

**Consent Item Briefing for PWSRCAC Board of Directors – September 2021**

**ACTION ITEM**

**Sponsor:** Danielle Verna, Austin Love and the Scientific Advisory Committee

**Project number and name or topic:** 9512 – Determining Concentration and Composition of Oxygenated Hydrocarbons from the VMT

1. **Description of agenda item:** This agenda item requests Board approval of a contract with the University of New Orleans to complete the scope of work for the project Determining Concentration and Composition of Oxygenated Hydrocarbons from the Valdez Marine Terminal (VMT), as presented and approved by the Board in the FY2022 budget. This project is planned to be a sole source contract with the University of New Orleans given their experience and expertise related to the field of oxygenated hydrocarbons. This project is tentatively planned to take place from October 2021 to May 2023 pending support and coordination from Alyeska.

2. **Why is this item important to PWSRCAC:** This project will enable the Council to monitor “the environmental impacts of the operation of the terminal facilities and crude oil tankers” as directed by OPA 90 by assessing the type and amount of oxygenated hydrocarbons that are discharged from the Ballast Water Treatment Facility (BWTF). Tankers offload ballast water carried in cargo tanks to the BWTF for treatment prior to discharge into Port Valdez. Preliminary research conducted in 2016/2017 indicates that oxygenated hydrocarbons are a component of that discharge. Oxygenated hydrocarbons are as toxic or more toxic than non-oxygenated hydrocarbons but there has been much less research on the fate, transport, and toxicity of oxygenated hydrocarbons. The findings from this project may be used to inform treatment of oil contaminated water and in-situ monitoring strategies. Furthermore, the results and recommendations of this project could set the stage for future research on the environmental effects of oxygenated hydrocarbons.

3. **Previous actions taken by the Board on this item:**

<u>Meeting</u>	<u>Date</u>	<u>Action</u>
Board	May 21, 2021	FY2022 Budget Approval: The Board approved the FY2022 budget as presented in the draft dated May 12, 2021, which included funding for the Oxygenated Hydrocarbons project.

4. **Summary of policy, issues, support or opposition:** This project will require coordination and cooperation from Alyeska. Staff and the contractor intend to collect 12-18 samples from the Ballast Water Treatment Facility at the VMT over a period of up to 12 months. At this meeting, staff Danielle Verna and Austin Love will present a status update to the Board on discussions with Alyeska to obtain their support for this project. The

**REVISED BRIEFING**

**Contract Approval: Oxygenated Hydrocarbons Contract Approval 3-1**

presentation will include a brief overview of the goals and sampling strategy for this project and a summary of past work conducted by the Council where samples were collected from the BWTF.

5. **Committee Recommendation:** The Scientific Advisory Committee supports the approval of this contract with the University of New Orleans and recommends obtaining support from Alyeska before entering into a contract.

6. **Relationship to LRP and Budget:** Project 9512 is in the approved FY2022 budget and annual workplan.

**9512--Oxygenated Hydrocarbons  
As of July 31, 2021**

**FY-2022 Budget**

Original	\$70,400.00
Modifications	
Revised Budget	<u>\$70,400.00</u>

**Actual and Commitments**

Actual Year-to-Date	
Commitments (Professional Services)	
Actual + Commitments	<u></u>
Amount Remaining	<u>\$70,400.00</u>

7. **Action Requested of the Board of Directors:** Authorize a contract with the University of New Orleans for project 9512, Determining Concentration and Composition of Oxygenated Hydrocarbons from the VMT, in an amount not to exceed \$70,400.

8. **Alternatives:** None.

9. **Attachments:** FY2022 Budget Briefing for this project.

