

## Prince William Sound Regional Citizens' Advisory Council

Board of Directors Meeting May 4-5, 2023

Zoom link for meeting audio and presentations <https://pwsrcac.zoom.us/j/89373261330>

Or participate via teleconference: 1-888-788-0099 Meeting ID: 893 7326 1330

### Final Agenda

#### Thursday, May 4, 2023

- 8:15 A Call to Order & Roll Call
- Welcome – President Robert Archibald
  - Statement from President Archibald on the release of the Council report "Assessment of Risks and Safety Culture at Alyeska's Valdez Marine Terminal" by Billie Pirner Garde
  - Introductions/Director reports on activities since the last meeting
- 8:25 B 1-0 Approve Agenda
- 8:30 C 4-1 PWSRCAC Director Appointments
- 8:35 D 1-1 Approve Minutes of January 26-27, 2023, Regular Board Meeting  
1-2 Approve Minutes of March 14, 2023, Special Board Meeting
- 8:40 E Public Comment Period, limit five minutes per person
- 8:55 F Discussions with John Kurz, Alyeska President
- 9:10 G Internal Opening Comments (*Please limit to general information not contained in Agenda*)
- Technical Committee Updates (SAC, IEC, OSPR, TOEM, & POVTS)
  - PWSRCAC Board Sub Committee Updates (Legislative, Governance & Finance)
- 9:35  BREAK
- 9:45 H Alyeska / SERVS Activity Report
- 10:45  BREAK
- 10:55 I External Opening Comments (*Please limit to general information not contained in Agenda*)
- PWSRCAC Ex-Officio Members
  - Trans Alaska Pipeline System Shippers, Owner Companies, and Pilots
- 12:00  BREAK –lunch provided for those at the meeting.
- 1:00 J PWSRCAC Volunteer Recognition – Robert Archibald & Donna Schantz
- 1:10 K Approval of FY2024 Budget – Ashlee Hamilton
- 1:40 L Consent Agenda
- 3-1 Approval of Resolution Designating PWSRCAC Check Signers
  - 3-2 Approval of FY2024 LTEMP Contract Authorization
  - 3-3 Approval of FY2024 Marine Invasive Species Survey Analysis Contract Increase
  - 3-4 Annual Technical Committee Member Appointment
  - 3-5 Approval of FY2023 Contingency Plan Contractor Pool
  - 3-6 Approval of PWSRCAC/Alyeska Contract Compliance Verification Report
- 1:45 M 4-2 Review of ADEC's Changes to Article 4 Regulatory Update – Linda Swiss
- 2:30  BREAK
- 2:45 N Nomination of Officers & Executive Committee Members-at-Large
- 2:55 O 4-3 Report Acceptance: LTEMP Transcriptomics – Austin Love with Dr. Lizbeth Bowen of USGS
- 3:25 P 4-4 Report Acceptance: 2019 Alaska North Slope Crude Oil Properties – Austin Love with Dr. Merv Fingas of Spill Science
- 4:00 Q 4-5 Sustainable Shipping Phase I – Regulatory Mandate Review – Alan Sorum with Sierra Fletcher of Nuka Research & Planning Group, LLC.
- 4:30  RECESS

Shaded Items Require Board Action

**Anyone experiencing COVID 19 symptoms should not attend this meeting in person.**



Agenda may change without prior notice

Times are provided as a guideline only

Councils' public proceedings are routinely recorded and may be disseminated to the public by PWSRCAC or the news media

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

**Friday, May 5, 2023**

9:00	A	Call to Order & Roll Call
9:10	B	Election of Officers & Executive Committee Members-at-Large <i>(results to be announced after the morning break)</i>
9:20	C	4-6 Federal & State Government Affairs Update – Joe Lally with Gene Therriault & Roy Jones
9:55	D	4-7 Report Acceptance: 2022 Drill Monitoring Annual Report – Roy Robertson
10:30		<b>BREAK</b>
10:45	E	4-8 Community Outreach Annual Report – Maia Draper-Reich
11:25	F	4-9 Annual Board Committee Appointments – Donna Schantz
11:45	G	4-10 Annual Board Required Document Completion – Ashlee Hamilton
12:00		<b>LUNCH</b> <i>lunch provided for those at the meeting.</i>
1:00	H	4-11 POVTS Tanker Speed Reduction Operational Review – Alan Sorum and Steve Lewis, POVTS Chair
1:20	I	President’s Report to the Board
1:30	J	Executive Director’s Report to the Board
1:40	K	Financial Manager’s Report to the Board
1:50	L	Consideration of Consent Agenda Items
2:00	M	Closing Comments
2:15	N	ADJOURN

Shaded Items Require Board Action

Additional items provided for information only:

- PWSRCAC Name Roster *(Board Members only)*
- PWSRCAC Expense Reimbursement Form
- 2-1 List of Commonly Used Acronyms
- 2-2 Budget Status Report
- 2-3 Director Attendance Record
- 2-4 Committee Member Attendance Record
- 2-5 List of Board Committee Members
- 2-6 PWSRCAC One-Page Strategic Plan
- 2-7 List of Board and Executive Committee Actions
- 2-8 PWSRCAC Organizational Chart
- 5-1 May 2023 Program/Project Status Report

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

**PRINCE WILLIAM SOUND  
REGIONAL CITIZENS' ADVISORY COUNCIL  
MINUTES  
REGULAR BOARD MEETING  
January 26 and 27, 2023  
Anchorage, Alaska**

**Members Present**

Robert Archibald	City of Homer
Amanda Bauer	City of Valdez
Robert Beedle <i>(via videoconference)</i>	Cordova District Fishermen United
Mike Bender <i>(via videoconference)</i>	City of Whittier
Nick Crump	Prince William Sound Aquaculture Corporation
Ben Cutrell	Chugach Alaska Corporation
Wayne Donaldson	City of Kodiak
Mako Haggerty	Kenai Peninsula Borough
Luke Hasenbank	Alaska State Chamber of Commerce
Jim Herbert	Temporary Recreation Seat
David Janka	City of Cordova
Melvin Malchoff <i>(via videoconference)</i>	Port Graham Corporation
Dorothy Moore <i>(via videoconference)</i>	City of Valdez
Bob Shavelson	Oil Spill Regional Environmental Coalition
Angela Totemoff	Tatitlek Corporation & Tatitlek Village IRA Council
Michael Vigil	Chenega Corporation & Chenega IRA Council
Aimee Williams	Kodiak Island Borough
Kirk Zinck	City of Seldovia

**Members Absent**

Patrick Domitrovich	City of Seward
Elijah Jackson	Kodiak Village Mayors Association

**Committee Members Present**

Savannah Lewis <i>(via videoconference)</i>	IE Committee
Ruthie Knight	IE Committee
Cathy Hart	IE Committee
Steve Lewis <i>(via videoconference)</i>	POVTS Committee
Max Mitchell	POVTS Committee
Mikkel Foltmar	TOEM Committee
Davin Holen <i>(via videoconference)</i>	SA Committee
John Kennish <i>(via videoconference)</i>	SA Committee

**Staff Members Present**

Donna Schantz	Executive Director
Joe Lally	Director of Programs
KJ Crawford	Director of Administration
Brooke Taylor	Director of Communications
Ashlee Hamilton	Financial Manager
Danielle Verna	Project Manager
Roy Robertson	Project Manager
Linda Swiss	Project Manager
Austin Love	Project Manager
Jeremy Robida	Project Manager
Alan Sorum	Project Manager
Amanda Johnson	Project Manager
Maia Draper-Reich	Outreach Coordinator
Nelli Vanderburg	Project Manager Assistant
Hans Odegard	IT Coordinator
Jaina Willahan	Administrative Assistant

**Ex Officio Members Present**

Allison Natcher	Alaska Dept. of Environmental Conservation
Lee McKinley	Alaska Dept. of Fish & Game
Lisa Fox	U.S. Department of the Interior
Reid Olson	Bureau of Land Management
Pete Johnson	Alaska Dept. of Natural Resources
Mary Goolie	U.S. Environmental Protection Agency
CDR Patrick Drayer <i>(via videoconference)</i>	USCG MSU Valdez
Scott Pegau	Oil Spill Recovery Institute

**Others Present**

Mike Day	Alyeska Pipeline Service Company
Kate Dugan <i>(via videoconference)</i>	Alyeska Pipeline Service Company
Diana Bouchard <i>(via videoconference)</i>	Alyeska Pipeline Service Company
Alyssa Sweet <i>(via videoconference)</i>	Alyeska Pipeline Service Company
Tiffany Larson	Alaska Dept. of Environmental Conservation
Rebecca Spiegel	Alaska Dept. of Environmental Conservation
Graham Wood	Alaska Dept. of Environmental Conservation
Melissa Woodgate <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Anna Carey <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Mo Radotich <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Dianne Munson <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Kimberley Maher <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Zuzana Culakova <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation

Sarah Moore <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Kara Kusche <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
James Merrill <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Jade Gamble <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Jenny Benda <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Sam Saengsudham <i>(via videoconference)</i>	Alaska Dept. of Environmental Conservation
Eileen Oliver <i>(via videoconference)</i>	Bureau of Land Management
Rob Kinnear	Hilcorp Alaska
Angelina Fuschetto <i>(via videoconference)</i>	Crowley Alaska Tankers
Andrea West	Polar Tankers
LCDR Hadley Owen	NOAA Office of Coast Survey
Ian Maury <i>(via videoconference)</i>	Southwest Alaska Pilots Association (SWAPA)
Joe Levesque	Levesque Law Group
Cheryl McKay	Levesque Law Group
Roy Jones <i>(via videoconference)</i>	PWSRCAC legislative monitor (Federal)
Gene Therriault	PWSRCAC legislative monitor (State)
Elise DeCola <i>(via videoconference)</i>	Nuka Research & Planning Group, LLC
Natalie Kiley-Bergen	Council Graduate Student
Jeff Samuels <i>(via videoconference)</i>	Alaska Travel Industry Association
Matthew Melton	International Bird Rescue
Rick Steiner	Oasis Earth
Ron Britton <i>(via videoconference)</i>	U.S. Forest Service
Dr. Craig Benson <i>(via videoconference)</i>	Council independent contractor
Dr. Rob Campbell	Prince William Sound Science Center

**Thursday, January 26, 2023**

**CALL TO ORDER, WELCOME, AND INTRODUCTIONS**

A regular meeting of the Board of Directors of the Prince William Sound Regional Citizens' Advisory Council was held January 26 and 27, 2023, at the Embassy Suites Hotel, Anchorage, Alaska. President Robert Archibald called the meeting to order at 8:30 a.m. on January 26, 2023.

A roll call was taken. The following 13 Directors were present at the time of the roll call, representing a quorum for the conduct of business: Archibald, Bauer, Beedle, Crump, Cutrell, Donaldson, Haggerty, Hasenbank, Malchoff, Shavelson, Vigil, Williams, and Zinck. (Angela Totemoff joined the meeting in person at approximately 9:00 a.m.; Mike Bender and Dorothy Moore joined telephonically at approximately 9:00 a.m. and 11:55 a.m., respectively.)

Introductions and Directors' reports followed.

## **1-0 AGENDA**

President Archibald presented the agenda (green-colored sheet) for approval.

Michael Vigil **moved to approve the agenda** (green-colored sheet). Mako Haggerty **seconded** and **the agenda was approved as presented.**

## **4-1 DIRECTOR APPOINTMENTS FOR CORDOVA DISTRICT FISHERMEN UNITED AND CITY OF CORDOVA**

This agenda item was to confirm appointments to two vacant seats on the Board of Directors. A briefing sheet explaining the action requested was included in the meeting notebook as Item 4-1.

