

Cook Inlet Risk Assessment
Quarterly Project Report to Cook Inlet Regional Citizens Advisory Council

January 6, 2014

The goal of the risk assessment is to answer the following questions:

- What can go wrong?
- How likely is it?
- What are the impacts?
- Can the impacts be mitigated?

The risk assessment will examine the current types and sizes of vessels plying Cook Inlet and dominant accident types, and attempt to identify future oil spill risks based on vessel size, type and frequency. The first phase of the risk assessment will be limited to a semi-qualitative analysis. The study will rely primarily on historical data, expert opinion, and lessons learned from prior studies. Study results will provide a basis for the identification and initial ranking of risk reduction measures.

An update by project task is provided below. Project tasks are based on the original workplan.¹

Task 1- Provide for Project Communications

All project communication is directed through the project website at <http://www.cookinletriskassessment.com/index.html>. The website was activated in March 2011 and has been updated on an as needed basis since activation. (In December 2013 it was converted to Joomla for easier maintenance due to software changes with the previous program being used.) Private websites for the Management Team and Advisory Panel have also been updated on an as needed basis. The email contact list has been expanded to include individuals that have expressed an interest in being kept informed of the projects progress. Project newsletters were sent in February, March, April, July, August, and September, October, November, and December 2013.

Team members have made presentations on this project at the Alaska Forum on the Environment in Anchorage, AK and Clean Pacific in Long Beach, CA. This task is ongoing throughout the project.

Task 2- Facilitate and Provide Administrative Support to the Management Team and Advisory Panel

The first Advisory Panel meeting was held in Anchorage on October 20, 2011 with Management Team participation. The purpose of the meeting was to present

¹ http://www.cookinletriskassessment.com/documents/110426CIRADraftWorkPlan_rev2.pdf

administrative procedures and operations, orient the members to the project work plan and provide an overview of the draft Vessel Traffic Study. Meeting summaries are posted on the Project websites.

A second meeting of the Advisory Panel was held in Anchorage on April 23, 2012. The purpose of this meeting was to review the draft report from Task 4.

The third Advisory Panel meeting was held on February 20, 2013 in Anchorage. At this meeting, Advisory Panel members reviewed and refined the list of proposed risk reduction options.

Advisory Panel meetings are tentatively planned for April and June 2014 when the research and analysis is completed for the risk reduction options that required further consideration. Two webinars will complement these in-person meetings.

The Management Team continues to meet on an as-needed basis, most recently in August 2013 when they approved the workplan for the remainder of the project.

Task 3- Conduct a Traffic Study

Cape International Services² was sub-contracted to perform the vessel traffic study and began analysis of the AIS vessel traffic data during the 2nd quarter of 2011. A draft report was submitted to the Management Team and Advisory Panel at their first meeting in October. Following the October meeting, the report was released for public review and comment. The public comment period ended on November 30th. Comments and suggestions received were incorporated into the final report. This task was completed February 7, 2012. The final report can be downloaded at: <http://www.cookinletriskassessment.com/documents/120206CIVTSvFINAL.pdf>.

Task 4- Prepare a Baseline Spill and Accident Causality Study

The Glostén Associates³ was sub-contracted to perform this task and began reviewing data associated with the studies during the 4th quarter of 2011. A draft report was presented to the Advisory Panel and Management Team on April 23, 2012. The Advisory Panel members and public provided comments on the report. The final report was issued June 30, 2012 and posted on the project website at: http://www.cookinletriskassessment.com/documents/CIRC_Task4RiskAssessmentRptRev-29June2012.pdf

Task 5- Coordinate and Facilitate a Consequence Analysis Workshop

The Consequence Analysis Workshop was held in Anchorage on October 30-31, 2012. The meeting information is available online at: <http://www.nukaresearch.com/projects/cira/meetings.html>. Forty experts

² <http://www.capeinternationalservices.com/>

³ <http://www.glosten.com/>

participated in the workshop, representing a range of expertise and experience with Cook Inlet's wildlife, fisheries, subsistence resources, oceanography, spill response, shipping, salvage, ports, and other resources and features. This included 14 members of the Advisory Panel (including some alternates).

The Consequence Analysis Report was finalized with Management Team approval in February 2013 after extensive review by the subject matter experts, Advisory Panel, and public. It is posted on the project website at:

http://www.cookinletriskassessment.com/documents/130222_CIRA_CAWS_v1_lr.pdf

Task 6- Identify Risk Reduction Options

At a February 22 meeting in Anchorage, the Advisory Panel considered a list of 23 risk reduction options (RRO). Fifteen members of the Advisory Panel participated in the meeting, along with the Management Team and 16 members of the public or other organizations and agencies.

