be completed during feasibility to inform the team on the current conditions.

- Federal Funding/Project Schedule – Currently there is only federal funding for FY23. We expect most of the existing project funding to be exhausted by the end of calendar year 2023. Without congressionally appropriated funding for FY24 and beyond there is a high likelihood of a work pause. The risk rating for this is high. The PDT and vertical team are currently exploring options to fund the study. The most likely scenario is work stoppage from January 2023 to September 2024 with an assumption that funds will be allocated during the FY25 budgetary cycle. The PDT will mitigate impacts of a pause by strategically using any remaining funds for key activities during the study pause. These activities will include coordination with the sponsor related to WIK, environmental coordination and gaining approval for models being used for the study.

- ESA/MMPA Policy Compliance - an Incidental Take Authorization (ITA) from NMFS/USFWS will likely be required due to potential pile driving activities relating to LSF. The details required to submit a complete ITA application/request will not be available until Preconstruction, Engineering, and Design (PED). Without a policy waiver to extend ESA/MMPA compliance into PED, there will be additional labor costs and schedule impacts in Feasibility and a risk of rework in PED. This risk is moderate, and PED will include appropriate contingencies in cost estimates. The ITA application process takes up to 5-8 months to complete for Incidental Harassment Authorization (IHA) and 9-15 months for a Letter of Authorization (LOA). The ESA Section 7 consultation process is not initiated until ITA is through public comment period and is completed by NMFS/USFWS within 135 days. If certain information is not available in time to complete necessary consultations there is risk of schedule delay in PED.

- Impacts to Habitat and Wildlife – The Kachemak Bay State Critical Habitat area surrounds the project footprint. Current Alternative plans do not extend into the critical habitat area, but the exact footprint area is not yet determined so this remains a risk. Should project design extend into this area it would entail additional coordination with State agencies. Current mitigation measures and budget assume that project will not extend into the critical habitat area, so there is a risk to the budget if additional resource requests, coordination, and mitigation are required.

- Impacts to Kachemak Bay Circulation / Mud Bay – Circulation within Kachemak Bay and the potential impacts to Mud Bay were of great concern for the community and resources agencies (National Marine Fisheries Service – NMFS / United States Fish and Wildlife Service - USFWS / Alaska Department of Fish and Game - ADF&G). Thus, impacts to the circulation and/or Mud Bay will carry significant

weight and need to be considered a critical factor in determining the Preferred Alternative. The risk rating is low. Modifications to the concept/design of alternatives to mitigate impact on sediment circulation modeling may be necessary.

- Rejection of Dredged Material Placement Site – A dredge material management plan will be required for all alternates. It is important to identify the most cost effective and environmentally acceptable management method of the dredged material, and this will occur after TSP. Management of the dredged material will include consideration of beneficial use. Construction and dredging operations may impact fauna that reside in the area. Standard protocol will be followed to mitigate any potential adverse effects, and a placement/disposal site will require coordination/consultation with the Environmental Protection Agency (EPA) and Alaska Department of Environmental Conservation (ADEC) for approval and subsequent a Clean Water Act (CWA) Section 401 Water Quality Certificate (WQC). The risk rating is high if this plan is required during Feasibility phase. Approval of proposed placement would require sufficient analysis of the material within the dredge prism. The chemical/sediment sampling required for the dredge prism material to assess suitability of dredge material management can vary in impacts to budget and schedule. Combining chemical/sediment analysis with geotechnical work would reduce contracting, mobilization, and demobilization costs during Feasibility. However, the geotechnical work is anticipated to precede an informed dredge prism. Without an informed dredge prism based on a design fleet, z-layer and core samples would be largely uniformed, and there would be a high likelihood of inadequate characterization of the dredge prism material. A policy waiver would be required to extend the 401 WQC requirement into PED. This would allow informed z-layer and core sampling to occur in PED and avoid rework, mitigating the budget and schedule risks posed by this activity.

- Potential ESA listing of Sunflower Sea Star –There is a possibility that the Sunflower Sea Star will be listed under Endangered Species Act (ESA). The risk associated with this would relate to the difficulty to avoid/mitigate/monitor take of this species and the high potential of delay that could be posed should this species be listed. Public comments were requested by National Marine Fisheries Service (NMFS) no later than May 15, 2023, for the proposed listing of the Sunflower Sea Star. No additional information known at this time. Depending on when it is listed, it will impact the schedule differently due to the progress in consultations at that point in time, and whether public comment requirements already took place. The risk rating is low. The PDT will preemptively add the Sunflower Sea Star to the consultation processes conducted with NMFS to avoid any schedule disruptions.