Amanda Bauer **moved to confirm** of the appointments of Robert Beedle representing Cordova District Fishermen United, and David Janka representing the City of Cordova to the Board of Directors, each with a term set to expire in May 2024. Kirk Zinck **seconded** and the **motion passed** without objection.

## **1-1 MINUTES**

Amanda Bauer **moved to approve the minutes** of the Regular Meeting of the Board of Directors of September 22 and 23, 2022. Kirk Zinck **seconded** and the **minutes were approved** as presented.

## **1-2 MINUTES**

Amanda Bauer **moved to approve the minutes** of the Special Meeting of the Board of Directors of December 20, 2022. Michael Vigil **seconded** and the **minutes were approved** as presented.

## **PUBLIC COMMENTS**

Rick Steiner of Oasis Earth representing the whales of Prince William Sound submitted written comments on two issues: the need for tanker whale strike reductions in Prince William Sound; and the need for a supplemental Environmental Impact Statement (EIS) on the environmental impact of the Trans Alaska Pipeline System (TAPS).

Steiner spoke of his disappointment about the lack of action or any mitigation measures being instituted to protect the whales in Prince William Sound from strikes by TAPS tankers, and the need for a supplemental EIS on TAPS because of the changes that have occurred since the last one was performed. He asked PWSRCAC to send a letter to the Bureau of Land Management (BLM) or the Department of the Interior (DOI) requesting BLM to do a supplemental EIS which would consider the impact of climate change on TAPS, and the impact of the TAPS operation on climate change. He hoped PWSRCAC would take both issues seriously and take some action. He emphasized that there would be no agency or government action absent a push in the right direction from a citizens' group such as PWSRCAC.

President Archibald thanked Mr. Steiner for his comments and invited him to attend a POVTS Committee meeting on February 8 to discuss these issues further.

## **INTERNAL OPENING COMMENTS – PWSRCAC TECHNICAL COMMITTEES**

### **TERMINAL OPERATIONS AND ENVIRONMENTAL MONITORING COMMITTEE (TOEM)**

Committee Chair Amanda Bauer updated the Board on the TOEM Committee's activities since the last Board meeting:

- TOEM Project Manager Austin Love has submitted his resignation to the Council. He is working part time until March 31 to keep committee projects going until his successor can be hired and he can transition the TOEM responsibilities to his replacement.
- The committee met to discuss and rank potential projects for the next fiscal year.
- The committee met with Dr. Craig Benson and listened to a presentation of his Secondary Containment Liner report. Dr. Benson answered the committee's questions and the committee took action to recommend Board acceptance of the report and distribution to industry and regulators. An in-depth presentation on this topic would be made later in this day's agenda.
- The committee recommended that Taku Engineering's ballast water Tank 93 memo and recommendations be accepted by the Board and distributed to industry and regulators. The Executive Committee approved the Tank 93 memorandum on December 15, 2022, and it was sent to Alyeska and state and federal regulators on January 4, 2023, along with a cover letter requesting Alyeska to provide a written response to the recommendations.
- The committee continued monitoring Alyeska's investigation of the small through-hole found in the floor of crude oil Tank 2 during its out-of-service internal inspection. Hydrocarbon testing of the soil in the vicinity of the hole confirmed that no oil had leaked through it. On October 27, 2022, Council staff Austin Love and contractor Bill Mott from Taku Engineering conducted a site visit at the Valdez Marine Terminal (VMT) to observe the results of Tank 2's inspection. During that visit, Alyeska reported that the pinhole-sized damage was likely a weld defect remaining from when a new floor was installed in the tank in 1994. The Tank 2 pinhole was repaired along with other repairs identified during the inspection. It is expected that Tank 2 will be back in service by February 2023.
- The committee continued monitoring Alyeska's progress to repair the damaged crude tank pressure/vacuum vents and prevent a reoccurrence of similar snow damage in the future. All 144 vents in the East Tank Farm have been repaired.

Alyeska continues to consider engineered solutions (e.g., snow splitters) to prevent damage to the vents in the future.

### **SCIENTIFIC ADVISORY COMMITTEE (SAC)**

Chair Davin Holen updated the Board on the SAC activities since the last Board meeting:

- Long Term Environmental Monitoring Program (LTEMP). 2023 is an expanded monitoring year for the program, which occurs every five years. Project Manager Austin Love will take the lead on field work and logistics while cross-training Project Manager Danielle Verna. Passive sampling devices will be deployed in May and retrieved in June when mussel and sediment samples will be collected. Planning is underway to procure vessel and float plane charters to reach the sites. Owl Ridge will continue to interpret and report results, as well as uploading LTEMP data to the AOOS database. Lastly, a final report of the mussel transcriptional gene response to the April 2020 oil spill should be presented to the Board in May.
- Dispersants. The Council's updated Dispersant Use position is now posted on PWSRCAC's website and has been disseminated to member entities and media outlets. Supporting materials to aid in communicating the dispersant use position will be presented at this meeting by Elise DeCola.

Additionally, Dr. Merv Fingas of Spill Science updated the Council's dispersants literature database with an additional 130 peer-reviewed published papers. Dr. Fingas drafted a report summarizing the findings of the latest research. SAC has reviewed the report and recommends it be sent to the Executive Committee for acceptance.

- Alaska North Slope (ANS) Oil Properties Report. Environment and Climate Change Canada recently submitted the results of their analysis of a 2019 sample of ANS crude oil. The analysis, which was done for the Council free of charge, was delayed due to the pandemic. Dr. Merv Fingas reviewed the results and drafted a summary report. The objectives of the report were to assess how the chemical properties of the sample affect mechanical and non-mechanical response methods; assess how those properties affect the fate and transport of oil spilled in Prince William Sound; and identify how the chemical properties of ANS crude oil have changed over time. Dr. Fingas noted that ANS crude oil has turned into a lighter oil over the years, which is good for economics and oil spill countermeasures. However, if ANS crude oil is spilled, it is still best dealt with using booms and skimmers. SAC reviewed the report and plans to send it to the Executive Committee for acceptance.



- Winter Marine Bird Survey. The third year of Council-supported winter marine bird surveys in and around the tanker escort lanes will be conducted by staff of the Prince William Sound Science Center in March. SAC will discuss the results of the survey later this spring.
- Forage Fish Survey. The results of the fourth year of Council-supported forage fish surveys will be presented to the Board at this meeting by Dr. Scott Pegau. The PWSRCAC funded surveys have met the initial needs of the project to indicate where schools of forage fish are present in the event of a spill response. SAC has recommended the Board accept the 2022 Forage Fish Report at this Board meeting.
- Oxygenated Hydrocarbons. Twelve complete sample sets have been collected from the VMT Ballast Water Treatment Facility and shipped to the University of New Orleans for analysis. SAC anticipates reviewing draft results in May. The lead contractor, Dr. David Podgorski, submitted an abstract to the Arctic & Marine Oil Spill Program (AMOP) related to this project. If that abstract is accepted, this project will be presented at AMOP in June. The committee extended sincere thanks to Alyeska staff for their cooperation and time over the past 12 months.
- Marine Invasive Species. The final datasets have been collected from PWSRCAC's 2022 marine invasive species interns in Cordova, Valdez, and Kodiak. Two of the interns have already completed an outreach presentation about their internship. Fortunately, no European green crab were detected in our region this year. A broadscale survey of marine invasive species is anticipated to take place in Prince William Sound this summer, led by the Smithsonian Environmental Research Center.

Mia Siebenmorgen Cresswell worked with the Council as an invasive species intern for two years in Cordova from 2020-2021. Mia was recently awarded the 2023 Ocean Youth Award from the Alaska SeaLife Center, following a nomination from the Council, for her dedication in promoting the understanding and stewardship of Alaska's oceans. Congratulations, Mia!

- Subsistence Harvest Surveys. The committee reviewed and commented on a draft subsistence harvest survey for the community of Tatitlek prepared by the Alaska Department of Fish and Game (ADF&G). SAC Chair Davin Holen, Project Manager Danielle Verna, the ADF&G social scientist leading the survey, and a project partner from the Chugach Regional Resources Commission created a two-page overview describing the project, reasons for it, and benefits to the community and regional organizations. The project partners will work collaboratively with the Village Council to ensure a community scoping meeting

takes place and the community has a voice in the implementation and content of the survey. This survey may be delayed for one year to ensure adequate community consultation.

- Peer Listener Training Program. The committee reviewed the RFP for Phase 2 of a project to update the Council's Peer Listener Program. In Phase 2, the outdated Peer Listener Training Manual will be updated using recommendations from Phase 1 (which was presented to the Board at its September meeting). Once the Training Manual has been updated, the committee and the project team will make a recommendation to the Board on future phases of the project.
- Science Night. The committee is interested in the Council's feedback on the December 2022 Science Night or suggestions for future Science Night events; those comments may be directed to staff member Danielle Verna.

Holen commended Austin Love for assuming the SAC program manager duties when the previous project manager left, which added to Love's existing duties as program manager of another committee, not to mention his duties conducting long-term environmental monitoring. He thanked Love for spending time with him during his first visit to the VMT and for taking the time to learn more about Holen's interests in SAC projects and direction for social sciences. As program manager, Love spent considerable time helping the committee plan out several years in advance and create an overall program that left SAC in good hands when Dr. Verna took over and Love continued to manage the committee's LTEMP program. Love will be working part time for the next few months and will help with this summer's LTEMP field season. Holen thanked Love for his dedication and service to the organization.

#### **OIL SPILL PREVENTION & RESPONSE COMMITTEE (OSPR)**

Chair Jim Herbert updated the Board on the OSPR Committee's activities since the September Board meeting:

- The OSPR committee lost longtime, valued member Jerry Brookman in November. He is greatly missed. The committee is soliciting Matthew Melton, Director of Business Development and Partnerships with International Bird Rescue, to join the committee.
- The committee updated the wording of the OSPR Committee mission statement as they worked through the Long Range Planning process this fall. The amended statement now reads: *"The Oil Spill Prevention and Response (OSPR) Committee works to minimize the risk and impacts associated with oil transportation through research, advice, and recommendations for strong and effective spill prevention and response measures, contingency planning, and regulations."*

- The committee was updated on area and regional planning efforts for the Alaska Regional Contingency Plan (c-plan), and the Prince William Sound, Arctic and Western Alaska, and Inland Alaska c-plans and area committees. The Council submitted comments for the Arctic & Western Alaska c-plan public review in November.
- Additional updates to the c-plans included:
  - The Prince William Sound Tanker C-Plan: Minor amendment including technical information on replacement of aircraft used for dispersant application.
  - VMT C-Plan: Minor amendment removing the requirement for testing hair as part of their drug and alcohol program. Alyeska gets a 5% prevention credit for this program; that percentage did not change with this switch in testing from hair to urinalysis.
- The committee received updates on the Council's work with geotechnical expert Dr. Craig Benson to identify and assess non-destructive evaluation methods to evaluate the integrity of the catalytically blown asphalt liner (a/k/a secondary containment) at the VMT. A presentation on Dr. Benson's report was on the agenda for this meeting.
- The committee was updated on activities in the Geographic Response Strategies (GRS) subcommittee, working to convert statewide GRSs to a GIS-based format.
- The committee was kept up-to-date on staff participation in an Alaska Regional Response Team (ARRT) initiated task force, working to construct a job aid for Regional Stakeholder Committee (RSC) members. An update on this process would be presented later in this Board meeting.
- The committee was updated on various weather-related projects, including the repair of the Cape St. Elias tower weather station and routine maintenance on the Port Valdez weather buoys.
- The U.S. Forest Service issued a permit to PWSRCAC for installation of a weather station on Kokenhenik Island in the Copper River Delta. Council staff has been working with the contractor to build the weather station. This station is expected to be installed and running by May 2023.
- Contractor Rob Campbell presented the draft Valdez Weather Buoy data analysis report to the OSPR Committee. The committee has recommended the report be presented to and accepted by the Board at this meeting.

