

Aquaculture Navigation Risk Assessment



Board of Port Commissioners
March 4, 2020

Approve a PSA with COWI in an amount of \$64,040:

- Aquaculture Navigation Risk Assessment for the VSE Project

RECOMMENDATION



BACKGROUND

Army Corps will process application for VSE project once:

- Navigational Risk Assessment is prepared
- Jurisdictional boundary resolved
 - District working cooperatively with Ventura LAFCo
 - State legislation introduced to resolve statutory conflict
 - AB 2370 Limón

BACKGROUND CONT'D

- District reached out to six firms
- Two provided formal proposals
- Interviewed by District & Dudek
- Both deemed responsive to regulatory requirements
- COWI representing the lower cost, more efficient approach

WHO IS COWI?

- COWI is well placed to undertake this work:
 - Strong track record in marine works
 - Vessel navigation risk studies both in the USA and around the world
- A leading consulting group:
 - Creates value for customers, people & society through their unique 360 approach
- Based on their world-class competencies within engineering, economics & environmental science:
 - Tackle challenges from many vantage points
 - Create coherent solutions for their customers & thereby sustainable & coherent societies in the world



OBJECTIVE

- Objectives for the Navigation Risk Assessment:
 - Developed based upon USCG procedures:
 - Navigation Safety Risk Assessment Tactics, Techniques, and Procedures (TTP)
 - Feedback from the initial project permit application
 - COWI's experience with similar studies



OBJECTIVES:

- Evaluate the level of potential risk of the proposed aquaculture project on commercial and recreational shipping;
- Evaluate the impacts of the proposed aquaculture project on commercial and recreation shipping;
- Analyze the impact to vessel traffic patterns and traffic constraints as a result of the proposed aquaculture;
- Identify potential mitigation measures that, if required, will reduce navigation risk associated with the aquaculture project.

APPROACH (Overview)

- COWI will undertake this study in a manner:
 - Recognizes the requirements & sensitivities of the planned aquaculture project...
 - While remaining independent & impartial





APPROACH (Details):

- Provide a review of USCG procedures for studying navigation risk, and provide a basis for the scope of this study
- Provide information on the vessel type and waterway use near the proposed aquaculture locations, including:
 - Type, size and drafts of vessel
 - Vessel routes
 - Traffic density
 - Seasonal vessel traffic variances
 - Notable marine events
- Present waterway characteristics, including prevailing weather conditions and bathymetry
- Discuss the risk of collision as a result of the aquaculture project, including:
 - Likelihood of collision between vessel and aquaculture
 - Likelihood of vessels propeller/rudder getting entangled in 'non-fixed' aquaculture lines
 - Increased likelihood of collision between vessels

APPROACH (Details):

- Discuss additional navigation considerations such as:
 - Increased waterway constraints
 - Impact on vessel anchoring
 - Effects of aquaculture on vessel radar and communications
 - Marine navigational markings
- Review the consequences of collision, both on the vessel and the aquaculture
- Discuss potential mitigation measures, if required



APPROACH (Details): NOAA

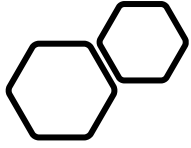
Final deliverable will be a standalone COWI report, with significant contribution from NOAA who will provide:

- Type, size & drafts of vessel
- Description of vessel routes
- Traffic density
- Seasonal vessel traffic variations
- Notable marine events in the area
- Prevailing wind directions & velocities (at 10m height), wind occurrence statistics & information on wind seasonality
- Current directions & velocities, current occurrence statistics & information on current seasonality
- Tidal heights, wave directors, wave occurrence statistics & information on wave seasonality
- Bathymetry relative to a given datum
- Sea fog & visibility



Deliverables

- COWI will present a Draft Report at a District Board meeting:
 - Target May 2020
 - Board, Stakeholder, Public comment
- Return to the Board with Final Report
 - Target May-June 2020
 - Board, Stakeholder, Public comment
- Submit Final Report to the USCG & Corps
 - Target June 2020



FISCAL IMPACT



The Board approved FY19-20 Mid-Year Budget on February 19, 2020:

\$75,000 for Navigational Risk Assessment



COWI's proposal is for \$64,040