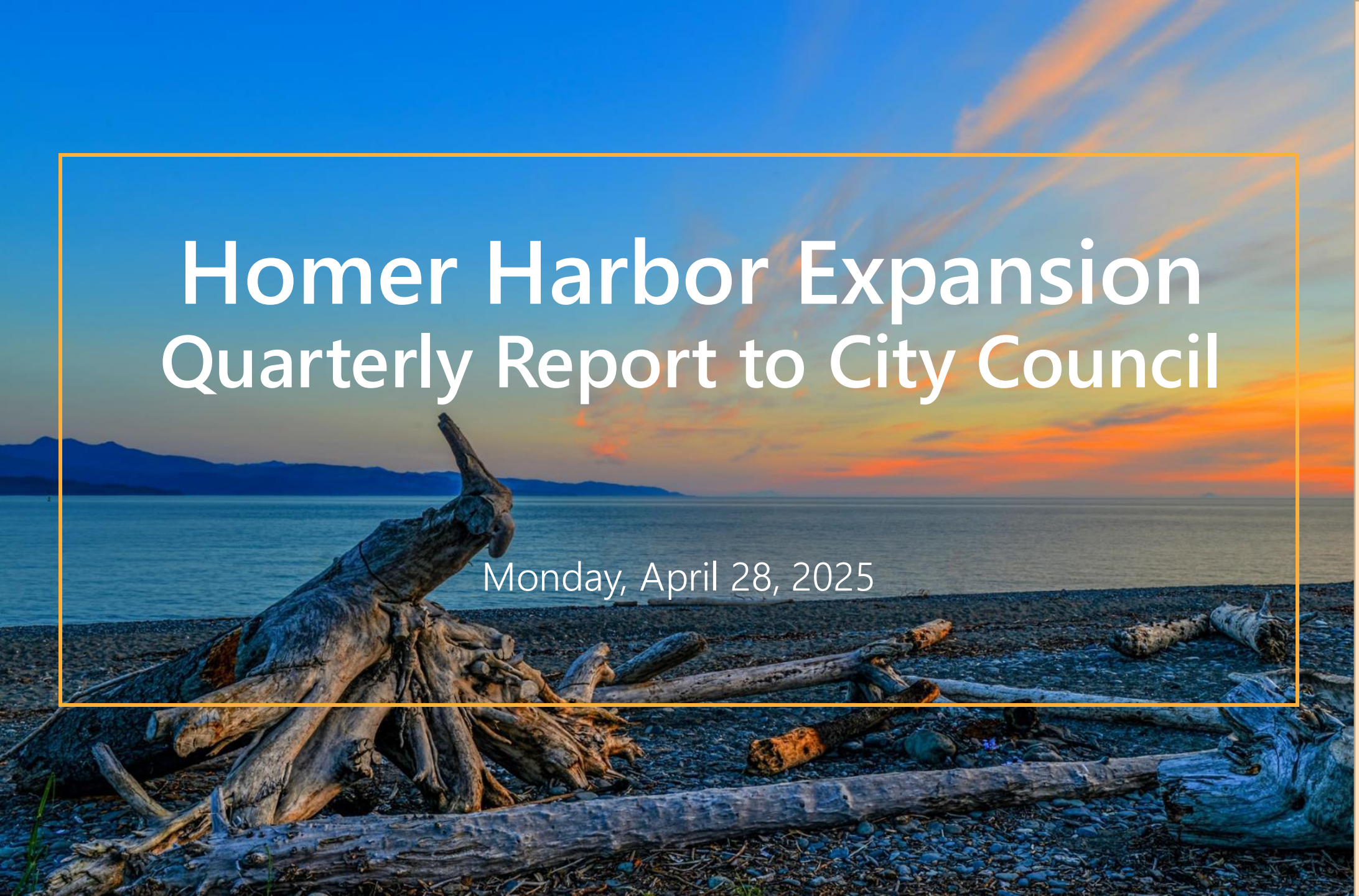
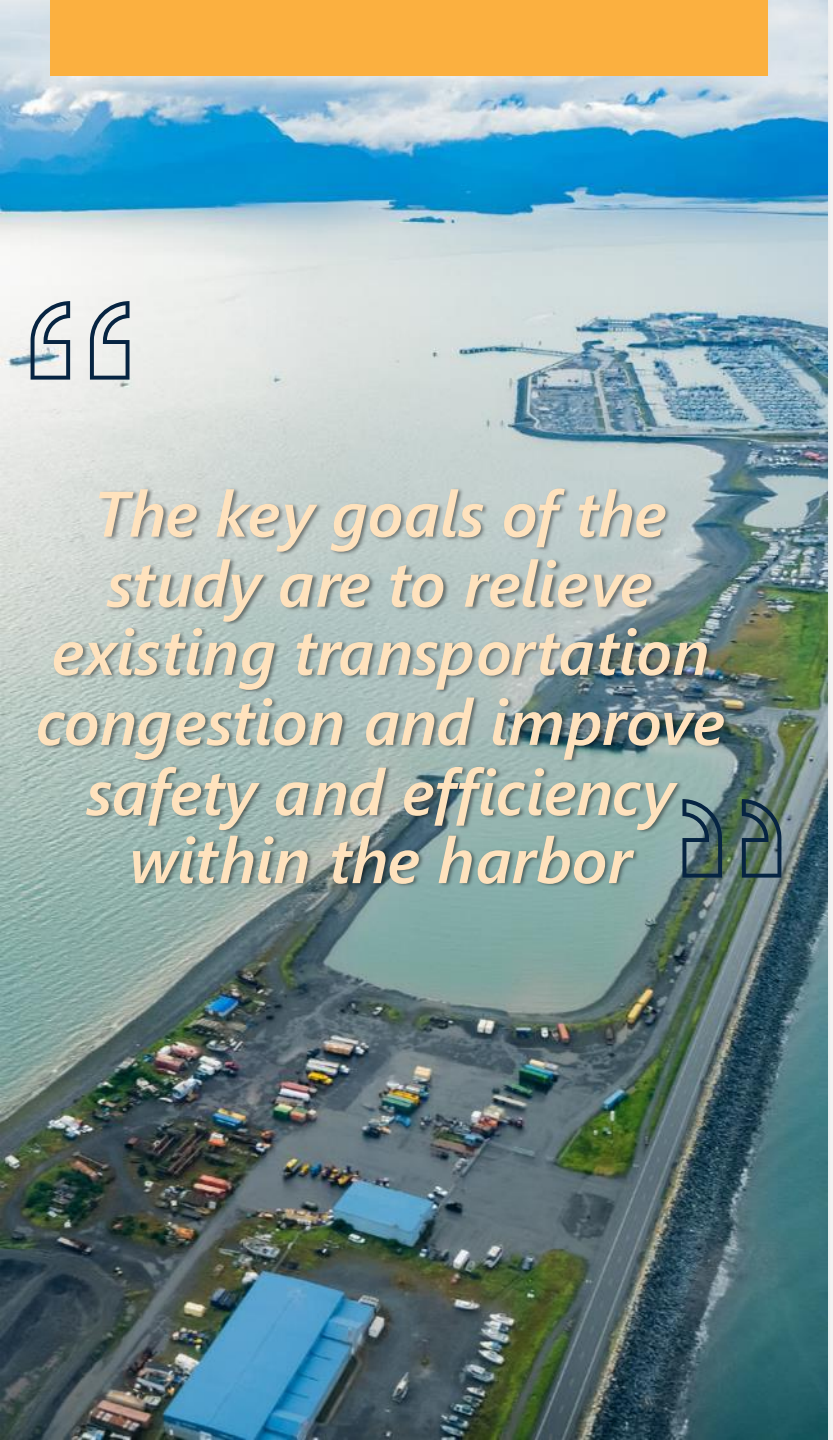