Herbert pointed out that more information on all ongoing projects of the OSPR Committee could be found under Section 5 of the Board meeting notebook.

**PORT OPERATIONS AND VESSEL TRAFFIC SYSTEMS COMMITTEE (POVTS)**

Chair Steve Lewis noted that the Port Operations and Vessel Traffic Systems (POVTS) Committee was short on members and welcomed suggestions for adding members who have marine operations experience. He went on to outline the efforts of the POVTS Committee since the last Board meeting:

- The committee met to discuss and decide on potential projects for the next fiscal year. Two projects were put forward: a tsunami hazards guidance workshop for vessel operators in the Sound, and a state of industry tug technology review. The workshop would be similar to PWSRCAC’s firefighting workshops in the past.
- Project 8300 - Sustainable Shipping: This project is a review of the evolving regulatory framework for reduction of ship-generated emissions. Phase one is a regulatory review of the international, federal, and state regulations that are driving the decarbonization of shipping effluent and several new IMO regulations that are coming into effect this year that are going to significantly drive that transition. Contractor Nuka Research and Planning Group, LLC has started work on this project.
- Project 8520 - Miscommunication in Maritime Contexts: Contractor Dr. Nicole Ziegler has started work on Phase 1 of this project. Phase 1 is essentially a review of the prevalence and severity of miscommunication in the English language in Prince William Sound and its potential impact on our area of concern in the Sound. Phases 2 and 3 will be determined in future fiscal years, depending on the results of Phase 1.
- The next meeting of the committee will be by Zoom on February 13 at 1:00 p.m. Lewis reiterated an earlier invitation made to Rick Steiner to attend this meeting, as well as inviting anyone else who may be interested in Steiner’s comments. He will contact Steiner in the interim to talk about where Lewis thinks the conversation would be appropriate to go in the context of the POVTS meeting. Also, at that meeting the committee will discuss possible future projects, one of which being the possibility of reviewing pilot safety, and the other a review of bio-fouling prevention in this country. Both of these issues have come to the committee’s attention in light of recent news coverage.

**INFORMATION AND EDUCATION COMMITTEE (IEC)**

Aimee Williams reported for the Information and Education Committee (IEC). She reported the committee had had three regular meetings and one project team meeting since the last Board meeting in September.

- Community Outreach. Since the last Board meeting, Outreach Coordinator Maia Draper-Reich taught guest lessons at Seward Elementary School, Seward Middle School, and Prince William Sound College. Council staff also visited Gilson Middle School in Valdez and were interviewed by three classes of 7<sup>th</sup> grade students learning about local economy.

At the Arctic and Western Alaska Area Committee meeting in the fall of 2022, Draper-Reich and Project Manager Jeremy Robida presented about the Council's mission and structure and highlighted ongoing work that was relevant for that group.

In November, Draper-Reich and POVTS member Max Mitchell had the opportunity to share the Council's mission and work while staffing the Council booth at Pacific Marine Expo in Seattle.

The New Orleans Regional Planning Commission's Emergency Preparedness Partnership also reached out to Draper-Reich to give a virtual presentation earlier this month. She shared information about the Council and lessons learned following the Exxon Valdez disaster.

IEC member Kate Morse contributed to the Council nomination that led to Invasive Species Intern Mia Siebenmorgen Cresswell earning the Ocean Youth Award from the Alaska SeaLife Center (mentioned in the SAC report). IEC is glad to support honoring a young person like Mia Siebenmorgen Cresswell who has engaged in and shared the Council's work in a dedicated way.

IEC is looking forward to continuing its outreach efforts at the Alaska Forum on the Environment in February and the Alaska Tsunami Ocean Sciences Bowl in March.

- Youth Involvement. IEC accepted five final reports from the following four contractors as complete and meeting all deliverables: Center for Alaskan Coastal Studies, Copper River Watershed Project, University of Alaska Anchorage, and Alaska Geographic.

A contract with the Prince William Sound College is still ongoing and scheduled to be completed at the end of the fiscal year.

IEC's most recent Youth Involvement RFP received nine project proposals. The committee voted to use the remaining Youth Involvement budget for FY2023 to provide funding for six of these proposed projects.

- Web Presence BAT. After a lengthy search, IEC was excited to announce the selection of a new website contractor for the Council's three websites. Staff was coordinating onboarding for Cindy Bouchard of FlipFlop Freelance. Bouchard specializes in WordPress Content Management Systems, which has been used to build all of the Council's websites. She is an excellent fit for the Council's needs and will help ensure that the Council's websites and web presence maintain the best and most up-to-date technology available.
- Other. Both IEC and the Executive Committee voted to approve IEC member Cathy Hart's travel to Denver, Colorado, to attend the 2023 Nonprofit Technology Conference happening in April. This conference teaches essential nonprofit technology best practices and helps establish connections with others who are committed to social change.
- IEC was still looking for recommendations for a new committee member.

*(This concluded the Opening Comments of PWSRCAC's Technical Committees.)*

## **INTERNAL OPENING COMMENTS -- PWSRCAC BOARD SUBCOMMITTEES**

### **LEGISLATIVE AFFAIRS COMMITTEE (LAC)**

Mako Haggerty reported for the Legislative Affairs Committee (LAC) in lieu of Chair Dorothy Moore. He reported that the committee had four project team meetings since the September Board meeting. At those meetings the committee was provided updates from the Council's federal and state legislative monitors and PWSRCAC staff on issues of interest, including Dr. Craig Benson's report on the VMT secondary containment liner, the VMT tank vent damages from excessive snow and ice buildup on the tank tops in 2022, and Alaska oil spill planning criteria legislation.

#### Activities Since the Last Board Meeting:

- The committee received periodic updates from the Council's state and federal legislative monitors on the Governor's proposed budget, potential bills that could be reintroduced, and topics of interest to the Council.

#### State:

- A number of the bills being followed/supported by PWSRCAC failed to pass before the end of the last legislative session. PWSRCAC and LAC have been closely following the organization of the House and Senate following the mid-term elections in November. Now that that organization has taken place, LAC will have a better idea of which bills of interest to the Council will be reintroduced. Any bills that are reintroduced will start over in the legislative process and will need PWSRCAC's support in the future.

- The bills that might potentially be reintroduced in the current session would be related to the refined fuels surcharge increase which is needed to provide a stable funding source for the Alaska Department of Environmental Conservation's Spill Prevention and Response (SPAR) Division, PFAS legislation, and legislation to establish an Alaska Invasive Species Council.

Federal:

- PWSRCAC and LAC continue to track and support the Oil Spill Liability Trust Fund (OSLTF) legislation which was previously proposed by Senator Dan Sullivan but has since expired. PWSRCAC staff and its legislative monitor will be working to identify potential sponsors for a similar bill and will continue to support future OSLTF legislation by offering advice and recommendations.
- The committee has been kept up to date on the House transition of power in Washington, D.C., and how this might impact PWSRCAC's issues and concerns going forward.
- PWSRCAC and LAC continued to track Alaska oil spill planning criteria legislation that was originally included in the 2022 Congressman Don Young Coast Guard Authorization Act, but which was eventually passed in the Senate in the 2023 National Defense Authorization Act. The final bill included many of the recommendations made by PWSRCAC and included the exemption language that covers TAPS tankers operating in Prince William Sound.

LAC Priorities Going Forward:

- LAC's top state legislative priority continues to be the long-term sustainability of the Alaska Department of Environmental Conservation's Spill Prevention and Response (SPAR) Division. LAC will continue to support legislation proposing a raise of the refined fuels surcharge in order to provide a stable funding base for the SPAR Division in the future. The Governor's proposed FY2024 budget represents *status quo* operations for SPAR. However, due to the ongoing shortfall in revenues generated by the assessment on throughput of TAPS and the existing refined fuels surcharge, the Governor's proposed budget relies on an uncertain infusion of general fund dollars.
- The committee will continue to monitor potential changes to ADEC regulations and possible statute changes associated with the department's regulatory reform. The revised c-plan regulations were adopted and approved by the Lieutenant Governor on January 6, 2023 and will go into effect in early February 2023. PWSRCAC staff, with contractor support, are currently reviewing the regulations to determine where the significant changes were

made and what the potential implications are. LAC will be provided updates on the outcome of this review at future meetings.

Haggerty noted that there would be a lot of work to do in the coming year and thanked staff for their support of the committee.

#### **BOARD GOVERNANCE COMMITTEE (BGC)**

Luke Hasenbank reported the Board Governance Committee met on January 17, 2023, to review legal opinions provided by the Levesque Law Group and discuss procedural requirements and potential bylaw amendments specific to the creation and filling of a temporary recreation seat. This meeting resulted in the committee recommending that the Board approve the proposed bylaw amendments and associated actions at this Board meeting (under Item 4-9).

#### **FINANCE COMMITTEE (FC)**

Treasurer Wayne Donaldson reported that due to the transition to the new accounting system, the Finance Committee (FC) had not been able to meet since the September Board meeting. Staff has been working through the settings and report features of Sage Intacct and has carefully handled how each detail is presented. The committee planned to have a meeting in mid-to-late February where the December 31, 2022 financials would be presented, as well as any other important items that have come up.

More detail on the new accounting system, as well as the new payroll system, will be presented to the Board during the Financial Manager's Report to the Board under agenda Item J on the following day's agenda.

The Board would be asked to approve current fiscal year budget modifications at this meeting (Item 3-3 on the Consent Agenda). The Finance Committee has reviewed those budget modifications and did not have any questions.

*(This concluded the Opening Comments of PWSRCAC's Board Subcommittees.)*

#### **EXTERNAL OPENING COMMENTS - EX OFFICIOS**

##### **ALASKA DEPT. OF ENVIRONMENTAL CONSERVATION (ADEC)**

Allison Natcher reported that ADEC had performed inspections of the snowpack at the VMT and was also working with Alyeska and the shippers on their c-plan renewals and major amendments in the next few months and the changes to Article 4 Oil Discharge Prevention and C-plan regulations. Natcher pointed out that SPAR Director Tiffany Larson would update the Council during the afternoon session on the changes to Article 4 and answer questions on this and other issues.



Natcher announced that there would be a presentation on ADEC's GRS to GIS project at the Alaska Forum on the Environment giving more details on the project, demonstrating how ADEC went through the process and how the GRSs look now.

### **ALASKA DEPT. OF FISH AND GAME (ADF&G)**

Lee McKinley, the ADF&G liaison to the Joint Pipeline Office, had no specific report but was there to gather information and answer questions the Board might have.

Mako Haggerty inquired as to the point person within the agency for invasive species. McKinley did not have that information on hand but would follow up and provide it to PWSRCAC after the meeting.

### **OIL SPILL RECOVERY INSTITUTE (OSRI)**

Dr. Scott Pegau reported that OSRI was involved in several projects. One of the things he has tried to pitch to PWSRCAC is the need to update the environmental sensitivity index (ESI) maps. These are the maps that USCG will open first when looking at an oil spill response in Prince William Sound. The process to get these maps updated falls to NOAA, but NOAA does not have funds available to do it in the way they have done it in the past which has been to update every piece of information in the map at once. OSRI is currently supporting the update of the bird habitat layer in Cook Inlet. OSRI is doing this to demonstrate that the map does not have to be updated all at once; rather, it can be done affordably one layer/section at a time. Pegau pointed out that the need for updates becomes obvious when one pulls up the electronic maps and certain species or seasonal species information is missing. He also noted that it had been 20 years since OSRI and PWSRCAC supported the last updating of the maps. Some of the missing information may have been lost in the transition to the electronic maps, but even so, if one is familiar with the area, one would know how out of date the information that is in those maps. He pointed out that NOAA's ERMA mapping interface can pull up other information but one has to know to look for it. He emphasized the importance of these documents in spill response because they are the first things people are going to look at in mounting a response. Pegau stated that he had been encouraging almost everyone he meets on the importance of updating these documents. The more he looked at them, the more concerned he was that someone will actually try to use the outdated information in the event of a spill.