- Rejection of Mike21 Model Suite – The Mike21 model suite (MIKE21 SW, HD FM, ST, BW) is an approved but not CoP preferred hydrodynamic model used for wave modeling and sediment transport. MIKE21 will be used by the City of Homer's engineering contractor, HDR, for spectral wave, tidal circulation, storm surge, harbor tranquility, and sediment transport analysis. It will build upon MIKE21 models already established in the Homer and Kachemak Bay area, resulting in a time- and cost-savings as opposed to beginning a new CoP preferred model such as STWAVE from scratch. The risk rating is low. The MIKE21 model suite was routed for approval through the Review Plan. Additionally, DQC and ATR reviewers will need familiarity with MIKE21. MIKE21 is on the HH&C Coastal SET list as approved model, but not a preferred model. Brad Bird was contacted by the Alaska District in February 2023 to verify that MIKE21 would be allowed for use for this project's wave modeling effort. He

responded that the approval process of MIKE21 would be to put the model in the review plan, and approval of the review plan indicates approval of the model.

- Ship Simulation Waiver– The existing Homer Harbor has an entrance channel maintained to -20"MLLW, but the project is a commercial small boat harbor. This new harbor will be designed for larger vessels ranging from 80" to 225" in length and drafts of 8" to 20". These are Coast Guard, research, commercial fishing, tourism, oil spill response, marine construction, geophysical survey, and landing craft vessels. The study is not looking at accommodation containerships or tankers in the new harbor. If ship simulation can be waved it would provide a cost and time savings for the study. The risk rating is low. The Alaska District submitted a DOTS request to investigate whether ship simulation can be excluded from the Feasibility study. This would include sending a ship simulation team to visit Homer and provide their assessment.

- Environmental Stakeholder Working Group (ESWG) –The ESWG was established to create a platform for community members with environmental background to share data/research with USACE as well as be more involved in the Integrated Feasibility Report and National Environmental Policy Act Document (IFR/NEPA Document) development prior to release of the draft report for public/agency comment. This group includes individuals from Tribes and local, State, and Federal organizations as well as individuals from Homer, Alaska, and communities near Kachemak Bay. The group's focus is environmental resources. The risk rating is low. If the group works as it was intended: this group could allow USACE to gain valuable environmental information from the community as it relates to experience, data, and research from individuals; local, State, and Federal agencies; and Tribes; furthermore, it could alleviate aversion in the community to the study/potential project. If the group does not work as intended: aversion to the study/project could increase and the community may lose trust in the City of Homer and USACE. The risk associated The PDT is committed to being consistent and open to manage and avoid the negative potential impacts. Proper management and recording keeping will maintain this group and mitigate risk, as it should (1) inform the environmental background/impacts (2) alleviate potential comments during public /agency review and comment period for the draft report, and (3) mitigate adverse opinions/perspectives of the environmental member of the community through active engagement.

7.2 Value Engineering

Value Engineering (VE) Studies for feasibility studies was rescinded per USACE Implementation Guidance for Section 1004 of WRRDA 2014, Removal of Duplicative Analysis. Value Engineering remains a requirement during engineering, design, and acquisition and will continue to be applied, per ER 11-1-321.

7.3 Acquisition Strategy

The feasibility study will be conducted by in-house and contract labor. Contract activities will be obtained through existing District open end Architect/Engineer contracts, service contracts (survey, geotechnical, etc.), or firm fixed price contracts. Activities performed outside the District include sponsor contracts as WIK services.

This project-specific strategy is consistent with the current version of the District's *Advance Acquisition Strategy* document as described in CEPOA-7.1-1. Such activities may include:

1. Surveys and geotechnical engineering services
2. Engineering services
3. Economic analyses
4. Modeling (HDR – WIK)
5. Environmental services (NEPA, special studies and investigations)
6. Cost estimating
7. Agency Technical Review (ATR) services
8. Independent External Peer Review (IEPR) services (as required)

7.3.1 Real Estate Asset Documentation Plan

A Real Estate Plan will be developed for this study as required by policy.