**Prince William Sound Regional Citizens' Advisory Council  
Budget Briefing Sheets FY-2022**

Type:

- Capital project (separate capital projects checklist required)  
 Program       Protected  
 Project       Protected  
 Program/Project Support

Project Number: 9512

Project Title: Determining the Concentration and Chemical Composition of Oxygenated Hydrocarbons Released from the Valdez Marine Terminal

Lead Staff: Danielle Verna

Project Team Members: Scientific Advisory Committee

Cross Committee Interest: TOEM Committee

1. Description

- a. This project will investigate the chemical composition and concentration of oxygenated hydrocarbons that are released from the Valdez Marine Terminal's Ballast Water Treatment Facility into the marine waters of Port Valdez.
  - b. Oxygenated hydrocarbons are oil molecules with an oxygen atom attached to them, and they have been shown to be as toxic or more than their non-oxygenated counterparts. However, much less research has been done to understand the fate, transport, and toxicity of oxygenated hydrocarbons compared to non-oxygenated hydrocarbons. The Ballast Water Treatment Facility treats oily water from tanker ships and other sources at the Valdez Marine Terminal before discharging the treated water into Port Valdez. Currently, state water quality regulations only govern the discharge of non-oxygenated hydrocarbons. Oxygenated hydrocarbons are not regulated because research pertaining to these toxic oil byproducts is scarce. From preliminary research, oxygenated hydrocarbons are known to be discharged from the Ballast Water Treatment Facility. By more thoroughly investigating the chemical concentration and composition of oxygenated hydrocarbons from the Ballast Water Treatment Facility, this project will improve our limited understanding of what types and how much oxygenated hydrocarbons are being discharged from the terminal into Port Valdez.
  - c. Information from this project could lead to better treatment of oil contaminated water and environmental monitoring strategies. The results from this project will be shared with the Council, industry and regulatory stakeholders, and the public via a comprehensive report of the findings and future research recommendations. The results will be submitted to a peer-reviewed journal for publication.
  - d. The success of this project will be measured by the delivery of a report to the PWSRCAC Board and ex-officio members, and by the submission of peer-reviewed journal article pertaining to the findings of this research project.
2. Program/project goals and objectives [Should be clear, specific, and measurable with starting and ending dates.]

- a. Collect water samples from the various points throughout the Ballast Water Treatment Facility and Port Valdez on a monthly basis (August 2021 – March 2022)
  - b. Analyze chemical composition and concentration of oxygenated hydrocarbons in collected water samples (August 2021 – April 2022)
  - c. Report results and future research and monitoring recommendations to the Board of Directors and ex-officio members (September 2023)
3. Strategic plan and mission
- a. This project would support the Council’s strategic goal to “Continue to improve environmental safety of oil transportation in our region” by the objective to “Promote and facilitate effective research for scientific, operational and technical excellence.”
  - b. This project will provide new information about understudied and little understood byproducts of crude oil contamination and oxygenated hydrocarbons. These byproducts may pose significant risks to the environment. Oxygenated hydrocarbons are released from the Valdez Marine Terminal’s Ballast Water Treatment Facility but have never been chemically analyzed before. Therefore, information from this project will help the Council achieve its mission, to promote the safe transportation of oil in Prince William Sound, by providing new information about potentially harmful chemicals being discharged from the terminal’s Ballast Water Treatment Facility, and that information could be used to inform future recommendations to reduce the introduction of oxygenated hydrocarbons into Port Valdez.
  - c. This project would address the OPA 90 requirement to monitor “the environmental impacts of the operation of terminal facilities and crude oil tankers.” This project would address the Alyeska contract stipulation to “Provide local and regional input, review and monitoring of Alyeska’s oil spill response and prevention plans and capabilities, environmental protections capabilities, and the actual and potential environmental impacts of the terminal and tanker operations.”
4. Project Implementation
- a. An outside contractor will mostly complete this project. Specifically, professors and graduate students from the University of New Orleans will conduct the bulk of the work. PWSRCAC staff may complete some of the work needed. For example, PWSRCAC staff may participate in or conduct the water sampling over at the terminal and in Port Valdez. The possibility of PWSRCAC staff conducting the sampling will be discussed with the University of New Orleans researchers. It is estimated that 50 hours of Council, project manager time would be needed to support the work by the University of New Orleans.
  - b. This project will not require shipper cooperation, but it will require Alyeska cooperation to obtain water samples from the Valdez Marine Terminal’s Ballast Water Treatment Facility. Additionally, Alyeska and USCG cooperation would be needed to collect water samples from Port Valdez within the terminal’s security zone. Alyeska has been cooperative in the past when the Council had projects in which water samples from the Ballast Water Treatment Facility were needed. Typically, those water samples were gathered in a relatively short amount of time (e.g. on one day or within one month). This project proposes to gather regular samples over a period of eight months so it will be very important to communicate that with Alyeska and work out a plan with them to make that happen effectively. Additionally, it may be necessary to get a long-term permit from the USCG to enter the security zone to collect water samples – the USCG issued a similar permit to the Council for work pertaining to the April 12, 2020 oil spill

