

Cook Inlet Risk Assessment
Annual Project Report

October 1, 2013

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. 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 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 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.

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

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 participated in the workshop, representing a range of expertise and experience with Cook Inlet's wildlife, fisheries, subsistence resources, oceanography, spill response,

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

³ <http://www.glosten.com/>

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.

In preparation for the meeting, the Project Team compiled a list of 23 potential risk reduction options from a public solicitation process (December 2012 – February 2013), the Coast Guard Authorization Act of 2010 (providing funding for this project), and two previous studies (the Cook Inlet Safety of Navigation Forum in 1999 and the Ports and Waterways Safety Assessment of 2000). During the meeting, four additional RRO were suggested by Advisory Panel members.

The Advisory Panel discussed each RRO to ensure that all participants shared the same *basic* understanding of what it meant, what it was intended to do, whether it was feasible, and whether it fit within the purview of this group and the current legal scheme. Based on this discussion, the Advisory Panel agreed on: (1) RROs that merit further consideration, (2) RROs that should be implemented immediately (or are being implemented already), and (3) RROs that should be excluded from further consideration in this project.

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:

- **Task B-1. Towing Analysis.** The Glostén Associates was contracted to conduct an analysis of the availability of tugs of opportunity to control a deep draft vessel that has lost steering or propulsion. The necessary AIS data was purchased from the Alaska Marine Exchange in September and will be transferred to The Glostén Associates in October (currently the data includes the location of *all* vessels with AIS in the Inlet; it needs to be pared down to show only towing capable vessels).
- **Task B-2. Construct Cross-Inlet Pipeline from Drift River to Nikiski.** The Glostén Associates and Northern Economics, Inc. were contracted to provide support on this task. The Glostén Associates estimated the reduced probability of an oil spill based on reducing the number of tanker transits across the Inlet. Nuka Research will estimate the potential increased probability of a spill from the proposed pipeline by the end of October. Northern Economics, Inc. will use this information to conduct a benefit-cost analysis.
- **Task B-3. Enhance Situational Awareness by Transmitting Weather Information via AIS.** Nuka Research will work with the Marine Exchange of Alaska and Alaska Ocean Observing System (AOOS) to understand how a new weather-transmitting system installed in Homer is working and gain information from different perspectives (including mariners) about how the protocols developed (frequency of transmission, length and nature of transmission, etc.) are working and how the information is being applied. Initial conversations have taken place with the project partners.
- **Task B-4. 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 has ice-monitoring experience; the next step will be to learn what equipment they have use, for what purpose, and how it has worked.
- **Task B-5. Encourage Third Party Inspections or Audits of Workboats.** Operators in Cook Inlet will be surveyed to determine the type and frequency of audits (if any), why operators do or do not choose to use an audit program, which one they use (if any) and why, problems they have encountered in implementing such a program in the past, and any barriers to the use of such programs with incentives or suggestions that would overcome these barriers. Beyond initial scoping, work has not yet started on this sub-project.

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 a Harbor Safety Committee.** The Cook Inlet Regional Citizens Advisory Council has agreed to house a Harbor Safety Committee (HSC).

Nuka Research identified an opportunity for someone representing this entity to participate in a meeting of West Coast HSCs at the end of October; arrangements are being made.

- **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.