7.3.2 Closeout Strategy (including Administrative Record Plan)

Funds reserved for After Action Review and preparation of design phase agreements.

8.0 PUBLIC INVOLVEMENT PLAN

The purpose of a Public Involvement Plan is to communicate with the public in a collaborative, open, and transparent manner. The objectives of this plan are to:

- Build awareness of the project
- Gain an understanding of the concerns and desires of the community
- Inform and educate
- Correct misconceptions and rumors
- Generate mutual respect for differences
- Generate appreciation for complexity of the problems and support for the proposed solutions
- Explain the legal authorities that apply to the project
- Meet regulatory requirements such as NEPA during project development by seeking public input
- Get public engagement into the assessment process
- Move the project forward

8.1 Internal Communications Plan

The PM will take the lead role in ensuring effective communications on this project. The communications requirements are documented in the Communications Matrix (Table 6) and the PDT is shown in the Communication Directory (Table 7). The Communications Matrix will be used as the guide for what

information to communicate, who is to do the communicating, when to communicate it, and to whom to communicate.

Table 6. Internal Communication Matrix

Communication Type	Description	Frequency	Format	Participants/ Distribution	Deliverable	Owner
Cost Share Status Report	Email summary of cost share record	Quarterly	Email	Sponsor, Project Manager	Status Report	Project Manager
Project Team Meeting	Meeting to provide status updates on assigned tasks	Weekly, As Needed	In Person	Project Team	Meeting Minutes	Project Manager and Plan Formulators
Technical Design Review	Review of any technical designs or work associated with the project	As Needed	In Person	Project Team	Technical Design Package	Project Manager and Plan Formulators

Project team directory for all communications is:

Table 7. PDT Communications Directory

Name	Position/Title	E mail	Office Phone
Bryan Hawkins	Port Director, City of Homer(Sponsor)	Bhawkins@ci.homer.ak.us	907-304-1905
Curtis Lee	Project Manager	Curtis.D.Lee@usace.army.mil	907-753-2539
Robin Carr	Plan Formulator	Robin.J.Carr@usace.army.mil	907-753-2667
Lauren Oliver	H&H Engineer	Lauren.N.Oliver@usace.army.mil	907-753-2643
Megan Green	Economist	Megan.A.Green@usace.army.mil	907-753-2524
Kayla Campbell	NEPA Coordinator	Kayla.N.Campbell@usace.army.mil	907-753-2757
Tyler Teese	Archaeologists	Tyler.J.Teese@usace.army.mil	907-753-2640
Danielle Perkins	Cost Estimating	Danielle.Perkins@usace.army.mil	907-753-5675
Todd Romine	Real Estate	Todd.C.Romine@usace.army.mil	907-753-5530
Eugene Hubbell	Geomatics	Eugene.N.Hubbell@usace.army.mil	907-753-5616
Twain Cacek	Geotech Engineer	Twain.M.Cacek@usace.army.mil	907-753-2784
Sean O'Donnell	Tribal Liaison	Sean.M.Odonnell@usace.army.mil	907-753-5582
Brandee Ketchum	Attorney	Brandee.Ketchum@usace.army.mil	907-753-5502

8.1.1 Communications Conduct:

8.1.1.1 *Meetings*

The PM will distribute a meeting agenda at least 1 day prior to any scheduled meeting and all participants are expected to review the agenda prior to the meeting. During all project meetings the PM will ensure that the group adheres to the times stated in the agenda and take all notes for distribution to the team upon completion of the meeting. It is imperative that all participants arrive to each meeting on time and all cell phones should be turned off or set to vibrate mode to minimize distractions. Meeting minutes will be distributed by Lead Planner no later than 24 hours after each meeting is completed.

8.1.1.2 *Email*

All email pertaining to Project should be professional, free of errors, and provide brief communication. Email should be distributed to the correct project participants in accordance with the communication matrix above based on its content. All attachments should be in one of the organization's standard software suite programs and adhere to established company formats. If the email is to bring an issue forward then it should discuss what the issue is, provide a brief background on the issue, and provide a recommendation to correct the issue. The PM should be included on emails where schedule and/or budget are discussed or where otherwise appropriate.

8.1.1.3 *Informal Communications*

While informal communication is a part of every project and is necessary for successful project completion, any issues, concerns, or updates to schedule and budget that arise from informal discussion between team members must be communicated to the PM so the appropriate action may be taken.