Other projects OSRI was working on include:

- A science of oil spill remote learning course that can be used at multiple different levels. It is his hope that parts of the course can be incorporated into the HAZWOPER curriculum.
- Development of a fluorosensor to be flown on small, unmanned aircraft. The fluorosensor provides a better identification of oil at night, particularly diesel oil. OSRI is building it with the idea that it could be flown on a small aircraft, but it

could also be used on a small boat or handheld. Initial tests have shown that oil can be detected from over 50 ft away and there are ways to use shipboard systems to get much farther than that, and it is useful to be able to develop new tools to detect oil in the dark.

Angela Totemoff encouraged OSRI and PWSRCAC to work together to explore what the two organizations could do in terms of internships and career possibilities for young individuals. Pegau agreed with Totemoff but also pointed out that OSRI had just offered an RFP for internships and no one applied, and so they needed to find a different way to make those kinds of offerings work. He offered to meet with Totemoff to explore some alternative approaches coming online that may be useful in this regard.

*Break: 9:44 a.m. – 10:00 a.m.*

### **ALASKA DEPT. OF NATURAL RESOURCES (ADNR)**

Peter Johnson introduced himself as the new ex officio designee to PWSRCAC for the State Pipeline Coordinator's Section of ADNR's Division of Oil & Gas. With regard to TAPS, his primary role as a lease compliance specialist is ensuring that all measures of the TAPS lease are upheld. It involves a lot of surveillance of the pipeline - a statewide inspection - and working with the Joint Pipeline Office (JPO), including the various federal agencies along with all the other divisions within ADNR. His experience is primarily in land management, not engineering, but he often has an engineer with him when he does inspections.

Wayne Donaldson asked about the erosion/subsidence of TAPS in certain areas due to climate change and whether that fell within Johnson's responsibilities. Johnson clarified that his inspection responsibilities cover the entire pipeline and the right-of-way. Any issues he sees are recorded and then submitted in reports as repairs or issues that need to be addressed within the Division of Oil & Gas or coordinated with other agencies.

Donaldson asked Johnson if ADNR could provide the Council with a brief overview of the condition of the pipeline at a future Board meeting, particularly on areas of the pipeline closer to Valdez.

Bob Shavelson echoed Rick Steiner's earlier comments to the Council that the EISs that were previously done were fairly incomplete. He asked if Johnson had observed any climate change-related impacts along the TAPS corridor, such as erosion or subsidence. Johnson stated that it would be generally hard to classify an issue as definitively related to climate change without further investigation. Observations are simply recorded as something that has changed or is not as it was before. Shavelson asked if there was a log/record of those observations, and Johnson confirmed that ADNR keeps a log but it is not a log of frequency *per se*, but a log of needed repairs, such as if ADF&G needed to repair a culvert or something of that nature.

Project Manager Austin Love asked Johnson to explain the coordination and division of responsibilities of the various federal and state agencies regulating the pipeline, but specifically at the VMT. Johnson explained that the authority and responsibility of the state of Alaska falls generally to issues with state lands, which basically ends at the VMT, including the State Pipeline Coordinator's responsibilities, but there are other liaisons with the state that are allowed certain privileges. The coordination with the federal agencies occurs in the Joint Pipeline Office where federal and state agencies coordinate, share, and disseminate information back and forth constantly to ensure a safe, responsible running of the TAPS line from extraction of the oil to its transportation.

Project Manager Linda Swiss asked if there was documentation PWSRCAC could access that captures that coordination or the handoffs of information between the federal and state agencies in the JPO, adding that it has been hard for PWSRCAC to follow the interactions of the JPO and the various state and federal agencies. Johnson said he would find out and report back.

Michael Vigil asked if Johnson's responsibilities took him physically into Prince William Sound. Johnson stated that since ADNR's responsibilities end at the VMT he is not in the Sound much.

ADF&G's Lee McKinley reported that all the agencies within the JPO meet once a month for a coordination meeting.

Amanda Bauer remarked that the information Johnson had provided at this meeting about the inter-agency workings of the JPO was the most the Council had been able to glean in a while, despite many requests to the JPO for such explanations. She thanked Johnson for the information and stated that any additional information he could provide would be useful to the Council.

### **U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)**

Mary Goolie, a planner with EPA's Emergency Response Office in Anchorage, reported that she was also the EPA's coordinator to the Alaska Regional Response Team (ARRT), along with representatives from ADEC and USCG (a tri-chair position). She reported that a new ARRT coordinator had recently been appointed by the USCG and who was also located in Anchorage.

She announced that the next ARRT meeting will be March 8 in Anchorage. She thanked both PWSRCAC's Executive Director Schantz and Mike Munger of Cook Inlet Regional Citizens Advisory Council for providing dates for minimizing conflicts. The schedule going forward from March will be to meet twice a year -- in September 2023 and then again in March 2024.

Goolie announced that the Alaska Inland Area Admin Subcommittee will be looking at updating the Alaska inland Area c-plan on March 6 in the Atwood Building in Anchorage.

She thanked PWSRCAC staff who participated in the Regional Stakeholder Committee (RSC) task force meetings. The coordinators for the ARRT were asked by the co-chairs to form a task force to create job aids for the liaison officer and the RSC. The task force will also look at updating the language of the original regional stakeholder committee in the area c-plans as well. The task force is using the Constant Contact program, in conjunction with partners ADEC, USCG, and EPA, to get information out on all of its area committee meetings, subcommittee meetings, ARRT meetings, etc. She directed anyone interested who was not receiving information to sign up for notifications via their website.

### **U.S. DEPARTMENT OF THE INTERIOR (DOI)**

Lisa Fox introduced herself to the Council as the recently designated replacement for Phil Johnson for the Department of the Interior (DOI) to PWSRCAC. She is with the Anchorage Office of Environmental Policy and Compliance. It is a small office (two personnel) that works primarily on oil spill response and NEPA guidance and oversight for the DOI bureaus.

She thanked PWSRCAC for its work and input on the Arctic and Western Area c-plans.

She reported that as part of her ARRT duties she chairs the Wildlife Protection Committee which has wildlife protection guidelines on the Pribilof Islands out for public review. While not directly related to PWSRCAC's geographic area, she invited those interested to review them for informational purposes.

She reported that she also co-chairs the Cultural Resources Protection Committee under the ARRT. That committee is working on the Alaska implementation guidelines for the National Programmatic Agreement which protects cultural resources during a spill.

She reported that the committee would be doing administrative updates only to the wildlife guidelines in the next year or so.

She pointed out that a Federal Register notice had been published that day for the Exxon Valdez Oil Spill Trustees Council Public Advisory Committee (PAC), opening nominations for positions on that committee.

Steve Lewis spoke of the importance of the PAC group and emphasized that the need for the group to remain vocal and outspoken had probably never been greater. He encouraged anyone interested in participating to put their name forward. Lisa Fox added that it is an important group, with federal standing under the Federal Advisory Committee Act (FACA) and is special in that it has a designated federal officer assigned to it, which is the function that Fox's office provides to the PAC. Amanda Bauer disclosed

that she serves on the PAC at the present time, as well as Patience Andersen Faulkner and George Skladal. She was undecided whether she would put her name forward to serve again.

### **UNITED STATES COAST GUARD (USCG)**

CDR Patrick Drayer reported on the following USCG/MSU-Valdez activities since the Board's September meeting:

He reported that the Coast Guard Authorization Act was wrapped into the National Defense Authorization Act and included alternative planning criteria for Western Alaska and both the Captain of the Port zones of Arctic and Western Alaska and Prince William Sound, and that tasking within the statute would probably take two years to implement. Exemptions for TAPS-trade tankers were included in the Act, so there should be no impact to tanker companies.

CDR Drayer reported that the radars and communications systems in the Sound were good and everything was operational. He had no more information on the result of the National Vessel Traffic System program needs assessment that is looking at long-term future needs.

Capt. Ian Maury of SWAPA had some questions about the alternative planning criteria. He pointed out that while it will not apply to TAPS tank vessels in the Sound, as they fall under USCG Vessel Traffic System (VTS) and the response plan surrounding that, the pilots have had issues with passenger ships in the Sound being routed by the Marine Exchange. It appears there are two competing alternative planning criteria between the Alaska Chadux Network partnered with the Marine Exchange and the other called One Call Alaska. None of this information is outlined in the pilotage regulations, so the pilots do not know who they are employing because it is part of an OSRO and they have different plans depending on who they are employing. Maury asked whether this confusion would be cleaned up through this alternative planning criteria.

CDR Drayer responded that alternative planning criteria is simply a mechanism to ensure a vessel can be in compliance with the vessel response plan (VRP) requirements within a certain Captain of the Port (COTP) zone; so, when USCG Headquarters accepts an alternative planning criteria, this Act will streamline and cleanup some of those issues to some extent. There will continue to be multiple organizations that are able to apply for and have alternative planning criteria accepted; there is nothing in the Act that states only one company may do it. But it will still be incumbent upon each vessel operator to know they are transiting through any given COTP zone to ensure they have an approved VRP which includes that alternative planning criteria as necessary.

### **ALASKA DEPT. OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT (ADHSEM)**

(No report.)

### **BUREAU OF LAND MANAGEMENT (BLM)**

Reid Olson, an acting supervisor for BLM located in Fairbanks, reported on BLM's activities since the last Board meeting:

- Attended tabletop drills and equivalent deployments – Oct 11 & 12, 2022.
- Completed the concurrence of the VMT C-plan for 2023.

For 2023, BLM's routine activities related to PWSRCAC will include:

- An assessment of the VMT C-plan for 2022.
- Tracking all the VMT exercises completed.
- Planning to attend the oil spill exercise planning meetings, VMT coordination workgroup meetings, Prince William Sound Area Committee meetings, and the Alaska Regional Response Team meetings.
- Planning to attend all VMT major oil spill exercises.
- Planning one or more oil spill equipment inspections at the VMT.
- Continue to monitor the Alaska hire program.
- Processing applications for temporary land use and grants of rights-of-way and contracts for minimal material sales.

In response to inquiries from Jim Herbert about BLM's staffing relating to TAPS, Olson reported that there was one person stationed in the Valdez office, one vacant position in Valdez with no plans to fill the position soon, staff in Anchorage, and three stationed in Fairbanks, including himself.

As to compliance with the Native Hire Agreement, Alyeska's Mike Day reported 23.8% compliance overall, including contractors and Alyeska. Alyeska alone was at 27.2% compliance, and the reporting contractors 20.3%

Following up on her earlier request to DOI, Project Manager Linda Swiss stated that PWSRCAC would be interested in getting more information from BLM on its activities and interactions with the other agencies within the JPO. She emphasized to Olson the importance to PWSRCAC of having this understanding of the agency interactions. Olson explained that when they coordinate efforts at the JPO to come up with a decision, they issue a JPO letter with signatures of all the agencies, and that is their record. BLM works with its partners in the JPO within their regulatory authority and it comes together either as a JPO letter or an individual agency letter to Alyeska. Olson will check whether these documents would require a records request in order for PWSRCAC to obtain copies.