The facilitation team drafted descriptions of the risk reductions proposed for immediate or ongoing implementation. Additional research, sometimes informed by Advisory Panel members, was conducted to develop the descriptions. The risk reduction options are summarized in two separate but complementary documents:

- RROs for Immediate or Sustained Implementation (approved by Management Team after Advisory Panel review in early July 2013):
<http://www.cookinletriskassessment.com/documents/130708RROsforImmediateorSustainedImplementation.pdf>
- Analysis of RROs Requiring Further Consideration (contained within updated project work plan approved by Management Team in August 2013):
<http://www.cookinletriskassessment.com/documents/130814SummaryofWorkPlanforCIRAAug13-Sep14.pdf>

Task 7- Evaluate Risk Reduction Options

Additional research and analysis are underway for the risk reduction options that required further consideration:

- ***Towing Analysis.*** The Glostén Associates completed their analysis of the availability of tugs of opportunity and an assessment of the potential for a drifting vessel to self-arrest. Nuka Research will share this information with the Management Team and Advisory Panel and develop a summary and presentation of the tugs of opportunity data in January 2014.
- ***Construct Cross-Inlet Pipeline from Drift River to Nikiski.*** The Glostén Associates revised their estimate of the reduced probability of an oil spill based on reducing the number of tanker transits across the Inlet based on

input Nuka Research received from Capt. Jack Jensen of Tesoro (an Advisory Panel member).

Nuka Research has identified a method for developing a spill rate estimate from the proposed pipeline, but this requires additional information from the pipeline operator, which is being sought from Tesoro. A meeting was held with Tesoro to discuss data needs for the Benefit Cost Analysis, resulting in an agreement from the company to provide all information requested. The information was not yet received as of January 1, and follow-up requests will continue to be made.

- ***Enhance Situational Awareness by Transmitting Weather Information via AIS.*** Nuka Research prepared a preliminary list of interview/survey questions and summary materials for this task. However, the latest update from the Marine Exchange of Alaska indicates that most vessels' AIS software does not support receipt of the broadcasts. This task may require re-direction from the Management Team, as the plan to evaluate the effectiveness of the weather broadcasts cannot be implemented until mariners are actually receiving the broadcasts. Follow-up with the Management Team will be conducted accordingly.
- ***Improve Ice Monitoring Capability.*** Research will be conducted to determine the best way to improve upon the ice monitoring procedures already established in Cook Inlet. The University of Alaska-Fairbanks conducted an ice-monitoring study in the Beaufort Sea using a Furuno radar; the next step will be to learn what equipment they have used, for what purpose, and how well it worked. In addition, the project team will be contacting Buccaneer Alaska LLC who's considering setting up a Sigma-6 ice radar near Anchor Point, Cook Inlet to monitor ice in the south-central location, which is typically the southern extent for ice in the Inlet.
- ***Encourage Third Party Inspections or Audits of Workboats.*** Nuka Research developed a summary of how voluntary safety management systems are implemented and a set of survey questions and survey recipients based on operators in Cook Inlet. The survey will be implemented in January/February and the results summarized in March.

In addition, the Management Team approved the Facilitation Team to take the first steps on RROs that were identified for immediate or sustained implementation:

- ***Launch Harbor Safety Committee for Cook Inlet.*** Pearson Consulting developed a preliminary process for the establishing a Harbor Safety Committee, in coordination with CIRCAC. During the 1st quarter of 2014 the following will be initiated:
 - Process of interviewing key players to establish the goals/objective and potential participants;

- Identifying existing local/regional committees (ad hoc and formal) whose purpose is to identify and recommend actions to improve the safety, security, mobility and environmental protection of a port or waterway;
 - Evaluate the composition of representatives on the existing local/regional committees and potential need to expand or contract stakeholder composition.
- ***Update Coast Pilot.*** A webinar will be held in the winter of 2013-2014 to provide an opportunity for input to the Coast Pilot maintained by the National Oceanic and Atmospheric Administration (NOAA).
 - ***Update AWOIS databases.*** A webinar will be held in the winter of 2013-2014 to provide an opportunity for input to NOAA's database of subsea infrastructure.
 - ***Ice monitoring demonstration project.*** Depending on the results of the research into options to enhance ice monitoring, a demonstration project may be implemented to test new technology or current ice monitoring methods may be enhanced.

Task 8- Prioritize Risk Reduction Options and Prepare Phase I Final Report

This task will be conducted after Task 7. The outline for the final report is in draft form.