8.2 External Communications Plan

The PM will take the lead role in ensuring effective communications on this project. The communications requirements are documented in the Communications Matrix in Table 9. The Communications Matrix will be used as the guide for what information to communicate, who is to do the communicating, when to communicate it, and to whom to communicate.

8.2.1 Stakeholder Identification and Engagement

There are a number of stakeholder groups that may express an interest in this study including local residents, local business owners, elected officials, the public at large, agencies from the local, Borough, State, and Federal level, marine and riverine fishermen, environmental groups, Federally Recognized Tribes, Alaska Native entities, etc.

8.2.1.1 *Stakeholder Identification*

8.2.1.1.1 Federal

- Congressional Delegation (Sen. Murkowski, Sen. Sullivan, Rep. Peltola)
- U.S. Army Corps of Engineers (POA, POD, DDN-PCX, HQ)
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- Bureau of Indian Affairs
- Environmental Protection Agency
- U.S. Coast Guard

8.2.1.1.2 Federally Recognized Tribes, Tribal Organizations, and Alaska Native Corporations (ANCs)

- Cook Inlet Tribal Council (Regional Non-Profit Tribal Consortium)
- CIRI (Regional Corporation)
- Salamatof Native Association (Village Corporation)
- Salamatof Tribe (tribe)
- Kenaitze Indian Tribe IRA (tribe)
- Kenai Natives Association, Inc. (Village Corporation)
- The Ninilchik Natives Association, Inc (Village Corporation)
- Ninilchik Traditional Council (tribe)
- Seldovia Village Tribe (tribe)
- Seldovia Native Assoicatioin, Inc. (Village Corporation)
- Native Village of Nanwalek (aka English Bay) (tribe)
- Port Graham Corporation (Village Corporation)
- Port Graham Village Council (tribe)
- Chugach Alaska Corporation (Regional Corporation)
- Chugachmuit (Regional Non-Profit Tribal Consortium)

8.2.1.1.3 Non-Federal

- State of Alaska
- Alaska Department of Fish and Game
- City of Homer
- Kenai Peninsula Borough

8.2.1.1.4 Public

- Interested Community Members
- Land Owners

- Residents of Homer and communities served by Homer
- Local Media
- Maritime and Interests
- Fishery Interests
- Commodities Shipping Interests
- Local Environmental Stakeholders

8.2.1.2 *External Engagement Strategy*

There are a number of stakeholder/communication groups (Table 8) that may express an interest in this study including local residents, local business owners, elected officials, the public at large, agencies from the local, Borough, State, and Federal level, marine and riverine fishermen, environmental groups. Alaska Native entity communication is detailed under Tribal Engagement Strategy.

Table 8. External Communications Matrix

Communication Type	Description	Frequency	Format	Participants/ Distribution	Deliverable	Owner
City of Homer	Port Commission Meeting	As Needed	In Person or by Phone	Project Sponsor, PDT	Various	Project Manager
Public	Public Meeting	As Needed	In Person or by Phone	Project Sponsor, PDT	Various	Project Manager
Public	Decision Documents, Review Plans, NEPA Documents placed on Internet	As Documents are Completed	PDF on Internet	Public	Documents Uploaded	Project Manager / Public Affairs Office (PAO)
Tribal	Charrette, Government-to-government meetings, public meetings, document review and comment	As Needed throughout the study	In Person, by Phone, letter and/or email	Federally recognized tribes and Corps staff (PM, Planner, Archeologist, Tribal Liaison)	Various	PM/Tribal Liaison
Controlled Public Group	Environmental Stakeholder Working Group	Monthly and As Needed	In Person, Phone, Email, and Virtual Meetings	Environmental Stakeholders to include individuals and organizations with environmental roles	Various	NEPA Coordinator

8.2.1.1 *Tribal Engagement Strategy*

There are multiple Tribal entities that are directly dependent on the existing harbor in Homer. A communication strategy has been developed between the PDT and City of Homer (Table 9). The purpose of this engagement effort will be to keep local Tribes informed on the progress of the study, receive input and to ensure that Tribal lands/resources are not negatively impacted by our efforts.