### **NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA)**

LCDR Hadley Owen with NOAA's Office of Coast Survey spoke to the Council on NOAA's transitioning from paper to electronic navigation charts (ENC). She reported that the

transition across the U.S. began in 2021 and is about halfway completed, with a target completion of January 2023. It is targeted for larger vessels under USCG regulations but it will impact all vessels that are using digital versions of paper charts. As part of this transition, NOAA is rescheming its ENC's to have more consistency in scale from region to region. In process at that time was the eastern half of Prince William Sound. The first edition of a new chart for the Columbia Bay and Glacier would be coming out in the next month and will be based almost exclusively on the track line data from Stan Stephens Cruises covering 2017-2019. A second edition of the chart will come out in June-July 2023 and will include the surveying data from NOAA's ship Fairweather.

Owen mentioned that she was asked by the National Weather Service to make sure PWSRCAC was aware of the upcoming changes to the marine zones in Prince William Sound (and statewide) which would come into effect on March 8, 2023. The marine zone changes will give better resolution for nearshore versus offshore areas of the state and they will also change marine zones in Prince William Sound from one to four. More information was available on the website [weather.gov/Alaska/marine](https://www.weather.gov/Alaska/marine).

Mako Haggerty voiced his disappointment about losing paper charts, saying that one could make one's own notes on the paper charts. Owen said that there would be an interface under NOAA Custom Charts where one could go and create a PDF of an area from an ENC and print it. All charts will also be archived in NOAA's historical charts ([historicalcharts.noaa.gov](https://www.historicalcharts.noaa.gov)), but they will not be updated henceforward.

Owens offered to assist and answer further questions on the transition to ENC's and may be reached at [alaska.navmanager@noaa.gov](mailto:alaska.navmanager@noaa.gov).

### **U.S. FOREST SERVICE (USFS)**

(No report.)

*(This concluded the External Opening Comments of PWSRCAC's Ex Officio Members)*

### **EXTERNAL COMMENTS – TAPS SHIPPERS, OWNER COMPANIES, AND PILOTS**

#### **CROWLEY ALASKA TANKERS (CAT)**

Angelina Fuschetto reported that Crowley Alaska Tankers transported 25.7 million barrels of oil from the Valdez Marine Terminal (VMT) without incident in 2022. The California and the Washington were continuing to operate on the West Coast and they were also trading into Cook Inlet. The Oregon was down in the Gulf of Mexico and was operating in the East Coast trades at the present time.

She noted that the company was coming up on its 5<sup>th</sup> anniversary of operations in April 2023.

#### **POLAR TANKERS**

Andrea West reported Polar Tankers had transported 87 loads totaling 67.9 million barrels of oil from the VMT in 2022 without incident, and seven loads totaling 5 million barrels YTD 2023.

Two bridge resource management courses were planned for the fall 2023 in Seward, and there were two shipyards planned for 2023: June 2023 for the Resolution, followed by the Discovery, and both will have their ballast water treatment systems installed.

### **ALASKA TANKER COMPANY (ATC) AND HILCORP**

Rob Kinnear made a combined report for Alaska Tanker Company and Hilcorp in the absence of ATC's Chris Merten.

The combined activity for ATC and Hilcorp in 2022 was 63 vessel loadings in Valdez, totaling 61.8 million barrels without incident; 62 of the 63 loadings were on ATC ships, and one foreign flagged charter (the Sabine) last spring which carried out 940,000 barrels.

To date in 2023, there had been seven loadings, all on ATC ships, totaling 5.5 million barrels. The outlook for 2023 was that all their cargos would be going to the West Coast since West Coast demand had come back strong. There were no foreign flagged charters planned for 2023 at that time.

Shipyards were planned for the Explorer and the Navigator during the second half of 2023. If scheduling problems should arise for those shipyards, that could trigger the need for a foreign flagged charter.

Planning for the 2023 Prince William Sound spill drill, scheduled for the week of May 13 was going well. It will be an in-person and virtual exercise.

### **MARATHON**

(No report.)

### **SOUTHWEST ALASKA PILOTS ASSOCIATION (SWAPA)**

Capt. Ian Maury reported that SWAPA had had a board meeting the previous day with the state, and the association had gone from 15 to 16 marine qualified pilots and added one additional deputy pilot, making 19 qualified pilots at that time, which was one more than they had in 2022. This should be more than an adequate number of pilots to cover the TAPS trade and the increase in cruise traffic.

He will meet with Alaska Chadux Network soon to discuss the new requirements under the recently passed Coast Guard Authorization Act; however, with the exemption of the TAPS trade vessels under that Act he did not anticipate any major regulation changes or issues with the current vessel response and escort plans.



(This concluded the External Opening Comments of TAPS Shippers, Owner Companies, and Pilots.)

Break: 11:16 a.m. - 11:27 a.m.

**ALYESKA/SERVS ACTIVITY REPORT**

Alyeska’s Emergency Preparedness & Response Manager, Mike Day, delivered Alyeska/SERVS’ activity report for the 2022 calendar year in the absence of its Director Andres Morales.

**VMT Operations:**

- Operations: (As of 12/31/2022)
 

	<u>2022</u>
○ Tankers Loaded	202
○ Tankers Escorted	211
○ Barrels Loaded	176,446,377
	<u>Since start up</u>
○ Tankers Loaded	23,286
○ Tankers Escorted	14,605
○ Barrels Loaded	18,539,689,449
  
- Safety: (As of 12/31/2022)
 

○ Days away from work cases	3
○ TAPS Combined Recordable Rate %	0.68
  
- Environment (Valdez): (As of 12/31/2022)
 

○ Spill Volume (Gallons)	7.8
○ Number of Spills	6

**Fishing Vessel Availability by Port (end of 4Q 2022):**

<u>Port</u>	<u>Tier 1</u>	<u>Tier 2</u>
Valdez	20	16
Cordova	22 (7 Rapid Resp.)	106
Whittier	6	14
Seward		24
Homer		37
Kodiak		<u>34</u>
<b>Totals</b>	<b>55</b>	<b>231</b>

**2022 Contingency Plan Activities:**

- VMT Contingency Plan Minor Amendment 2022-1:  
Published December 2022.
- Prince William Sound Tanker Contingency Plan Minor Amendment 2022-1:  
Published December 2022.

**2022 4<sup>th</sup> Quarter Training & Exercises Completed**

- VMT IMT Exercise 10/11 – 12.
- Wildlife Training in Valdez 10/17 – 19.
- Wildlife Training in Cordova 10/19 – 21.
- Nearshore Operational Readiness Exercise (ORE)
  - Nelson Bay 11/3.
- Unannounced Decontamination Exercise 12/7.

**2023 Contingency Plan Activities:**

- 18 AAC 75, Article 4.

**2023 VMT/Prince William Sound Upcoming Training & Exercises:**

- 3/23 VMT IMT Training Exercise.
- 4/20 2023 VMT Wildlife Equipment Deployment.
- 5/16 Prince William Sound IMT Exercise – Hilcorp.
- 10/3 SCAT Training.
- 10/4 VMT IMT Exercise.
- Spring Fishing Vessel Training.
  - Kodiak 3/29 – 4/2.
  - Homer 4/3 – 4/8.
  - Seward 4/9 – 4/12.
  - Whittier 4/13 – 4/17.
  - Cordova 4/17 – 4/26.
  - Valdez 4/27 – 5/3.

**2023 VMT Snow Removal:**

- Tank Pressure Vacuum Vents (PVV) Repairs.
  - 3 tank nozzles fitted with encapsulation assembly.
  - 3 tank nozzles fitted with blind flange.
  - All other PVVs repaired.
  - Tank 2 return to service.
- Snow Removal Updates.
  - Policies and Procedures (priorities, practices).
  - Monitoring and reporting.
  - Staffing plan.

### **2023 Valdez Major Maintenance:**

- Replace sulfuric acid tank with HDPE tank.
- Tank 93 – Internal API653 Inspection.
- Tank 93 – Annular Ring Replacement.
- DAF Cell 6 – Repair and Coat.
- Tank 8 – Isolate, Clean and Remove from Service.
- Berth 4 Header & TK-93 Branch Leg Ballast System Inspection.
- VMT 48" Crude A & B Header ILI Inspection.
- OSRB 5 (Mineral Creek) – Construction.
- 500-2 – Shipyard.

Day supplemented the power point presentation with the following comments:

- Throughput increased in 2022 by 6,000 bbls/day over 2021 and was the first increase since 2017.
- 2022 was the 45<sup>th</sup> anniversary year of operations for Alyeska.
- Some changes will be made to the Fishing Vessel Training; on-land equipment stations will be run again. These went away during the pandemic.
- 2023 C-plan activities will focus on the changes to Article 4, 18 AAC 75, and how it will affect Alyeska and renewal of its VMT C-Plan in 2024. Alyeska will need to submit its application in the latter part of 2023.

*(Dorothy Moore joined at 11:55 a.m. 16 Directors present.)*

Project Manager Austin Love thanked Day for the update on the snowpack removal and the in-line inspection (ILI) update. He pointed out the substantial time and effort that Alyeska put into remediating all the pressure vacuum vents on the storage tanks. Love also commented on the in line inspection (ILI) work (which was not required by state or federal regulations) but was good engineering practice to make sure that the crude oil of piping was being well maintained. He also asked about the decision to take Tank 8 out of service for an indefinite period of time. It was his understanding that a new floor and cathodic protection system was to be installed on that tank. Day stated that the tank would be out of service indefinitely but if it were to be returned to service that work on the floor and the cathodic protection would be done at that time.

Amanda Bauer asked about the SERVS tugs' drydock inspections. Day explained that because all the ECO tugs came into the SERVS fleet as new vessels at the same time, their inspections were all due the same year. To avoid that, Alyeska started the inspections early, in 2022. Two of the five tugs have completed their UWILD (under water in lieu of drydock) inspections, one is in progress, and the other two will have theirs done later in 2023. This will stagger their drydocks in the future.

Robert Beedle asked if SERVS could help with a deterrent on its buoys at the Nuremberg Hatchery so the sea lions cannot haul out on them. The sea lion haul-outs are causing problems with the amount of brood stock they consume. Day responded that Alyeska had been in touch with leaders at Prince William Sound Aquaculture Corporation recently and others to address that very issue.

At the request of Bob Shavelson, Day gave a brief overview of the handling of the tankers' ballast water and the VMT's operation of the Ballast Water Treatment Facility (BWTF). Austin Love added that in the last review of the effluent concentrations coming out of the BWTF under Alyeska's water quality permit, there had not been any violations of the state standard in the effluent concentrations; rather, to the contrary, they were so low that Alyeska did not have a specified limit under its new permit, because there was very low risk of exceeding that state standard. He noted that there was a PWSRCAC project upcoming in the next fiscal year to look at the effluent that is currently coming out of the BWTF.

### **For the Good of the Order**

Executive Director Schantz pointed out that Items 3-1 and 3-2 were in reverse order in the meeting notebook from their designation on the agenda.

Schantz also asked those who wished to express farewell sentiments to staff members Austin Love and Gregory Dixon to sign the books at the back of the room.

*Lunch Break: 12:20 p.m. – 1:00 p.m.*

### **CONSENT AGENDA**

The Consent Agenda consisted of three items (3-1, 3-2, and 3-3).

Mako Haggerty pulled Item 3-1 - Approval of Marine Invasive Species Sole Source Contract [3-2 in meeting notebook]. Item 3-1 was placed under Item L - Consideration of Consent Agenda Items for the following day.

Amanda Bauer moved to approve the consent agenda, with the exception of Item 3-1 [3-2 in meeting notebook] as follows:

- **3-2 APPROVAL OF LTEMP BUDGET MODIFICATION AND CONTRACT CHANGE ORDER [3-1 in the meeting notebook]**  
Authorization of a FY2023 budget modification from the contingency fund to project #9510 – Long Term Environmental Monitoring Program adding \$836 for contract expenses, and approval of negotiation of a contract change order, for Contract 951.22.06, with Owl Ridge Natural Resource Consultants, adding \$5,058 for compensation to archive the 1993-2021 Long Term Environmental Monitoring

Program data in the Alaska Ocean Observing System and extending the term of the contract to March 31, 2023.