Homer Harbor Expansion
Quarterly Report to City Council

Monday, April 28, 2025



Why It's Important

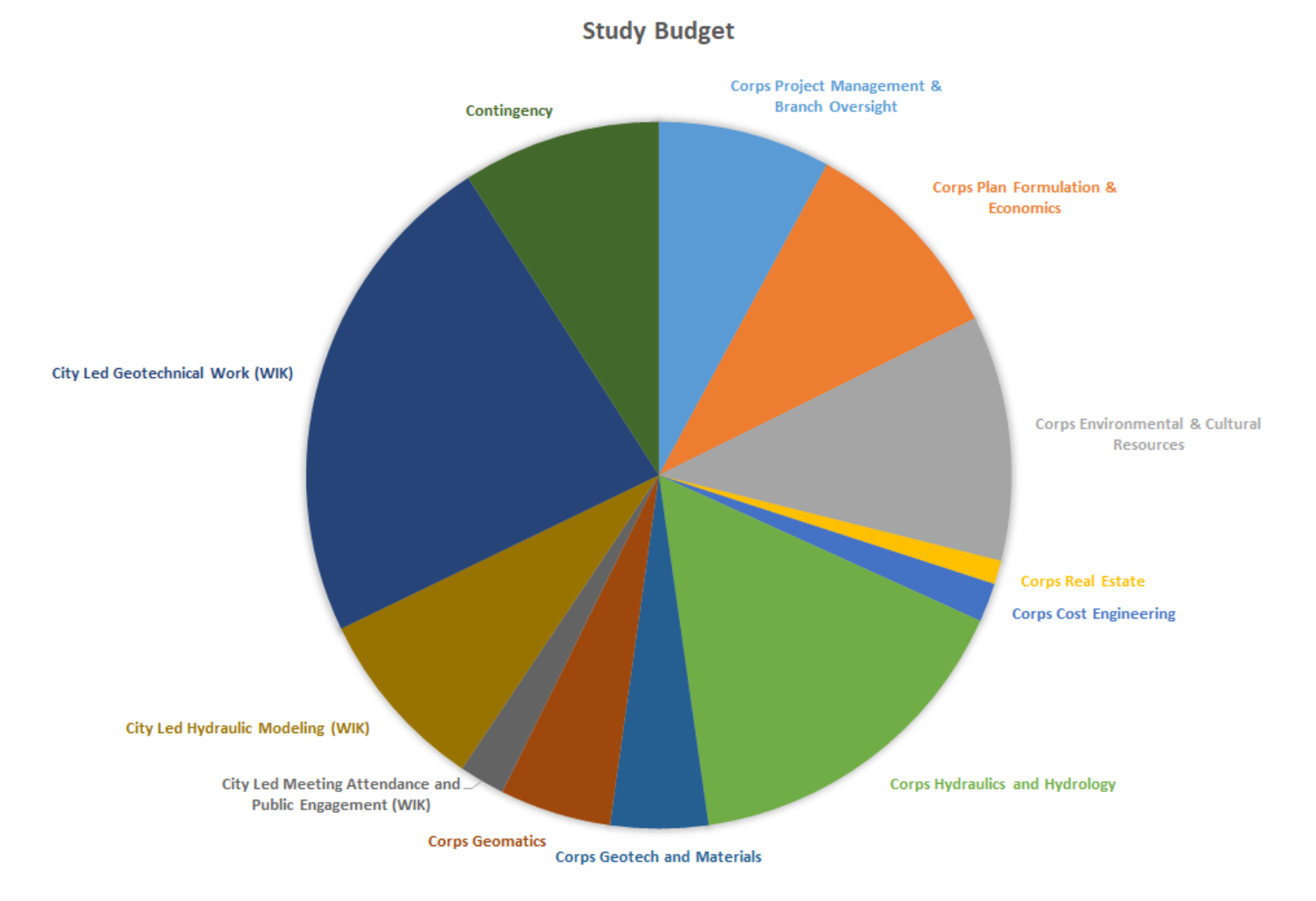
- Adequate harbor space
- Planning for Homer's future, for a strong, diverse economy
- Support safety and efficiency for key users:
  - Barges and cargo transport vessels
  - Commercial fishing fleet
  - Coastal marine research vessels
  - U.S. Coast Guard vessels
  - Pilot and tug boats
  - Recreational boats
  - Commercial sport fishing vessels
  - Ecotourism vessels
  - Water taxis

We Are Here

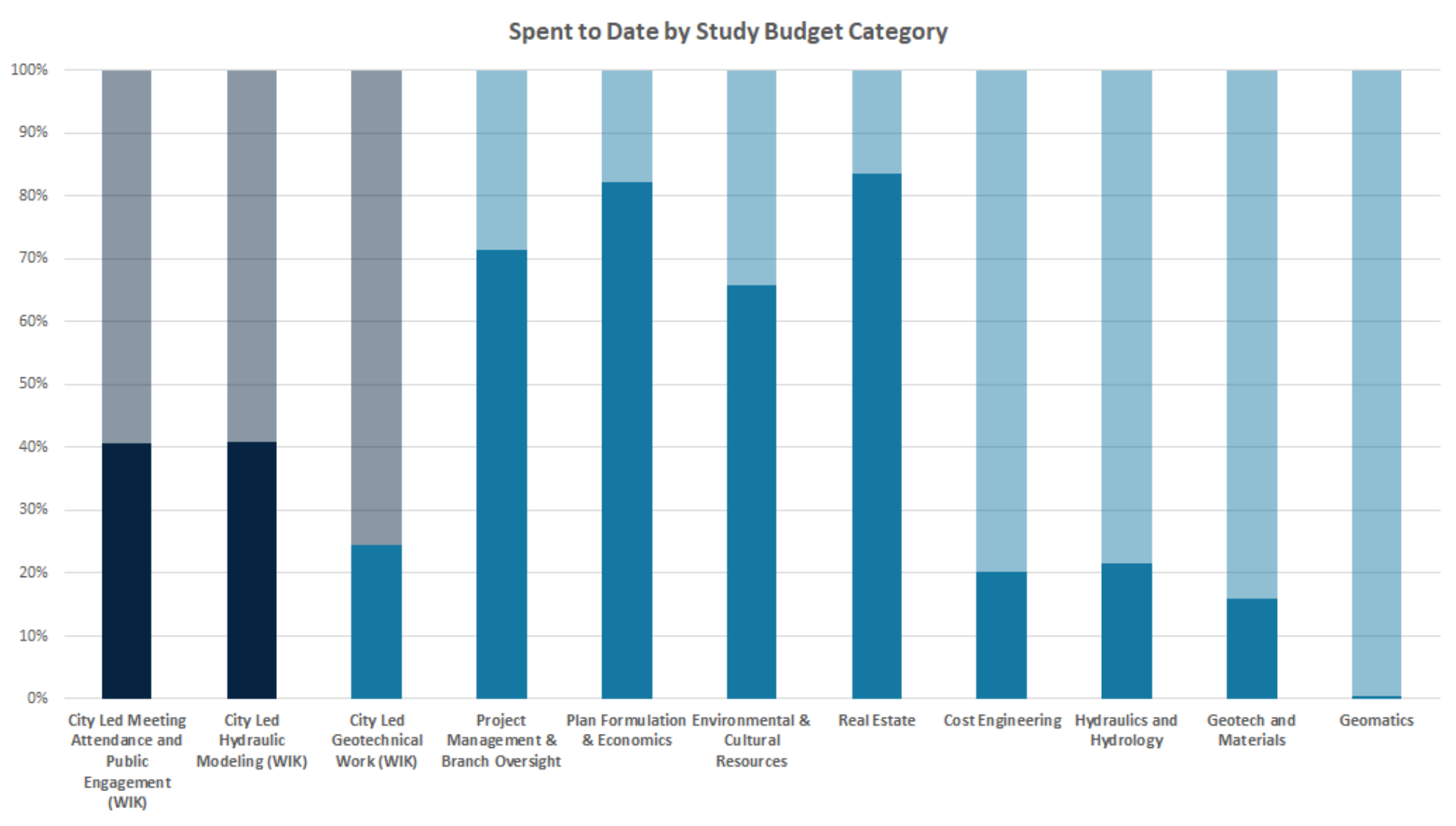
Alternative Evaluation & Analysis

- Refined Alternatives in Review NOW
  - Right-sized solution
- Committed to the Environment
  - Protecting the environment and preserving the natural beauty
  - National Environmental Policy Act (NEPA) is a key driver in the study