from the terminal. However, perhaps the Port Valdez water samples could be obtained off a terminal structure like Berth 3 instead of from a boat. This would eliminate the need for a USCG security zone permit, so that sampling possibility will be considered.

- c. This is not an ongoing project, but it is expected to be carried out over two fiscal years, 2022 and 2023. The water sampling and analytical chemistry work would be done in FY 2022, while the final report and presentation to the Board would be finished in FY 2023.
- d. This project does not involve cost sharing or partnerships with other organizations. However, it would be beneficial, but not necessary, to execute this project at the same time as another potential Council project – the Toxicity of Treated Ballast Water Effluent to Copepods: Implications for Food Webs in Prince William Sound project. These two projects could share water samples collected from the terminal and data that would be mutually beneficial.

5. Budget

- a. In FY 2022, the total costs of this project would be \$70,400.00 in contract expenses for services provided by the University of New Orleans to complete the objectives of this project. That budget estimate was provided by University of New Orleans researchers and could be subject to change based on negotiations between them and PWSRCAC before a final contract is agreed upon. The contract with the University of New Orleans would be a sole source contract.
- b. No money was previously spent on this project.

## Budget

Account #	Account Title	FY-2022	FY-2023	FY-2024
50000	Salaries and Wages			
50100	Employer Payroll Taxes			
50500	Rents			
50600	Utilities—Telephone and Fax			
50650	Conference Calls			
50700	Supplies (consumable)			
50800	Equipment Leases			
50850	Software			
50900	Internet & E Mail Access			
51000	Equipment Purchases			
51100	Dues and Subscriptions			
51200	Accounting			
51300	Legal Fees			
51400	Contract Labor			
51450	Professional Fees -- Other			
51600	Advertising			
51700	Education			
51800	Printing & Reproduction			
51900	Postage & Delivery			
52300	Conference & Conventions			
52400	Equipment Maintenance			
53000	Insurance			
54000	Library & Reference Materials			
58000	Depreciation & Amortization			
59000	Miscellaneous			
59500	Contracts	\$70,400.00		
60000	Travel			
61000	Business Meals			
62000	Meeting Expenses			
	Total	\$70,400.00		

**Prince William Sound Regional Citizens' Advisory Council  
One-Page Strategic Plan**

**Mission Statement:** Citizens promoting the environmentally safe operation of the Alyeska terminal and associated tankers

[Link to full FY2020-FY2024 Long Range Strategic Plan](#)

**Core Purpose:** Citizen oversight to prevent oil spills, minimize environmental impacts, and promote response readiness

**Core Values**

- The foundation of PWSRCAC is volunteerism
- Promote vigilance and combat complacency
- Organizational transparency and integrity through truth and objectivity
- Foster environmental stewardship
- Represent the interests of our stakeholders by providing an effective voice for citizens

**Overarching Goals and Objectives** (see pages 14-16 for a more complete list of objectives)

- Compliance with OPA90 and Alyeska contractual requirements.
  - (1) Annual re-certification and funding
  - (2) Maintain regional balance
  - (3) Link projects and programs to OPA90 and Alyeska contract
- Continue to improve environmental safety of oil transportation in our region.
  - (4) Monitor and review development of, and compliance with, laws and regulations
  - (5) Pursue risk-reduction measures and promote best available technologies and best practices
  - (6) Monitor operations and promote a safe and clean marine terminal
  - (7) Monitor and review the condition of the tanker fleet/maritime operations
  - (8) Monitor and promote the safe operation of all Alyeska/SERVS-related on-water assets
  - (9) Monitor and review environmental indicators
  - (10) Promote and facilitate effective research for scientific, operational and technical excellence
- Develop and maintain excellent external and internal communication.
  - (11) Advocate for government and industry measures to improve the environmental safety of oil transportation
  - (12) Maintain and improve relationships with government, industry and communities
  - (13) Be the model for citizen oversight and provide support for other citizens' advisory groups
  - (14) Ensure availability of PWSRCAC information
  - (15) Work to improve availability of information to PWSRCAC from industry sources
- Achieve organizational excellence.
  - (16) Effective short and long term planning, with clear and measurable goals for projects
  - (17) Fiscally responsible, efficient, and easily understood financial procedures and reporting
  - (18) Committed to continuous improvement
  - (19) Recognize people as the most important asset of the organization
  - (20) Recruit and develop knowledgeable, involved, and interested people as Board members, volunteers, and staff
  - (21) Strong volunteer structure and support for volunteers

