

Cook Inlet Risk Assessment  
Quarterly Project Report

April 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.

The following list the key milestones for the project by Task as described in the work plan.<sup>1</sup>

***Task 1- Provide for Project Communications***

All project communication continues to be 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 was expanded by adding individuals that have expressed an interest in being kept informed of the projects progress. Beginning in February 2013, monthly project newsletters have been sent to the entire contact database.

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 of which the Management Team members attended. The purpose of the meeting was to present administrative procedures and operations, orient the members to the

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<sup>1</sup> [http://www.cookinletriskassessment.com/documents/110426CIRADraftWorkPlan\\_rev2.pdf](http://www.cookinletriskassessment.com/documents/110426CIRADraftWorkPlan_rev2.pdf)

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. The purpose of this meeting was to review and refine the list of proposed risk reduction options.

The Management Team continues to meet on an as-needed basis; in the first quarter of 2013, this included two teleconferences.

### ***Task 3- Conduct a Traffic Study***

Cape International Services<sup>2</sup> was sub-contracted to perform the study and began analysis of the AIS vessel traffic data during the 2<sup>nd</sup> Qtr. 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 30<sup>th</sup>. 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***

Glosten Associates<sup>3</sup> was sub-contracted to perform this task and they began reviewing data associated with the studies during the 4<sup>th</sup> quarter of 2011. Research and analysis associated with this task has been completed. 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.

### ***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, oceanography, spill response, shipping, salvage, ports, and other areas. This included 14 members of the Advisory Panel (including some alternates).

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

<sup>3</sup> <http://www.glosten.com/>

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.

### **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.

More detailed descriptions of the RROs the Advisory Panel found meriting further consideration or immediate action will be developed for subsequent review, discussion, and evaluation.

#### **1. RROs that merit further consideration at this time**

- Enhance vessel monitoring, situational awareness, and communications through application of Automatic Identification System (AIS) technology, 2-way communications via AIS, and sharing weather observation from ships and other sources
- Enhance current navigational charts, current gauges, and the Coast Pilot
- Improve ice monitoring capabilities
- Increase rescue towing capability
- Encourage harbors to notify USCG if they deem a vessel unseaworthy
- Construct cross-Inlet pipeline from Drift River to Nikiski
- Map sub-sea infrastructure (both abandoned and active)
- Encourage alternate inspections or audits for workboats

#### **2. RROs that should be implemented immediately, or are being implemented already**

- Continue to improve of crew training, bridge team management, and communications.
  - Continue to improve winter ice rules and guidelines
  - Establish a Harbor Safety Committee to promote implementation of RROs and support ongoing improvement of safety by the maritime community
  - Improve Subarea Oil and Hazardous Substance Contingency Plan
  - Ask the federal government to promulgate final regulations requiring vessel response plans for non-tank vessels (USCG)
  - Seek continuous improvements in spill response equipment that is appropriate for Cook Inlet conditions
  - Maintain project depth in Cook Inlet, especially at Knik Arm Shoal through dredging
  - Improve cell coverage on marine waters in Cook Inlet
- 3. RROs that should be *excluded* from further consideration**
- Traffic Separation Scheme (TSS) and Vessel Tracking Service (VTS)
  - Establish International Maritime Organization (IMO) Particularly Sensitive Sea Area (PSSA)
  - Satellite tracking of vessels
  - Long-range identification and tracking system (LRIT)
  - Improve aids to navigation
  - Remove out-of-service platforms and subsea pipelines
  - Place quick-release mooring line hooks at the Port of Anchorage
  - Position/pre-approve use of Oil Spill Eater Product

***Task 7- Evaluate Risk Reduction Options***

Nuka Research and Pearson Consulting began the process of summarizing the risk reduction options for further consideration; the next step is to develop workplans for the additional analysis that will be needed and seek approval from the Management Team.

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

This task will be conducted after Task 7.