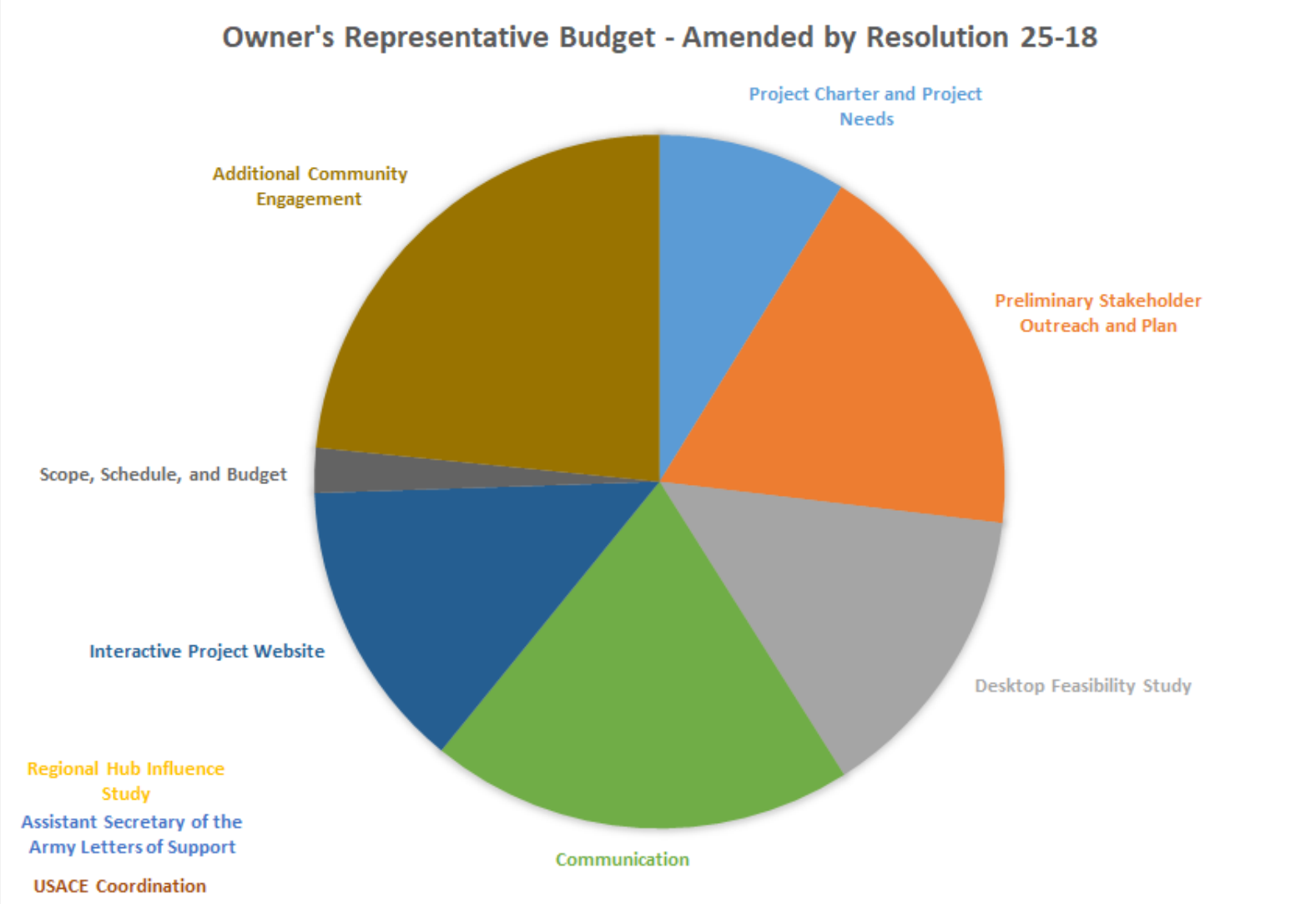
Study Finances



Study Finances



Owner's Representative Finances



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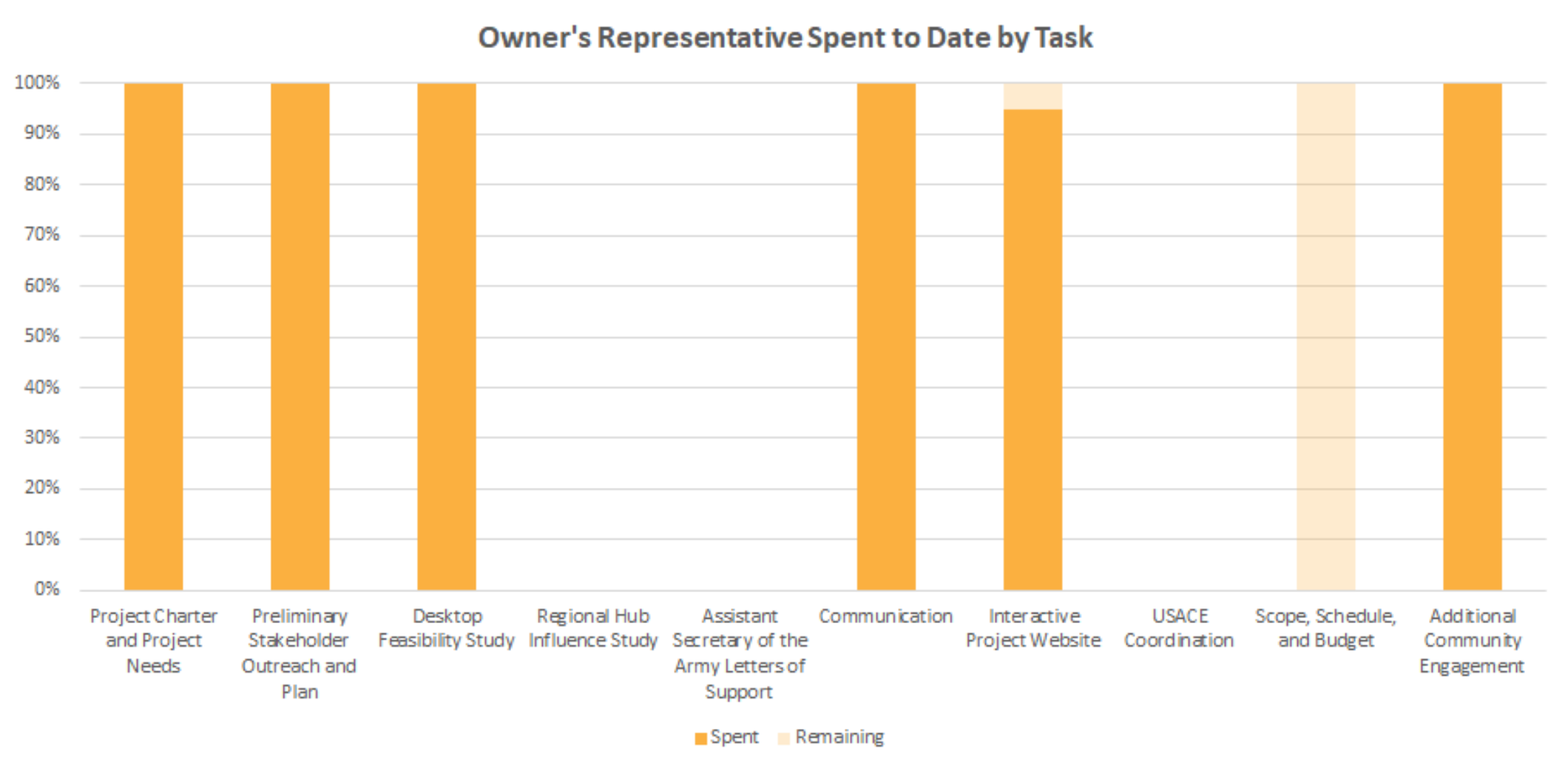


HHE Path to TSP

Economics

- National Economic Development (NED) Analysis
- Regional Economic Development (RED)
- Environmental Quality (EQ)
- Other Social Effects (OSE)

Engineering

- Data gathering/ analysis/ documentation

Environmental Resources

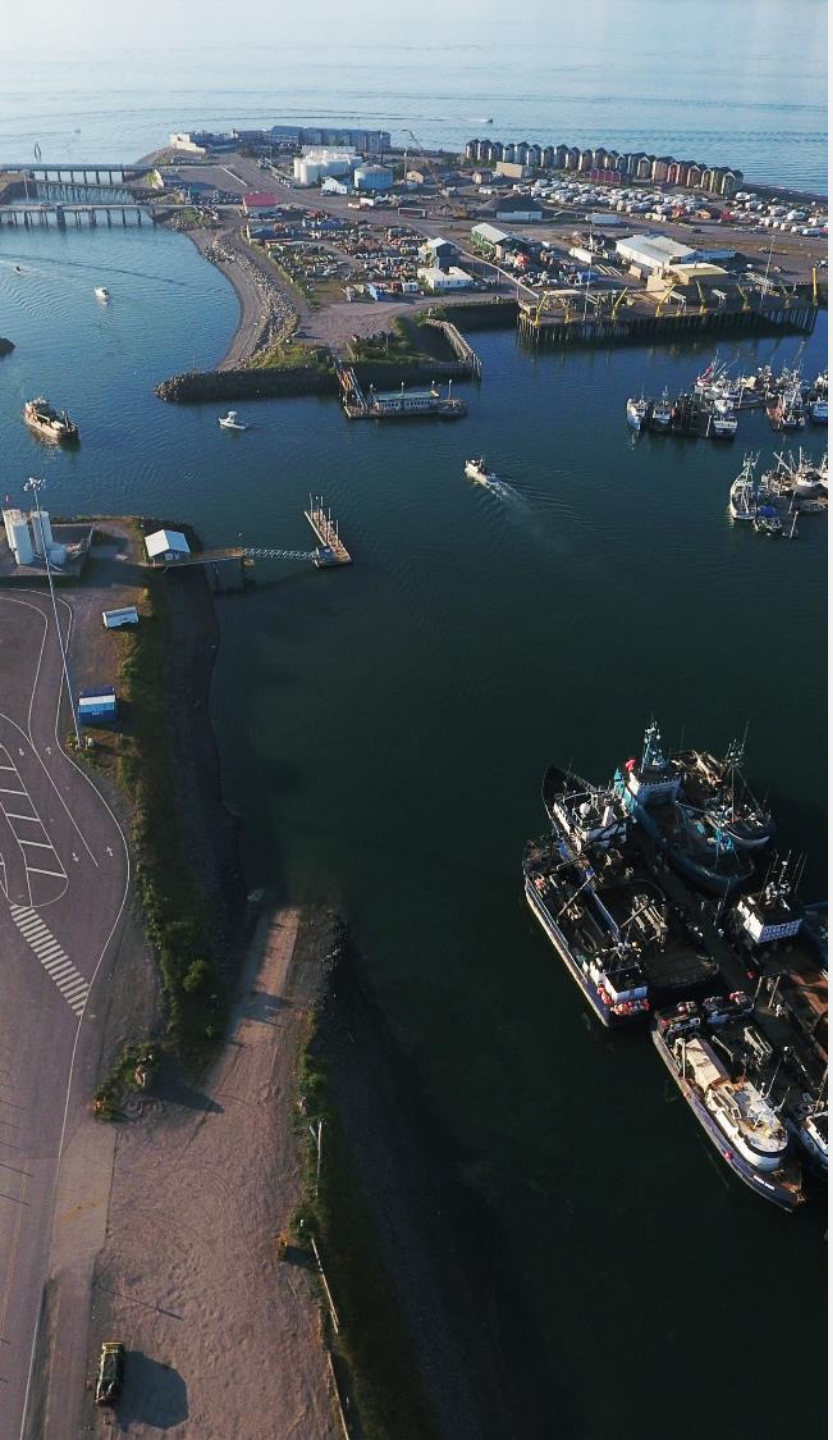
- Environmental Activities Pre-AMM
- Environmental Activities Post-AMM to TSP