Table 9. Tribal Communications Matrix

Communication Type	Description	Frequency	Format	Participants/ Distribution	Deliverable	Owner
Tribal	Charrette, Government-to-government meetings, public meetings, document review and comment	As Needed throughout the study	In Person or by Phone	Project Sponsor, PDT	Various	Project Manager
Regional Corporation	Public Meeting	As Needed	In Person or by Phone	Project Sponsor, PDT	Various	Project Manager
Non-Profit	Decision Documents, Review Plans, NEPA Documents placed on Internet	As Documents are Completed	PDF on Internet	Public	Documents Uploaded	Project Manager / Public Affairs Office (PAO)
Tribal	Charrette, Government-to-government meetings, public meetings, document review and comment	As Needed throughout the study	In Person, by Phone, letter and/or email	Federally recognized tribes and Corps staff (PM, Planner, Archeologist, Tribal Liaison)	Various	PM/Tribal Liaison
Village Corporation	Environmental Stakeholder Working Group	Monthly and As Needed	In Person, Phone, Email, and Virtual Meetings	Environmental Stakeholders to include individuals and organizations with environmental roles	Various	NEPA Coordinator

8.2.2 Media Engagement Process

To the extent practicable, all media inquiries to USACE will be directed to the Alaska District Public Affairs Office (PAO). The primary contact information for Alaska District PAO is 907-753- 2520 or public.affairs3@usace.army.mil.

Media inquiries to the sponsor will be handled at the sponsor's discretion through their own means. On some matters the sponsor may wish to coordinate with USACE on their responses. In these cases, the sponsor should coordinate with the PM and Alaska District PAO.

Alaska District PAO will issue a press release to any applicable media outlets prior to the release of the Draft Feasibility Report. If other means of notification become available, the PDT will work with PAO and the sponsor to coordinate the announcement.

8.2.3 Public Response Process

During the study, USACE may field calls from members of the general public about the project. In these cases, the Planner or PM should truthfully answer questions to the extent practicable but should not speculate about outcomes, future events, deadlines, or discuss the internal workings of the USACE as they relate to this study beyond established milestones that apply to any feasibility study. The Planner or PM should feel free to refer these matters to the PAO.

9.0 CHANGE MANAGEMENT STRATEGY

The PDT is responsible for determining when amendment to this PMP is required. PDT members are responsible for monitoring their work items and identifying when changes should be recommended and for assessing the impact of the proposed change. Significant changes will require the generation of a change request form in P2 and updating the PMP as noted in CEPOA-7.1-6, Develop PMP. For the purposes of this project, "significant" category changes will include:

- Unanticipated environmental, economic, cultural resource, or social issues;
- Congressional funding reductions;
- Additional significant data-gathering requirements;
- Sponsor-requested changes or betterments;
- Any change that affects study costs and/or delivery schedule;

All other changes will be considered "minor", and will be documented by the PM in the PMP revision log, as also noted in CEPOA-7.1-6.

10.0 QUALITY MANAGEMENT PLAN

The objective of the Project Quality Management Plan (PQMP) is to ensure the successful completion of the study and delivery of high-quality study reports and supporting documents, within budget and on time. In addition, the PDT will adhere to the Alaska District quality management procedures detailed in the Quality Management Information System (QMIS), particularly the Standard Operating Procedures (SOPs) for studies, design and construction.

10.1 Project Delivery Team

The PDT is responsible for the quality, adequacy, and accuracy of the work products as well as the continuing adequacy and suitability of this PMP over the life of the project. PDT members will seek assistance from peers and the section chiefs and will advise the PM and PDT team leader of work priority conflicts as they arise. They will collect and analyze data, evaluate the alternatives, identify the National Economic Development (NED) plan (as applicable) and prepare the Feasibility Report (FR)/Environmental Assessment (EA). The FR/EA will be prepared to document study assumptions, data sources, analytical methods employed, evaluations, and identification of the TSP, Locally Preferred Plan (LPP) if applicable, and the recommended plan. Deviations of the recommended plan from the NED plan will be documented and the basis for the selection of the recommended plan will be explained.

10.2 Model Approval

The PDT will work with DDN-PCX on approval for all models necessary for the study. The model review plan will be developed in accordance with policy provided by EC 1165-2-14. Models will be approved prior to use in identifying the tentatively selected plan milestone.

10.3 District Quality Control Team

The DQC Team is made up of personnel with experience in the major disciplines. The team's purpose is to ensure that all products meet District standards for quality and completeness prior to ATR.