## OPA 90 and Alyeska Contractual Requirements

PWSRCAC's structure and responsibilities stem from the Oil Pollution Act of 1990 (OPA 90) and our contract with Alyeska Pipeline Service Company (Alyeska). These documents guide our organization and it is important to review the following requirements, and if possible the source documents, when developing proposed projects for Board consideration and approval. Following are abbreviated summaries of some of the major requirements from both documents. Please check the box next to each requirement that the proposed project addresses.

[Link to full text of OPA 90 Sec 5002: Terminal and Tanker Oversight and Monitoring, August 18, 1990](#)

[Link to full text of contract between PWSRCAC and Alyeska, February, 1990](#)

### OPA 90 Contractual Requirements

- (1) Regional Balance, broadly representative of communities and interests in the region.
- (2) Provide advice to regulators on the federal and state levels.
- (3) Provide advice and recommendations on policies, permits, and site-specific regulations relating to the operation and maintenance of terminal facilities and crude oil tankers.
- (4) Monitor the environment impacts of the operation of terminal facilities and crude oil tankers, as well as operations and maintenance that affect or may affect the environment in the vicinity of the terminal facilities.
- (5) Review the adequacy of oil spill prevention and contingency plans for the terminal facilities and crude oil tankers operating in Prince William Sound and review the plans in light of new technological developments and changed circumstances.
- (6) Provide advice and recommendations on port operations, policies, and practices.
- (7) Conduct scientific research and review scientific work undertaken by or on behalf of the terminal or oil tanker operators or government entities.
- (8) Devise and manage a comprehensive program of monitoring the environmental impacts of the operations of the terminal facility and crude oil tankers.
- (9) Monitor periodic drills and testing of oil spill contingency plans.
- (10) Study wind and water currents and other environmental factors in the vicinity of the terminal that may affect the ability to prevent, respond to, contain, and clean up an oil spill.
- (11) Identify highly sensitive areas that may require specific protective measures.
- (12) Monitor developments in oil spill prevention, containment, response, and cleanup technology.
- (13) Periodically review port organizations, operations, incidents, and the adequacy and maintenance of vessel traffic service systems designed to ensure safe transit of crude oil tankers pertinent to terminal operations.
- (14) Periodically review the standards for tankers bound for, loading at, exiting from, or otherwise using the terminal facilities.
- (15) Foster partnerships among industry, government, and local citizens.

### Alyeska Contractual Requirements

- (1) Provide local and regional input, review and monitoring of Alyeska's oil spill response and prevention plans and capabilities, environmental protections capabilities, and the actual and potential environmental impacts of the terminal and tanker operations.
- (2) Increase public awareness of subjects listed above.
- (3) Provide input into monitoring and assessing the environmental, social, and economic consequences of oil related accidents and actual or potential impacts in or near Prince William Sound.
- (4) Provide local and regional input into the design of appropriated mitigation measures for potential consequences likely to occur as a result of oil or environmental related accidents or impacts of terminal and tanker operations.
- (5) Provide recommendations and participate in the continuing development of the spill prevention and response plan, annual plan review, and periodic review of operations under the plan including training and exercises.
- (6) Other concerns: comment on and participate in selection of research and development projects.
- (7) Review other important issues related to marine oil spill prevention and response concerns that were not obvious with the contract was signed.
- (8) Review other concerns agreed upon by the Council regarding actual or potential impacts of terminal or tanker operations.