Cultural Resources

- Consultation with SHPO and other stakeholders

Progress Update

- Progress Update
- Alternatives Update
- What's Next
- Questions?



Geophysical Data

What Was Done

- Sub-bottom profiling, hydrographic survey, and topographic surveys of potential expansion footprint.

Key Findings

- Homer Harbor seabed is made up of primarily gravels, pebbles, and rock.
- Geophysical results informed quantity of geotechnical core sampling (to be performed)

What's Next

- Additional core sampling to categorize sediment sub-sea floor layers.
- Geotechnical analysis to inform potential breakwater settlement.

Why It Matters

- Helps determine the potential location, depth, and boundaries of an expansion.
- More data allows for realistic designs and construction estimates.

Vessel Simulation

What Was Done

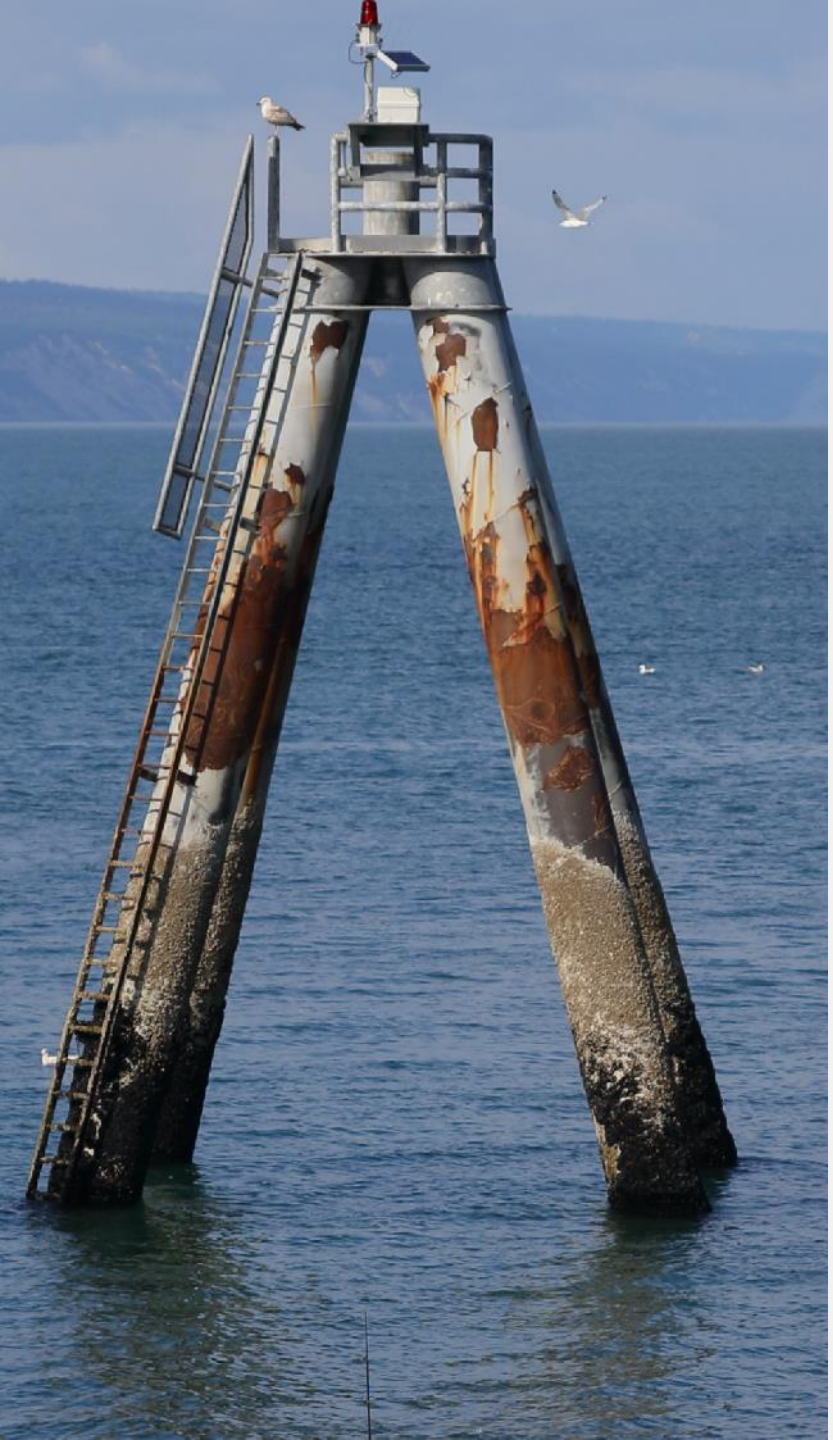
- USACE staff took photographs of the Homer area from sea and land to support building a simulation of the selected harbor expansion design.

What's Next

- After the Tentatively Selected Plan (TSP) milestone, a simulation of the preferred design will be built at the USACE Engineering Research and Development Center (ERDC).
- Vessel pilots will use virtual reality to navigate the simulation and provide feedback.
- Design changes may be conducted to address concerns raised during simulation.

Why It Matters

- Vessel simulation is a powerful tool for identifying and resolving challenges before project engineering and construction
- Has potential to help right size the design to reduce costs.