- **3-3 APPROVAL OF FY2023 BUDGET MODIFICATIONS**

Approval of the FY2023 budget modifications as listed on the provided sheet, with a total revised contingency in the amount of \$128,778.

Angela Totemoff **seconded** and **the motion passed** without objection.

**4-2 REPORT ACCEPTANCE AND CONTRACT CHANGE ORDER APPROVAL: SECONDARY CONTAINMENT SYSTEM EVALUATION METHODS**

Project Manager Austin Love introduced two action items requested of the Board under its secondary containment evaluation project (Project 6512): (1) approval of the contractor's report; and (2) approval of a contract change order.

Love briefly recapped the history of this project and the Council's concerns, and the decision of ADEC that by October 2023 Alyeska must come up with "preliminary" methods to evaluate the integrity of the catalytically blown asphalt (CBA) liner in the East Tank Farm and identify "final" methods by March 1, 2025.

Love introduced Dr. Craig Benson, the Council's project contractor, who reviewed with the Council how his assessment of the CBA liner testing methods was conducted, presented his results, and report.

A detailed briefing sheet (Item 4-2) was included in the meeting notebook along with a copy of the report (Item 4-2 Attachment).

Dr. Benson's recommendations were as follows:

- Employ electrical leak location and/or electrical resistance tomography (ERT) methods to evaluate the CBA liner across **all containment cells** in the East Tank Farm.
- To estimate the total number of defects, Alyeska would need to evaluate at least 20% of the area.
- To detect and locate all defects, Alyeska would effectively need to evaluate the **entire area** of the buried liners.
- Conduct a pilot study of electrical leak location and ERT methods in West Tank Farm – at least 20% of area, with direct visual inspection afterwards to validate the results.

Following Dr. Benson's presentation, Board members engaged with him on specific questions related to his methodology.

In response to questions from Bob Shavelson regarding improvements in technology as alternatives to CBA liners, Dr. Benson stated that CBA liners are no longer used in the industry today because it is now known there are shortcomings with them. Industry best practice at the present time is to use factory manufactured geomembranes, which are high density plastic sheets. Even with that system, they are built with an underlying composite clay-type liner to create a system which has a very low leakage rate. He commented that the CBA liner system at the VMT is unusual and is not generally seen today.

Shavelson opined that this is an economic decision for Alyeska. The CBA liners were put down in the 1970s, and it is inevitable that the system has defects and therefore does not meet the state's response planning standard prevention credit requirement. Shavelson stated that maintaining the prevention credit for its secondary containment is a disincentive for Alyeska to address the problem with the CBA liners, and that the first thing PWSRCAC should do is press for the removal of the state's prevention credit and let Alyeska weigh the economics of addressing its secondary containment system or risk losing its VMT C-plan approval.

Dr. Benson emphasized it is standard industry practice to inspect critical industry infrastructure regularly to ensure it is functioning properly.

Amanda Bauer **moved to accept** the report titled "Methodologies for Evaluating Defects in the Catalytically Blown Asphalt Liner in the Secondary Containment System at the Valdez Marine Terminal" by Dr. Craig H. Benson dated November 29, 2022, as meeting the terms and conditions of Contract 6512.22.02, with direction to staff to forward the report to Alyeska, and state and federal regulators accompanied by a cover letter summarizing findings and recommendations with requests for appropriate action and a complete response. Angela Totemoff **seconded** and the **motion passed** without objection

Amanda Bauer **moved to approve** negotiation of a contract change order, for Contract 6512.22.02, with Dr. Craig H. Benson, adding \$7,900 for compensation to attend meetings with the Council, Alyeska, state and federal regulators promoting the findings and recommendations of his November 29, 2022 report and extending the term of the contract to June 30, 2023. Angela Totemoff **seconded**. Discussion followed.

Ben Cutrell questioned the budget amounts in the briefing sheet and the reason for the additional funds request. Schantz explained that some legal fees that were no longer needed for the project were removed from the project's budget by the Council's approval of the budget modifications under the consent agenda (Item 3-3), and any

project's budget is the total amount of funds appropriated for that project, not solely the amount of a contract.

Bob Shavelson voiced his objection to the contract change order, stating that he felt the Council was going in the wrong direction. He would like to see an economic study on how much Alyeska is saving by not addressing the CBA liner. In his opinion, the liner is probably perforated with defects and fails to meet the standard needed for Alyeska to qualify for the prevention credit. He recommended going straight to the economic incentive (i.e., taking away Alyeska's prevention credit), instead of having more meetings and studying it for another 10 years or so.

Executive Director Schantz pointed out that ADEC was originally going to require only 10% of one dike cell to be tested, and if PWSRCAC wanted to get more action on this it needed to promote Dr. Benson's findings to Alyeska and the regulators.

**A roll call vote was called and taken:**

Robert Archibald	Yes.
Amanda Bauer	Yes.
Robert Beedle	Yes.
Mike Bender	Yes.
Nick Crump	Yes.
Ben Cutrell	Yes.
Wayne Donaldson	Yes.
Mako Haggerty	Yes.
Luke Hasenbank	Yes.
Dave Janka	Yes.
Melvin Malchoff	Yes.
Dorothy Moore	Yes.
Bob Shavelson	No.
Angela Totemoff	Yes.
Michael Vigil	Yes.
Kirk Zinck	Yes.

The **motion passed** 16 in favor; one opposed (Shavelson).

**4-9 CREATION AND APPOINTMENT OF TEMPORARY RECREATION SEAT**

The purpose of this agenda item was to fill a new Temporary Recreation Seat as a Class I member on the Board of Directors until a full Request for Qualifications (RFQ) process could be conducted, giving time for the Board to consider a permanent entity to provide representation for regional recreation interests.

PWSRCAC's Director of Communications, Brooke Taylor, outlined the issue that had arisen around PWSRCAC's annual recertification with the USCG as to the Class I representation of regional recreation interests on the Council. Seating of a temporary representative for recreation interests would resolve the situation, while giving the Board time to discuss a permanent solution and conduct an RFQ through the PWSRCAC's Board Governance Committee (BGC). PWSRCAC had received a letter from Jim Herbert expressing his willingness to fill this Temporary Recreation Seat if the Board was in support of him doing so. Mr. Herbert met the basic requirements the Board would be looking for in an acceptable candidate for the position. A detailed briefing sheet was included in the meeting notebook under Item 4-9 which also included Mr. Herbert's qualifications for the position and the requested Board actions.

In order to accomplish the action sought (seating of a temporary recreation seat on the Board) the Board was asked to:

- Waive PWSRCAC Administrative Procedure 16-01 (Attachment B to 4-9) "Consideration of an Entity for the PWSRCAC Board of Directors" for the Temporary Recreation Seat,
- Approve the proposed changes to PWSRCAC Bylaws for the temporary seating of Jim Herbert (Attachment A to 4-9),
- Approve Jim Herbert to fill the Temporary Recreation Seat with a term set to expire at the January 2024 Board meeting or at the completion of the RFQ process, whichever comes first.

The Board took up a general discussion of the action requested.

Taylor added that although PWSRCAC adheres to OPA 90 as closely as possible, it is the opinion of PWSRCAC's legal counsel that PWSRCAC is not held to **all** OPA 90 requirements as it falls into the "alternative voluntary advisory group" category under the Act. However, to address the USCG's concerns, the intent is to run the RFQ process through the BGC in the interests of due diligence, as the Council previously had a recreation seat and tries to follow OPA 90 mandates as closely as possible. She pointed out that it had been eight years since PWSRCAC had a recreational seat on the Board, and at the end of the RFQ process if the BGC looks at the applications and determines there is not an organization that is a fit for PWSRCAC, then the Board could choose not to approve a permanent recreation seat. That information would be provided to the USCG with the due diligence that was conducted and the reasons why the Board felt it was not going to seat one at that time. Taylor pointed out that this temporary procedure was structured so both Jim Herbert's appointment and the temporary seat would sunset at the 2024 January Board meeting or at the conclusion of the RFQ process, whichever came first.



Wayne Donaldson asked for the BGC to revisit the bylaws with regard to sunseting the temporary seat provisions after the 2024 January Board meeting to keep the bylaws cleaner from that point on.

Amanda Bauer emphasized the importance of PWSRCAC's obtaining its USCG recertification, pointing out that the organization would be nothing without it, and addressing the USCG's concerns was very important to securing that recertification. She commended Taylor, legal counsel Joe Levesque, the Board Governance Committee, and all who worked expeditiously to address the issue in a short timeframe and to come up with a solution.

Shavelson questioned the need to waive Administrative Procedure 16-01, given that its language is permissive/discretionary, rather than mandatory. Taylor explained that staff is always aware of PWSRCAC's policies and procedures because when the organization has been audited in the past, particularly by Alyeska, that was where they looked. Because this issue had been such a fast moving process and an exception, it was more in the interest of due diligence, recordkeeping, and making sure PWSRCAC was properly justifying on the record how it did certain things and why, so in the event of an audit later, all the bases were covered.

Legal counsel Joe Levesque advised that the USCG lieutenant who was looking at the organization's recertification application really wants to see a designated recreation seat on the Council, and was adamant that OPA 90 compels PWSRCAC to have that seat to foster the goals of OPA 90, even while he recognized that PWSRCAC is an alternative group under the Act.

Cathy Hart, IEC member and former Board member who represented the Alaska Wilderness Recreation & Tourism Association as the recreation seat on the Council until they closed in 2014, said it was her belief that PWSRCAC really needed to have that recreation seat and needed to find an organization that is not only involved with Prince William Sound but also the other EVOS-affected communities. She hoped PWSRCAC would take the time to find the right organization.

Taylor said staff was already compiling a list of organizations to receive the RFQ and welcomed additional suggestions from Board and committee members, and their participation in the process. After this meeting, BGC will take the lead on this issue, with KJ Crawford as the staff lead. She emphasized that a solid RFQ would be important to getting good applicants.

Following the discussion, the Board took the following actions:

Amanda Bauer **moved to waive** Administrative Procedure 16-01 "Consideration of an Entity for the PWSRCAC Board of Directors" for the Temporary Recreation Seat. Bob Shavelson **seconded** and **the motion carried** without objection.

Michael Vigil **moved to approve the proposed amendment** to Section 2.2.1 of the PWSRCAC Bylaws to add *Temporary Recreation Seat* to the list of Class I Membership. Amanda Bauer **seconded**. A **roll call vote** was taken:

Robert Archibald	Yes.
Amanda Bauer	Yes.
Robert Beedle	Yes.
Mike Bender	Yes.
Nick Crump	Yes.
Ben Cutrell	Yes.
Wayne Donaldson	Yes.
Mako Haggerty	Yes.
Luke Hasenbank	Yes.
Dave Janka	Yes.
Melvin Malchoff	Yes.
Dorothy Moore	Yes.
Bob Shavelson	Yes.
Angela Totemoff	Yes.
Michael Vigil	Yes.
Aimee Williams	Yes.
Kirk Zinck	Yes.

The **motion passed** unanimously by 2/3<sup>rd</sup> vote (17 in favor; none opposed).

Amanda Bauer **moved to approve the proposed amendment** to Section 3.2 of the PWSRCAC Bylaws to add the following language: *The Board of Directors may appoint an entity or individual to serve as a Class I or Class II member on a temporary basis, on terms and conditions as may be determined by the Board, by action of the Board as provided in this section.* David Janka **seconded**. A **roll call vote** was taken:

Robert Archibald	Yes.
Amanda Bauer	Yes.
Robert Beedle	Yes.
Mike Bender	Yes.
Nick Crump	Yes.
Ben Cutrell	Yes.
Wayne Donaldson	Yes.
Mako Haggerty	Yes.
Luke Hasenbank	Yes.