10.4 Agency Technical Review Team

The ATR Team is made up of USACE personnel with experience in the major disciplines from outside POA. The team's purpose is to provide an independent technical review of all elements of the study to ensure that planning, analysis, and design conform to applicable standards, policy, and guidance of the U.S. Army Corps of Engineers.

10.5 Independent External Peer Review (IEPR)

IEPR (Type I) is mandatory if any of the following are true:

- The project poses a significant threat to human life
- The estimated cost of the project is greater than $200 million
- The Governor of an affected State requests independent eternal peer review
- The project is controversial due to the size, nature, or effects of the project or the economic or environmental costs or benefits of the project

In addition to this, IEPR (Type I) may be required for decision documents in cases where the following mandatory triggers are met:

- The study includes an Environmental Impact Statement
- The study is controversial
- The project has an adverse impact on scarce or unique tribal, cultural, or historic resources
- The project has a substantial impact on fish and wildlife species and their habitat prior to the implementation of mitigation measures
- The project has a substantial impact on listed species prior to the implementation of mitigation measures

IEPR (Type II) may be required for decision documents under certain circumstances.

IEPR is the most independent level of review and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-214, is made as to whether IEPR is appropriate. There is a chance that this study will not meet any of the aforementioned conditions necessary for execution of IEPR (Type I). If that is the case, a risk-informed decision on whether to seek an exclusion from IEPR (Type I) will be made in accordance with EC 1165-2-214 at that time.

IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. Type II IEPR and Safety Assurance Review (SAR) is managed outside the USACE and is conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in ensuring public health safety and welfare.

10.6 Study Management Team

The Study Management Team (Table 11) consists of selected PDT members who are responsible for carrying out the day-to-day direction and management of the study. The Study Management team will keep the PDT and others informed of the progress of the study and of significant pending issues and actions. The Study Management team is as follows:

Table 11. Study Management Team

Name	Position	Affiliation
Curtis Lee	Project Manager	CEPOA-PM-C-PM
Robin Carr	Plan Formulator	CEPOA-PM-C-PL
Bryan Hawkins	Port Director	City of Homer

10.7 Executive Committee

The Executive Committee consists of senior representatives of POA and the non-Federal sponsor. The committee's purpose is to provide general oversight and to resolve issues that are brought to it by the study management team. In the event there are issues the committee is unable to resolve, those issues will be referred to the Alaska District Engineer with the committee's recommendations. The District Engineer will consider such recommendations in good faith, but has the discretion to accept, reject, or modify the committee's recommendations. The Study Management Team will keep the Executive Committee informed of the progress of the study and of issues requiring resolution. Members of the Executive Committee are as follows (Table 12):

Table 12. Executive Committee

Name	Position	Affiliation
Rob Dumouchel	City Manager	City of Homer
Bruce Sexauer, P.E.	Chief, Civil Project Management Branch	CEPOA-PMC

10.8 Evaluation of Lessons Learned / After Action Review Information

The PDT will evaluate the lessons learned database located at: O:\EN\Public\CW\Lessons Learned\ to determine whether or not quality issues or suggested improvements have been developed on similar projects. Relevant information will be considered in the development of the written work products for this phase of the project.

10.9 Periodic Team Meetings

PDT meetings will be conducted to coordinate the efforts of its members. The meetings will be used to discuss the study process, issues, budget, and schedules. The PM or Plan Formulators will be responsible for scheduling the meetings. The Plan Formulator will provide minutes of the meetings to the study team.

10.10 Vertical Team Coordination

The PM will be responsible for working with the planner to brief the vertical team on an ongoing and frequent basis. This can be accomplished in an informal manner such as periodic phone calls and emails throughout the study process. However, in cases of formal meetings such as in-progress reviews and milestone meetings, a more formal framework should be employed with proper read ahead materials submitted two weeks prior to the meeting, where required.

10.11 Technical Requirements

Studies conducted as part of the feasibility study may be subject to the technical requirements contained in the following references and other appropriate applicable guidance.