Wave Modeling

What Was Done

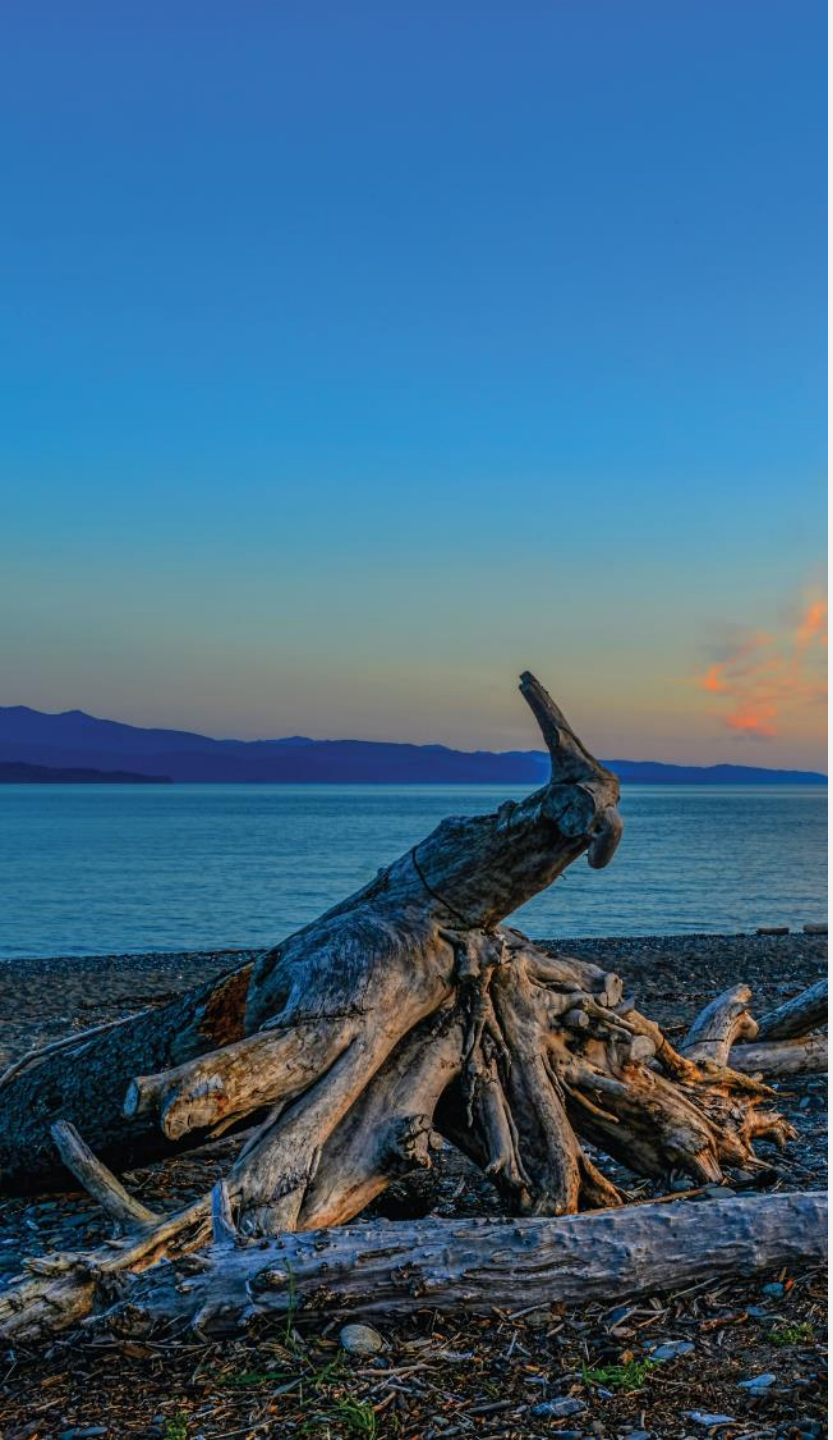
- The Study team created a wave model from historic wave data to predict likely wave conditions under a wide range of scenarios.
- Wind, waves, water levels, topography, and bathymetry data were all combined to create a baseline or “current conditions” scenario.

What’s Next

- As alternatives are advanced, preliminary harbor designs will be modeled.
- Modeling compares baseline conditions against conditions created by the design.

Why It Matters

- Wave modeling helps evaluate the environmental impacts of an expansion on the surrounding areas.



Environmental Review

What Was Done

- Environmental Working Group including 30+ local, state, and federal stakeholders.
- Two-day environmental workshop to initiate development of an ecological model.
- Near-shore beach seining, environmental DNA sample collection, bottom trawl surveys, and other fieldwork to develop existing conditions based on recent, site-specific data.

What's Next

- Additional data collection.
- Ecological model is in refinement with the support from National Oceanic and Atmospheric Administration scientists, who are completing a kelp study for incorporation.

Why It Matters

- Environmental laws and regulations (e.g., the National Environmental Policy Act) are a key driver in environmental analysis for the Study.
- The Study team is committed to protecting the environment and preserving Homer's natural beauty.

Contact: Kayla.n.campbell@usace.army.mil

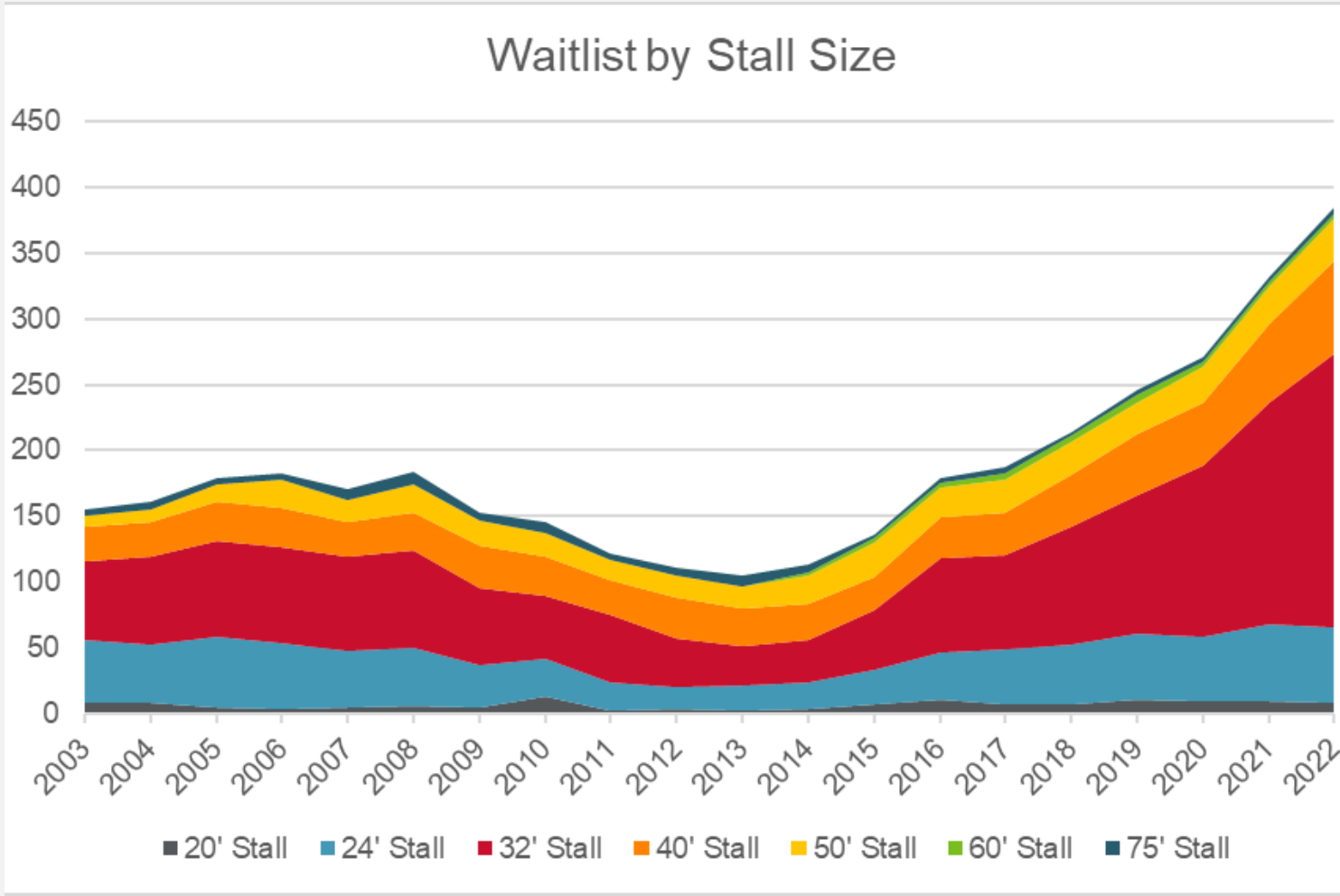
Fleet Analysis – Key Basis for Design

What Was Done

- Analyzed historical port and harbor moorage
- Assessed potential future growth based on waitlist demand trends, vessels turned away for lack of moorage, and regional/state economics
- Hosted USACE-led focus groups targeting specific harbor user types to improve and confirm economic assumptions.

Why It Matters

- Provided the foundation for the study team to right-size the harbor design ideas
- Developed 3 design fleets that were used to create Alternatives 1A/1B, 2, and 3



Alternatives Update

- Progress Update
- **Alternatives Update**
- What's Next
- Questions?

Alternative 0 – No Action

Work throughout the study will compare the conditions of the current harbor against conditions created by an expanded harbor design to determine the value and feasibility of an expansion.