Dave Janka	Yes.
Melvin Malchoff	Yes.
Dorothy Moore	Yes.
Bob Shavelson	Yes.
Angela Totemoff	Yes.
Michael Vigil	Yes.
Aimee Williams	Yes.
Kirk Zinck	Yes.

The **motion passed** unanimously by 2/3<sup>rd</sup> vote (17 in favor; none opposed).

Amanda Bauer **moved to confirm the appointment** of Jim Herbert to fill the Temporary Recreation Seat as a Class I member with a term set to expire at the January 2024 Board meeting or at the completion of the Request for Qualifications process, whichever comes first. Angela Totemoff **seconded** and **the motion passed without objection.**

Brooke Taylor reminded everyone that the public comment period on PWSRCAC’s recertification application would end February 8, 2023, and that it was important for all interested parties to send in their letters of support, especially the organization’s member entities.

*Break: 2:35 p.m. – 2:45 p.m.*

**ADEC UPDATE ON ARTICLE 4 OIL DISCHARGE PREVENTION AND CPLAN REGULATIONS**

ADEC’S Spill Prevention & Response Division Director, Tiffany Larson, updated the Board on ADEC achievements in 2022.

She reported that the division had accomplished much in the past year to increase transparency, information availability, process improvements, and regulatory improvements. Examples of those improvements were:

- Launch of an online spill reporting tool.
- Launch of the c-plans notifications listserv which is open to all subscribers.
- Creation of a single c-plan inbox for plan amendments. It is a single point of submission for all plans.
- Modifications on the website to the c-plan document review. Now only the current c-plan and its associated documents will appear. (Historical information and documents will still be available through a FOIA process.)

Larson continued her remarks with a review of the Article 4 updates and amendments:

- Larson gave kudos to SPAR staff who worked on this project.
- The Article 4 revisions were filed by the Lieutenant Governor on January 6, 2023, and will become effective on February 5, 2023. She encouraged PWSRCAC to go to the webpage for more information, where there are two videos to watch as well as other information, including training and tools to help navigate the new regulations. Also coming in the near future will be the exercise requirements for planholders, exercise requirements for streamlined planholders, the plan application process, and the plan review process.
- All the public comments on the new regulations are also available on the webpage, as well as ADEC's response. The review team has been asked to revisit the public comments that were designated as "out of scope" of this current regulation package to see if there is something that SPAR should address in a separate regulations package in the future.
- The most notable revisions, according to Larson, are as follows:
  - Addition of a new section 102 that outlines a 180-day transition phase for moving to the new regulations.
  - Retained the current requirement for who can sign a c-plan under Section 75.408.
  - Removed the requirements for exploration production facilities to have their well blowout c-plans approved by the AOGCC.
  - Adopted the Wildlife Protection Guidelines for oil spill response in Alaska by reference.
  - Clarified that documents must be available for inspection at regulated facilities.
  - Removed the requirements for oil terminal facilities to maintain verification logs for five years.
  - Restructured the Best Available Technology section for clarity.
- She noted that the regulation changes are substantial and the impact to planholders is substantial in what they need to change in their existing plans, and the formatting in particular. The 180-day delay in implementation of the new regulations is to give the planholders time to make the changes they need to make and to enable a smooth transition to the new regulations.
  - All applications that were submitted or will be submitted by February 5 will not need to be resubmitted.
  - Starting February 5, all minor amendments, routine updates, vessel additions, and applications will be processed under the new provisions.
  - New, renewal, and major amendment applications submitted on February 5 or before August 4, 2023, will be processed under the current regulations. Plan applicants may ask for ADEC to review their applications

under the new regulations and ADEC will do that, but approval will then be issued under the new provisions. There will be no hybrid reviews/approvals.

- Starting August 4, 2023, all plan applications must comply with the new provisions.
- If a currently approved plan is scheduled to be submitted for renewal in 2025, it must be fully updated to reflect the new Article 4 provisions. Until then, the planholder is not required to amend their plan unless there is an operational or business need to do so.
- There are 10 specific provisions that are not required to be updated until a currently approved plan is renewed or a major amendment related to those specific provisions is submitted on or after August 4 (details are on the website).
- Oil spill response exercise requirements were updated to specify minimum exercise requirements for all approved plans: all plans must be exercised a minimum of one time in each five-year plan review cycle. If that plan covers multiple facilities, each facility is not required to have an exercise. The department may conduct one additional exercise in every 12-month period for each plan. In order to count for those requirements, the exercise must be operations based, and it must include the department's participation in the planning, conduct, and evaluation. Larson emphasized that these provisions highlight that the department will be involved in oil spill response exercises at least once every five years, and if the planholder does not hit the mark, the department will be involved more than that.

In conclusion, Larson briefly reported on SPAR staffing levels. She pointed out the investment of much time and effort by the department to train and retain its staff. Larson reported that the retention rate in calendar year 2022 was 84%, compared to 71% in 2021, and the agency promoted from within in many instances. SPAR was now leading the entire ADEC department in retention.

Following her update, Larson answered questions and comments from the Board:

Bob Shavelson questioned the removal of AOGCC's review of well blowout plans from the regulations. ADEC's Rebecca Spiegel stated that AOGCC had opened their own public comment period but they were not ready in time to be included in SPAR's Article 4 revisions. SPAR will revisit this issue later.

Shavelson pointed out that when Commissioner Brune came to the Council's meetings at the beginning of the Article 4 scoping process, he assured the Council there would be no diminution of oil spill prevention and response in any changes to Article 4, but under these new regulations PWSRCAC has been removed as a reviewing body, there is no

longer a best available technology (BAT) conference requirement, and the response exercises are going from two per year to one every five years. He stated that those changes were rollbacks on protections in his opinion and a step backwards in environmental protections, and he asked Larson what her three most important changes were that will make prevention/response better in Alaska under these new provisions. Larson responded that clarity of regulations by aggregating the two sections (of planholders and plan reviewers) into one will alleviate confusion; moving into modern day with the access of information and broadened public access; and maintaining environmental protections in what could be perceived as a challenging time to do that. She commented that the BAT conference was eliminated because it was not getting the response or the information that was expected and it was costly to put on.

In response to a question from Amanda Bauer about whether Larson was comfortable with general funds being used to fund SPAR, Larson responded that she was. She added that historically the perception has been that SPAR had to be funded wholly by the 470 Fund, which is good when production is high and there is plenty of money coming in, but when production is low, those general funds show the Administration's willingness to step in to support the division to prevent further cuts to its budget. If the general fund infusion goes away in the future, she hoped it would be counterbalanced by increases in the refined fuels surcharge, or an increase in the per barrel tax, etc.

In response to a question from Jim Herbert about empty positions within the division, Larson stated that there was still a turnover rate, but she was satisfied with the staffing level at the present time.

Herbert also asked about the rationale of removing the RCACs from the regulations since both are recognized as reviewing entities under OPA 90. Larson stated that the intent of the regulation overhaul was to streamline the information available to everyone and make it more accessible. She pointed out that the RCACs are already recognized and their existence codified in federal regulations, not in state regulations.

Robert Beedle emphasized to Larson the importance of the PWSRCAC as his voice as a fisherman in Prince William Sound and he questioned the logic behind removing the RCACs as reviewers. He also questioned the logic of reducing the required number of response exercises from two a year to one every five years.

Mako Haggerty asked how many unannounced exercises were planned for 2023 and whether ADEC had done any economic analysis of the regulatory changes. Larson stated the work plan for 2023 exercises was not due until the end of January and she did not yet have that information. As to an economic analysis, one had not been done on the impact of the regulatory changes.

Haggerty asked about monies coming back to SPAR through cost recovery from polluters. Larson pointed out that while ADEC does do cost recovery for its costs and expenses, civil penalties assessed to a polluter go to the general fund; they do not go back directly to the agency.

Haggerty also questioned the logic of not holding a BAT conference annually and how ADEC/SPAR will keep up with the technology for oil spill prevention and response. Larson stated that the agency has a list of known providers who reach out to the agency with information, and there are personnel within the agency's prevention work group who do the research and the information is shared across the programs, obviating the reason to hold the conference anymore.

In answer to a question from Haggerty with regard to the impacts of PFAS on ADEC's funds and budget, Larson stated that PFAS itself was not draining ADEC funds at that time, but it is an upcoming contaminant that is of concern nationally, as well as in Alaska, and ADEC is looking at ways to address it. Alaska is the only state in the nation that has already promulgated ground water and soil cleanup levels. This has a price tag to the state, but it is worth it to protect human health and the environment. She noted that there are federal funds available in the recent congressional budget that can be directed towards PFAS across the nation. There is a lot more nationwide spotlight on PFAS and money coming at the problem, and there are also some Brownfields monies coming in. Haggerty pointed out that while PFAS contamination is a concern to everyone, as far as PWSRCAC is concerned its long-term remediation is a distraction from SPAR's mission.

Wayne Donaldson expressed his concern with the rollbacks in the exercise requirements in Prince William Sound, specifically, and he was particularly concerned about how removing PWSRCAC from the regulations was not seen as a diminishment of protection in the area. He asked Larson to get back to the Council at its May meeting with an explanation.

Bob Shavelson brought up prevention credits and asked why ADEC gives a prevention credit for something that Alyeska is already required to do under the regulations. ADEC's Graham Wood explained that in the early 1990s when the earlier regulations were developed, prevention credits were a way to compel producers to build secondary containment. They simply have not gone away. They are a tool ADEC can use to compel companies to comply with secondary containment, and ADEC has taken those credits away from companies in the past where there was gross noncompliance with secondary containment regulations. ADEC's Rebecca Spiegel pointed out that prevention credits were in the list of out-of-scope comments that ADEC will be revisiting that Larson spoke of earlier.

Herbert pointed out to Larson that the Board had voted earlier in this meeting to extend the contract of Dr. Craig Benson who is looking at Alyeska's secondary containment liner at the VMT. The contract extension will allow Dr. Benson to interact with ADEC and others on that issue and he hoped ADEC was willing to listen to Dr. Benson's findings.

*(This was an information-only item. No action was requested of the Board.)*

#### **4-5 REPORT ACCEPTANCE: FORAGE FISH SURVEY**

Project Manager Dr. Danielle Verna introduced this agenda item which sought Board acceptance of a final report titled "2022 Prince William Sound Forage Fish Observations" by Dr. Scott Pegau of the Prince William Sound Science Center. Dr. Pegau conducted aerial surveys of forage fish throughout Prince William Sound in June 2022 to identify locations where forage fish congregate and may be impacted by an oil spill.

Dr. Pegau presented the final results of aerial surveys he conducted in June 2022 looking along the coastline trying to see the forage fish. His report describes the methods and results of the survey with comparison to prior survey years. This was the fourth and final expected year for this project, with previous surveys occurring in 2019-2021.

Amanda Bauer **moved to accept** the report titled "2022 Prince William Sound Forage Fish Observations" by Dr. Scott Pegau of the Prince William Sound Science Center dated November 28, 2022, as meeting the terms and conditions of Contract 9511.22.01, and for distribution to the public. Jim Herbert **seconded** and **the motion passed** without objection.

#### **EXECUTIVE SESSION**

Amanda Bauer **moved to go into executive session** to discuss the following items:

- Alyeska Contract Funding Addendum Renewal (Thursday session).
- Annual Review: Executive Director job description and performance goals (Thursday session).
- Project 5053 VMT System Integrity and Safety Culture (Friday session).