- Planning Guidance Notebook, ER 1105-2-100
- Water Resources Policies and Authorities Civil Works Review Policy ER 1165-2-217
- Feasibility and Post-Authorization Study Procedures and Report Processing Requirements EP 1105-2-61
- U.S. Army Corps of Engineers Business Process, ER 5-1-11
- Digest of Water Resources Policies and Authorities, EP 1165-2-1
- Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies, U.S. Water Resources Council
- Procedures for Implementing NEPA, ER 200-2-2
- Engineering and Design for Civil Works Projects, ER 1110-2-1150
- Civil Works Cost Engineering, ER 1110-2-1302
- Technical and Policy Compliance Review, EC 1165-2-203
- Civil Works Review, EC 1165-2-214
- Real Estate Handbook, ER 405-1-12
- Hazardous, Toxic, and Radioactive Waste Guidance for CW, ER 1165-2-132
- Storm Surge Analysis and Design Water Level Determination, EM 1110-2-1412
- Water Levels and Wave Heights for Coastal Engineering Design, EM 1110-2-1414
- Coastal Littoral Transport, EM 1110-2-1502
- Tidal Hydraulics, EM 1110-2-1607
- Ice Engineering, EM 1110-2-1612
- Hydraulic Design of Small Boat Harbors, EM 1110-2-1615
- Hydraulic Design of Small Boat Navigation Projects, ER 1110-2-1457

- Hydraulic Design of Shallow Draft Navigation Projects, ER 1110-2-1458
- Beneficial Uses of Dredged Material, EM 1110-2-5206
- Dredging and Dredged Material Disposal, ER 1110-2-5025
- Environmental Engineering for Small Boat Basins, EM 1110-2-1206
- Civil Works Cost Engineering, ER 1110-2-1302
- ER 405-1-12, Chapter 12, Real Estate Roles and Responsibilities for Civil Works ER 405-1-04, Appraisal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646 PGL, No. 31, Real Estate Support to Civil Works Planning
- The National Historic Preservation Act of 1966, 54 U.S. Code (U.S.C.) § 300101 et seq., Pub. L. 89-665
- Protection of Historic Properties, 36 CFR § 800
- Congressional Declaration of Purpose, 42 U.S.C. §4321 et seq., Pub. L. 91-190

10.12 Sustainability Considerations

The PDT will ensure that appropriate elements of the current version of *USACE Environmental Operating Principles and Implementation Guidance* are considered in the development of the written work products required as a result of this study.

10.13 Review Requirements

Project quality control is provided by the PDT and in-house reviews in accordance with CEPOA-7.3-4, Agency Technical Review/Design Review. Draft and final reports will undergo PDT and section chief reviews before being released for external use. Quality assurance is provided by external review as required by EC 1165-2-214. Based on 2015 Arctic Deep Draft Cost estimates, it is assumed an IEPR (Type I) will be necessary. External review will be discussed in detail in the Review Plan which is currently being developed in accordance with PB 2014-02. The PMP will be updated to reflect the completion of the Review Plan upon completion.

10.14 Lessons Learned and After Action Review

The PDT will document lessons learned throughout the study period and will conduct an AAR after completion of study in accordance with CEPOA-8.5-1-WI-02, After Action Review.

10.15 Quality Objectives

10.15.1 Project-Level Quality Objectives:

- Develop solutions to the navigational inefficiencies
- Develop cost-effective and environmentally acceptable solutions that meet study criteria and policy
- Perform study on-time and within budget

10.15.2 District-Level Quality Objectives:

- Timeliness in Project Execution - measured by comparison of actual to baseline
- Realistic schedules
- Fully staffed PDT
- Current PMP
- Consistent use of change management system
- Risk analysis
- Appropriate funding

11.0 DATA MANAGEMENT AND STORAGE PLAN

All spatial data collected for the Homer Navigation Improvements, AK Feasibility Study will be in GIS format. This includes all survey, soil boring, and hydraulic data. In addition, some old data that will be used in current analyses will be converted to GIS format. The PDT will ensure that all spatial data is compliant with the Spatial Data Standards for Facilities, Infrastructure and Environment (SDSFIE) requirements as funding allows.

All documents that are part of the Homer Navigation Improvements, AK Feasibility Study and/or For Official Use Only will be stored at O:_Projects by Location\Homer\Homer Port Expansion GI 2022 with access permissions restricted only to those who are required access as part of their official duties. The Program Manager is responsible to ensure that access permissions are maintained and that all appropriate data is stored at this location.

This Project Management Plan has been reviewed and is approved.

PALMER.VALERIE.Y.1290272005 Digitally signed by PALMER.VALERIE.Y.1290272005 Date: 2023.11.30 15:02:42 -09'00'

APPROVED DATE

Valerie Palmer
Acting Chief, Project Management Division