Alternative 1A

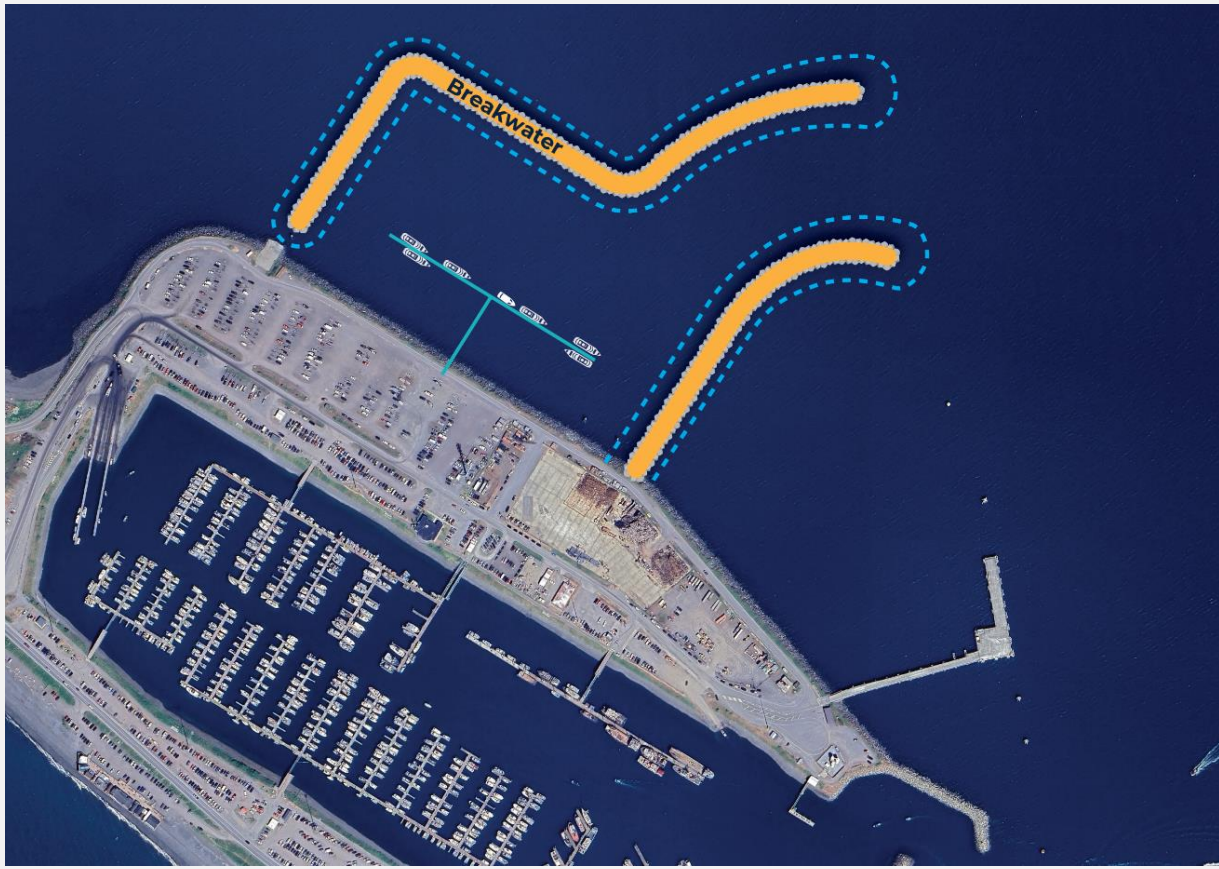
Immediate Needs

- Includes a new exterior harbor
- Relocates vessels from Transient Float System 5 from the small boat harbor to the new exterior harbor
- Accommodates vessels that use the deep-water dock
- Provides additional small craft moorage in existing harbor

Reduces rafting for large vessels within the new harbor basin.

A waitlist remains for the harbor.

Alternative 1A – Ideas 1 & 2



Large vessels - 100'-200'

Medium vessels - 50'- 75'

Small vessels - 24'- 40'

NOTE: These are refined drafts of potential harbor expansion design and are not final.

Alternative 1B

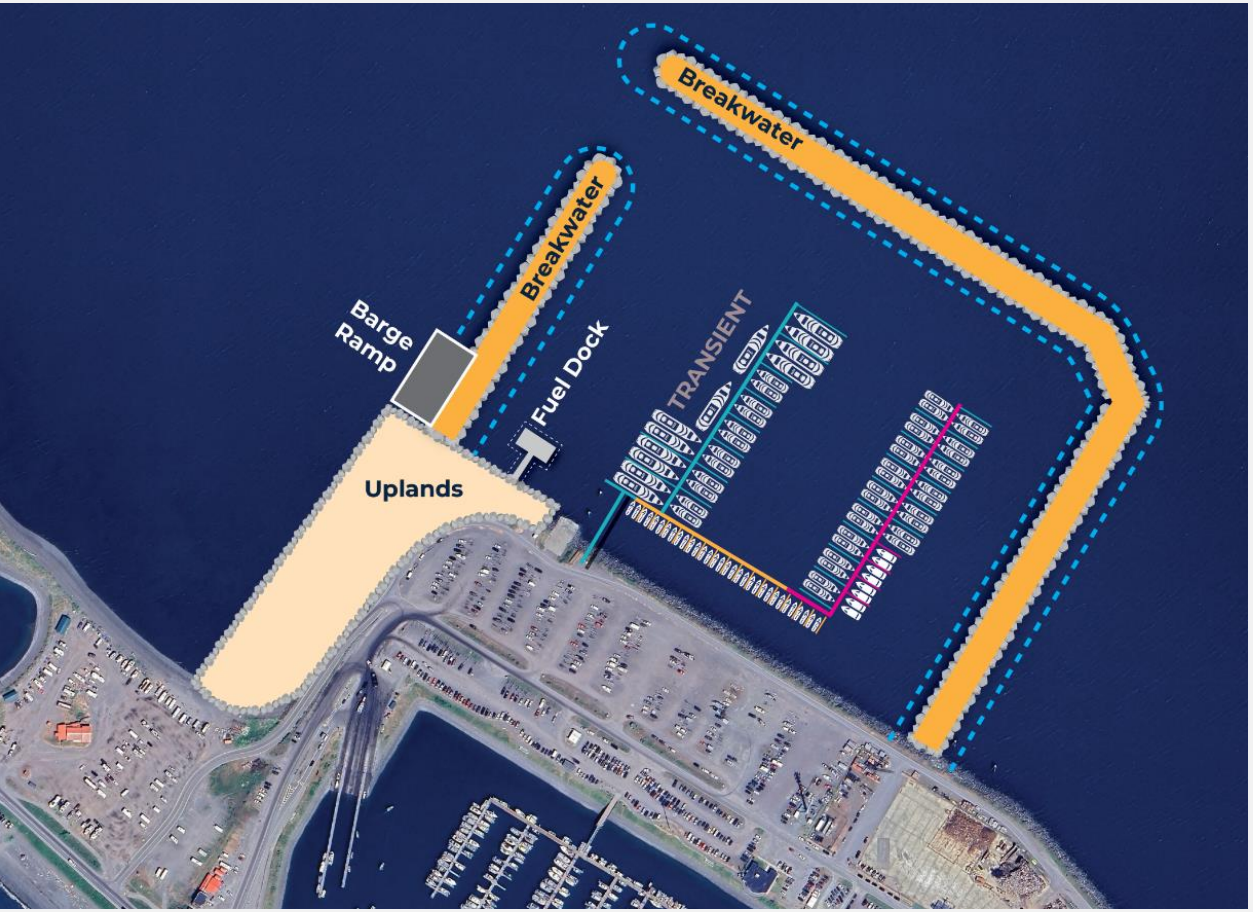
Immediate Needs+

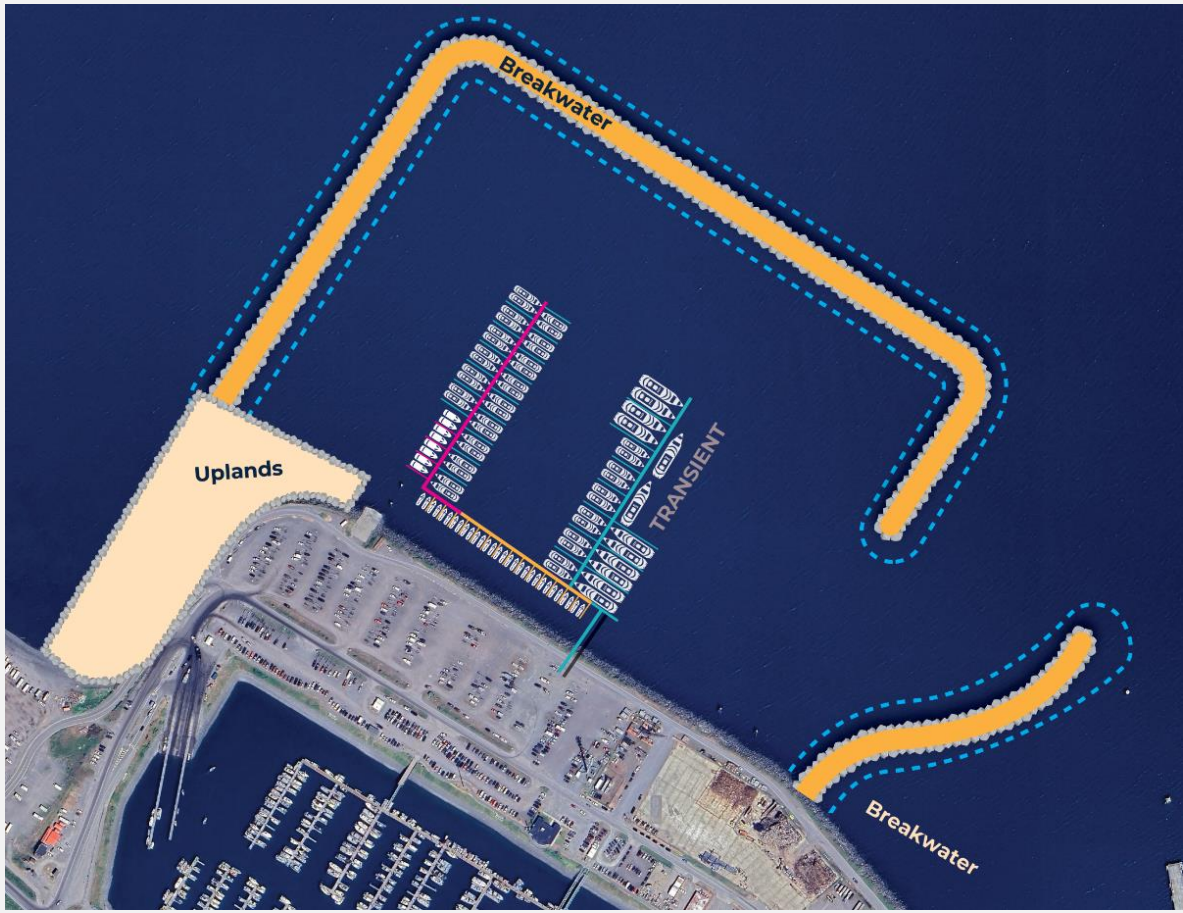
Alternative 1B contains all Alternative 1A features plus:

- Provides large vessels with dedicated stalls in new harbor basin
- Eliminates rafting
- Provides opportunity for additional uplands for local services facilities such as a fuel dock or barge ramp

A waitlist remains for the harbor.

Alternative 1B - Ideas 1 & 2





Large vessels - 100'-200'

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Alternative 2

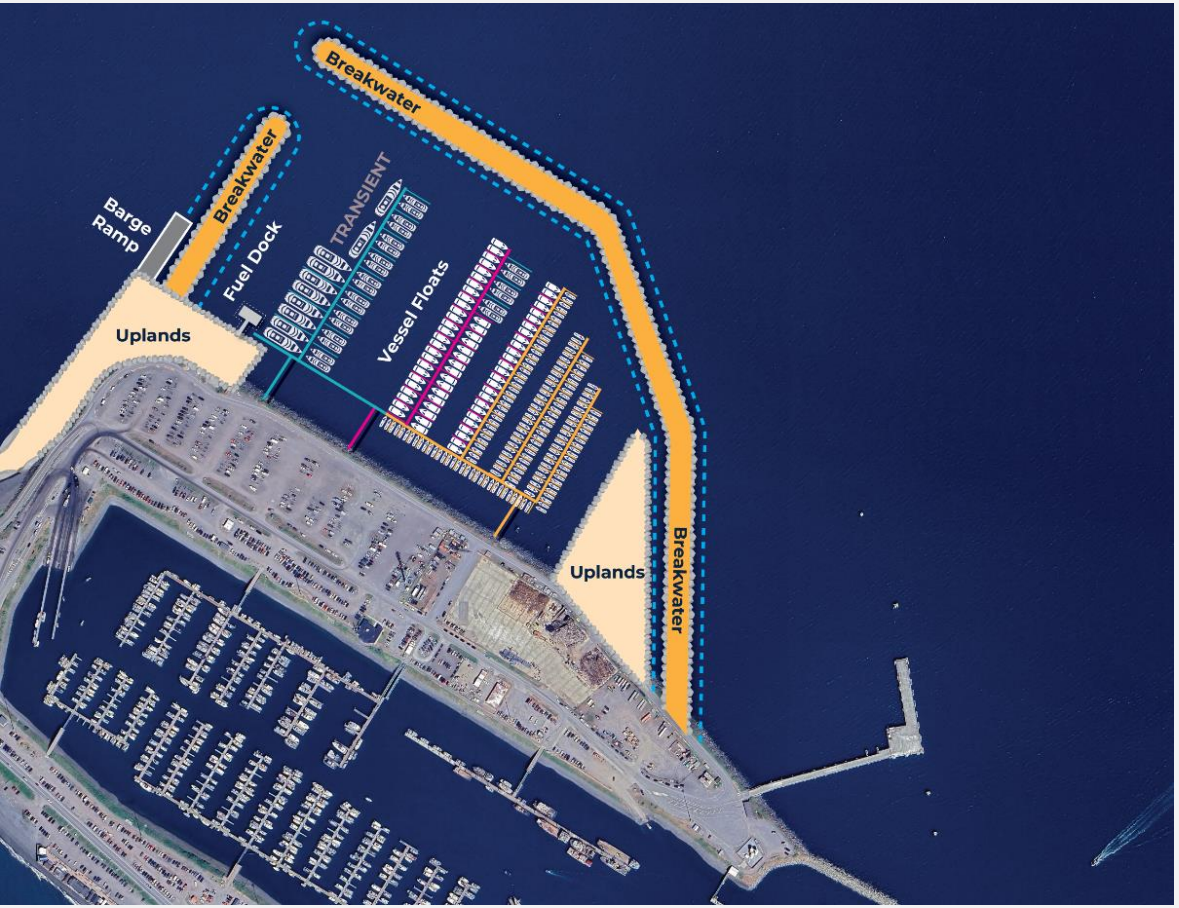
Current Needs

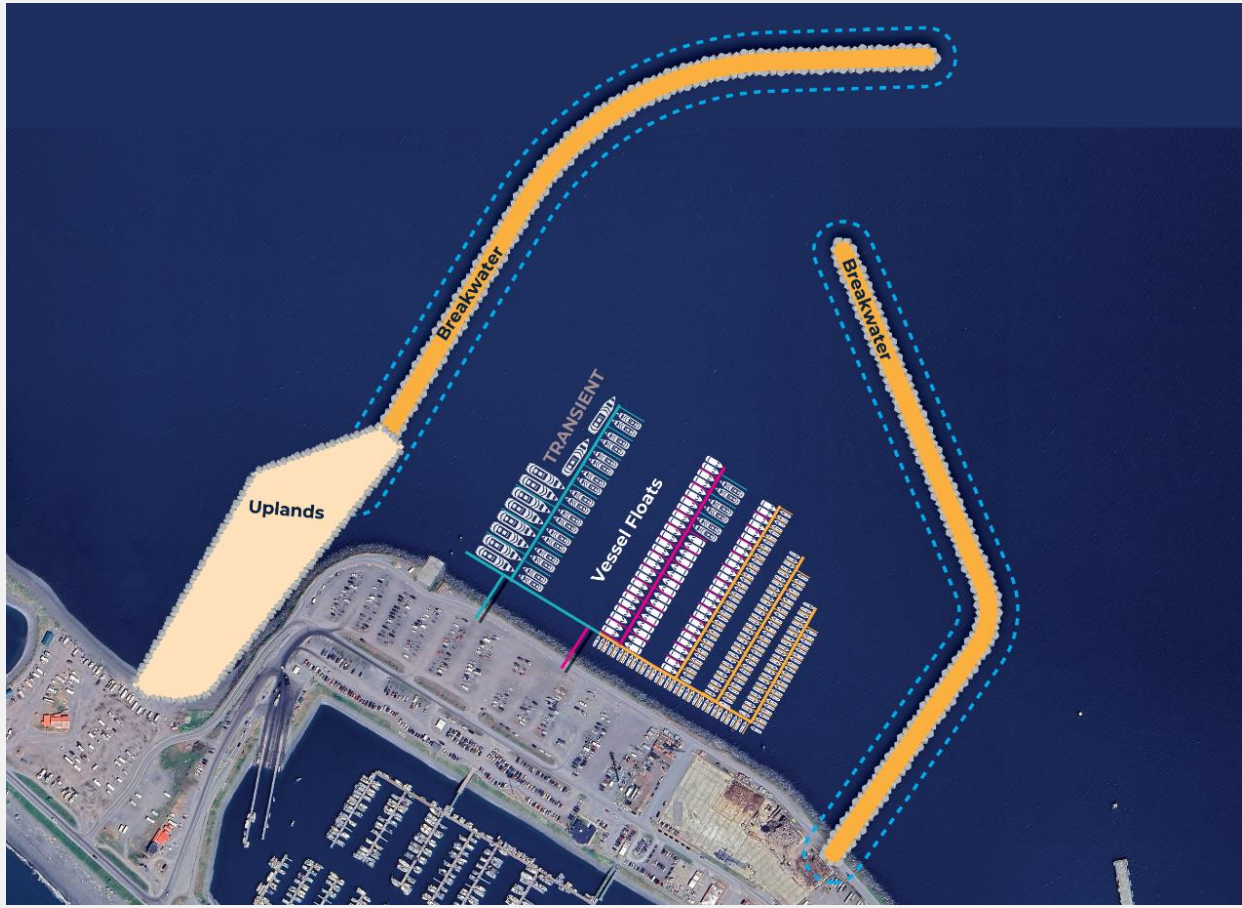
Alternative 2 contains all Alternative 1B features plus:

- Additional floats to accommodate current waitlist for moorage in the harbor
- Additional uplands for local services facilities.

Meets the existing harbor needs and demand.

Alternative 2 - Ideas 1 & 2





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Medium vessels - 50'- 75'

Small vessels - 24'- 40'

NOTE: These are refined drafts of potential harbor expansion design and are not final.

Alternative 3

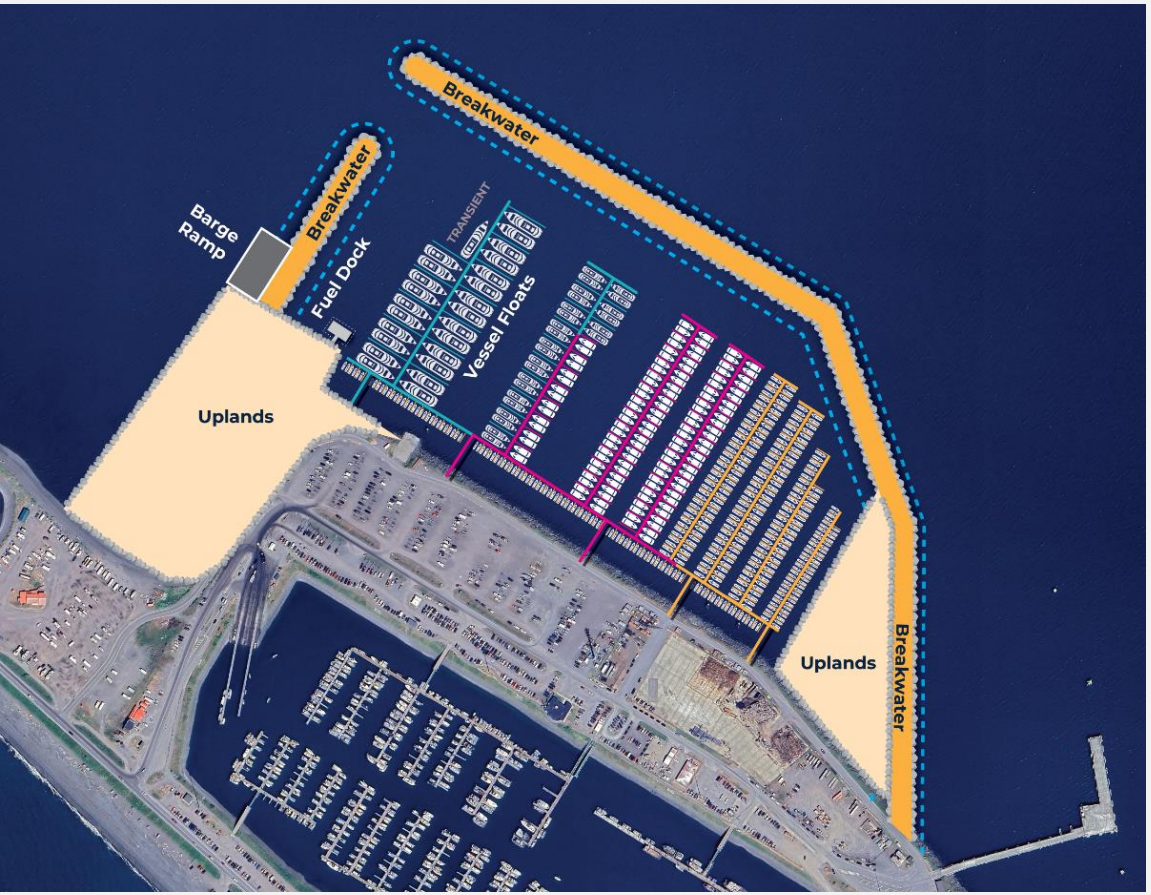
Modeled Growth

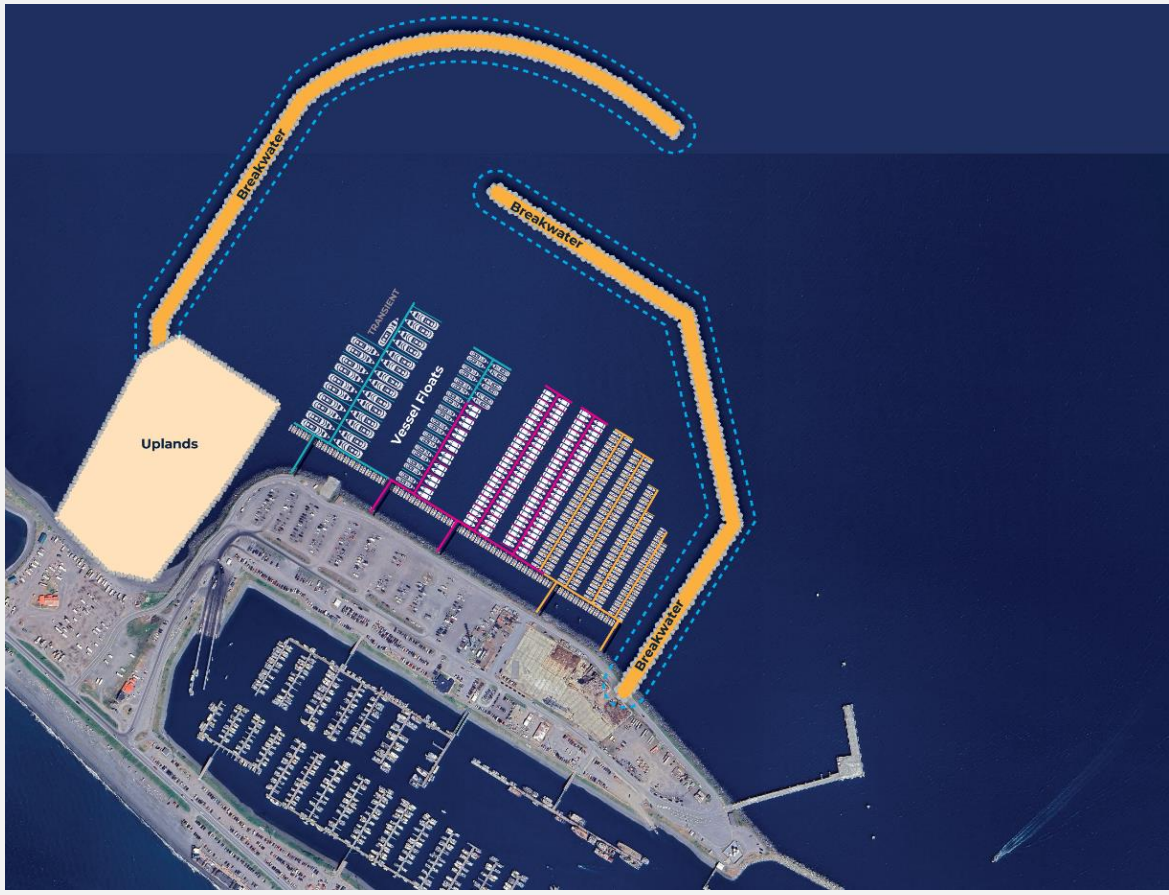
Alternative 3 features the largest footprint to meet current and likely future projected needs by:

- Containing all features from Alternative 2
- Adding extended uplands and floats

Accommodates modeled "likely" growth over the next 50 years.

Alternative 3 - Ideas 1 & 2





Large vessels - 100'-200'

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Small vessels - 24'- 40'

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What's Next

- Progress Update
- Alternatives Update
- **What's Next**
- Questions?

Milestone Dates

Task	Scheduled date	Notes
Tentatively Selected Plan	6/24/2025	Internal USACE Milestone
Release Draft Report	**9/01/2025 - 9/30/2025**	**30-Day Public Comment Period**
Agency Decision Milestone	March 2026	Internal USACE Milestone
District Final Report Submittal	September 2026	Internal USACE Milestone
Signed Chief's Report	January 2027	Study Complete

Progress Update

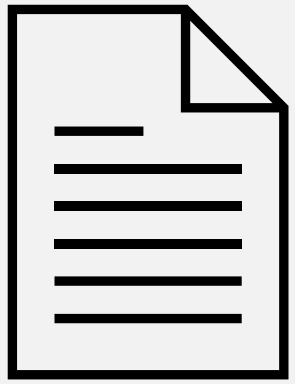
Alternatives Update

What's Next

Questions?

THANK YOU & Please Stay Involved

Scan the QR code below with your smartphone.



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