Michael Vigil **seconded** and **the motion passed** without objection.

The following were invited to join the Board in the executive session:

Executive Director Donna Schantz (Thursday as needed, and Friday); Director of Programs Joe Lally (Thursday as needed, and Friday); Financial Manager Ashlee Hamilton (Thursday as needed, and Friday); Director of Communications Brooke Taylor (Thursday as needed, and Friday); Director of Administration KJ Crawford (Thursday as needed, and Friday); Program Manager Linda Swiss (Friday); Executive Assistant Jennifer Fleming (meeting support - Thursday as needed, and Friday); federal legislative monitor Roy Jones (Friday); state legislative monitor Gene Therriault (Friday); legal counsel Joe Levesque (Friday).



The Board went into executive session at approximately 4:20 p.m. and recessed at 5 p.m. until the following day at 8:30 a.m.

**Recess:** The open session of this Board meeting recessed 4:15 p.m. until Friday, January 27, following a scheduled continuation of the executive session.

### **Friday, January 27, 2023**

#### **EXECUTIVE SESSION (Continued)**

A continuation of the executive session commenced at 8:30 a.m. to discuss specifically Project 5053 VMT System Integrity and Safety Culture. The executive session ended at approximately 9:25 a.m.

#### **CALL BACK TO ORDER**

President Robert Archibald called the meeting back to order at 9:50 a.m. on January 27, 2023. A roll call was taken. There were 16 Directors present at the time of the call back to order: Archibald, Bauer, Bender, Crump, Cutrell, Donaldson, Haggerty, Hasenbank, Herbert, Janka, Malchoff, Moore, Shavelson, Vigil, Williams, and Zinck. (Robert Beedle joined the meeting via videoconference at approximately 10:00 a.m.)

#### **REPORT ON EXECUTIVE SESSION**

President Archibald reported that the Board met in executive session as scheduled and discussed the items outlined on the executive session agenda and had the following report:

- **Alyeska Contract Funding Addendum Renewal:** Amanda Bauer reported the Board had discussed the renewal of Alyeska's contract funding addendum and had directed President Archibald and Executive Director Schantz to start negotiations with Alyeska on that renewal.
- **Annual Review of the Executive Director's Job Description and Performance Goals:** President Archibald reported that the Executive Director's job description and performance goals were discussed. The Board will continue with the current method it has been using. At the Board's next meeting in May, if there are Board members who wish to look into revising that system, an *ad hoc* committee can be appointed at that time.
- **Project 5053 VMT System Integrity and Safety Culture.** President Archibald reported that the Board discussed Billie Garde's report under Project 5053 and the timing of its acceptance and release under the VMT System Integrity and Safety Culture project but determined not to take action at this time.

*[Robert Beedle joined the meeting via video conference at approximately 10:00 a.m. – 17 Directors present.]*

#### **4-7 REPORT APPROVAL OF LONG RANGE PLAN 2024-2028**

KJ Crawford provided an overview of the Long Range Planning (LRP) process and presented the draft Five-Year LRP June 2024-2028 for approval. An updated draft of the LRP was provided under Item 4-7 in the meeting notebook. A workshop was held on Wednesday at which the Board, committee, and staff members attended to discuss the draft plan and develop a recommendation for Board approval.

Amanda Bauer **moved to approve** the Five-Year Long Range Plan for Fiscal Years 2024–2028, as developed and finalized for consideration by the Board at the January 25, 2023 Long Range Planning work session. Jim Herbert **seconded** and **the motion passed** without objection.

#### **4-6 APPROVAL OF DISPERSANTS USE POSITION SUPPORTING MATERIALS**

Dr. Danielle Verna, PWSRCAC Project Manager, introduced this agenda item which sought Board acceptance of a document titled “PWSRCAC Dispersant Use Position Supporting Materials” by Elise DeCola of Nuka Research and Planning Group, LLC, dated December 2022. The document was designed to support the Council’s updated position on the use of chemical dispersants in Prince William Sound and the Exxon Valdez oil spill affected region. The Council’s updated position was adopted at its September 2022 Board Meeting and does not support the use of chemical dispersants in Prince William Sound or the Exxon Valdez oil spill affected region. The supporting materials were designed to aid in the communication and dissemination of the Council’s position to industry, regulators, stakeholders, and partners prior to and during an oil spill incident.

Dr. Verna introduced Elise DeCola of Nuka Research and Planning Group, LLC, who recapped the project and the approval of the updated position statement that the Board engaged in at the September 2022 Board meeting. The purpose of the supporting materials is to succinctly deliver science-based evidence that aids in communicating the rationale for the Council’s position. In the document, each of the four key points of the Council’s position on dispersants is supported by a brief review of peer-reviewed literature with citations. A detailed briefing sheet and the report were included in the meeting notebook under Item 4-6.

A general discussion followed the report’s presentation.

OSRI’s Scott Pegau said he realized that this report was designed to support the Council’s stated position against the use of dispersants, but he expected a more balanced report. He was concerned, as a scientist, that this was an instance of coming up with a position and then finding the science to support it, and he found the report

highly biased. He said his personal opinion is that dispersants have their place and should be used when necessary.

President Archibald countered that PWSRCAC went through an arduous process with leaders in the field to ensure PWSRCAC provided accurate science.

Bob Shavelson said he appreciated Pegau's personal opinion but pointed out that Exxon makes the dispersant COREXIT and there is a vast amount of information generated by the entities who want to profit off dispersants and use them, so as a relatively small citizen organization PWSRCAC is simply trying to put out some information that might call into question the assumptions that dispersants are safe. He added there is strong science that when one combines oil with dispersants and drives it into the water column there are a lot of instances where it is more toxic than the oil itself. He said PWSRCAC should be proud of its work on this issue and this report provides the balance that PWSRCAC was created to provide in a debate where industry and industry scientists drive the message.

Executive Director Schantz took exception to Dr. Pegau's comment that PWSRCAC went after only the science that justified its stated position. She emphasized that PWSRCAC looked at a lot of the science in developing its position and this report simply came after the fact. She also emphasized that PWSRCAC always strives to use peer-reviewed science because there is a lot of science out there that is not peer reviewed.

Amanda Bauer **moved to accept** the document titled "PWSRCAC Dispersant Use Position Supporting Materials" by Elise DeCola of Nuka Research and Planning Group, LLC, dated December 2022, as meeting the terms and conditions of Contract 9550.22.01, and for distribution to the public. Michael Vigil **seconded** and **the motion passed** without objection.

#### **4-3 REVIEW OF PROPOSED CHANGES TO THE REGIONAL STAKEHOLDER COMMITTEE**

Project Manager Jeremy Robida updated the Board on the proposed changes to the Regional Stakeholder Committee (RSC). A detailed briefing sheet was included in the meeting notebook as Item 4-3.

He explained how the RSC helps foster a working relationship between incident leadership and those directly affected by an incident, and offers a way to bring local knowledge, concerns, and potentially locally available resources into a response. Language describing the RSC is currently found in the Regional, PWS, and AWA Area Plans. The Council has long been an advocate for the RSC model, and has witnessed through tanker plan exercises how useful, valuable, and important this stakeholder engagement process can be in building trust and working relationships between response decision makers and affected stakeholders.

Robida reported that the Alaska Regional Response Team (ARRT) instituted a task force that began meeting with the Council and others in August of 2022, with the goal of creating a job aid to explain the RSC concept and process and create consistency across Alaska. The proposed job aid uses language that is more flexible than the current Prince William Sound Area Plan language. PWSRCAC staff is concerned this flexibility may degrade the RSC process. Proposed changes are similar to those sought in 2016 (which were ultimately withdrawn based on significant opposition received during task force meetings) in that with this more flexible language, there is less guaranteed access to the UC and Incident Action Plan documentation.

Robida outlined in more detail the proposed changes in the RSC process and compared that to the current PWS Area Plan language. He reported that the task force meetings would continue, that it had been a good work group so far, and staff remained committed to the process and to capture areas of alignment, dissenting opinions, and disagreements.

Mary Goolie of the EPA explained how the job aid would be used and given to liaison officers in an incident.

Schantz pointed out that there has yet to be an RSC stood up in a real event.

Steve Lewis spoke of the importance of the liaison officer position as being critical to the two-way flow of information. He emphasized that the liaison officer coming into that position needed to have previous local knowledge. For example, a liaison officer coming from out of state or out of region may not have seen snow before or have experience with indigenous people. Being handed a piece of paper with job descriptions would not work nearly as well as having a liaison officer who has previous local knowledge. He urged everyone involved in the task force working on this issue to bear that in mind, especially the people who will be assigning the liaison officers to their positions.

*(This was an information-only item. No action was requested of the Board.)*

#### **4-4 REPORT ACCEPTANCE: PORT VALDEZ WEATHER BUOY DATA ANALYSIS 2019-2021**

Project Manager Roy Robertson introduced this agenda item which sought Board acceptance of the report titled "Port Valdez Weather Buoy Analysis 2019-2021" by Robert W. Campbell, Ph.D., of the Prince William Sound Science Center dated December 7, 2022 (Item 4-4 in the meeting notebook).

Robertson explained that PWSRCAC installed two weather buoys in Port Valdez in 2019, one in the vicinity of the VMT and the other near the Valdez Duck Flats. The buoys are expected to collect weather data for at least five years. This project is the second of potentially five projects that would take data collected in each of the five years and perform analysis to determine any weather trends throughout the year and seasonally

at the location of the buoys. Dr. Campbell was contracted to analyze the weather buoy data collected from 2019-2021 and provide a report of his findings.

Robertson introduced Dr. Campbell who presented his report to the Board.

Steve Lewis commented that the information the buoys have provided and continue to provide has proven invaluable operationally, in terms of PWSRCAC's information and awareness and to industry in terms of their operation. He emphasized the importance of fostering this kind of collaboration and acceptance openly by everybody who is involved in the VMT's operation. He encouraged those new to PWSRCAC to look at the history of these buoys with respect to policy going forward.

Amanda Bauer **moved to accept** the report titled "Port Valdez Weather Buoy Data Analysis 2019-2021" by Robert W. Campbell, Ph.D., of the Prince William Sound Science Center dated December 7, 2022, as meeting the terms and conditions of the Contract 6536.22.01, and for distribution to the public. Ben Cutrell **seconded** and **the motion passed** without objection.

#### **4-8 INCIDENT REPORT UPDATE FOR 2022**

Project Manager Assistant Nelli Vanderburg presented a summary of incidents reported to PWSRCAC that occurred in 2022. Incident reports include oil spills, fires, equipment malfunctions causing shutdowns, navigational closures, and tanker or escort incidents. The presentation included terminal and tanker statistics.

*(This was an information-only item. No action was requested of the Board.)*

*Lunch Recess: 11:45 a.m.– 1:00 p.m.*

*(Melvin Malchoff left during lunch recess – 16 Directors present.)*

#### **For the Good of the Order**

President Archibald introduced attorney Cheryl McKay who had recently joined the Levesque Law Group and would be working on PWSRCAC matters from time to time. She introduced herself to the Board with a brief overview of her background and professional experience.

#### **CONSIDERATION OF CONSENT AGENDA ITEMS**

##### **3-1 APPROVAL OF MARINE INVASIVE SPECIES SURVEY SOLE SOURCE CONTRACT**

*[Item 3-2 in the meeting notebook]*

Mako Haggerty explained that while he supported the action item and would vote to approve it, the reason he pulled it from the consent agenda was because he wanted the opportunity to voice his opinion that PWSRCAC should take a supportive role and let

another organization take the lead on something like invasive species, such as one of the fishermen's organizations in Prince William Sound, because fishermen would have the most to lose from an invasion of non-indigenous marine species. He also pointed out that PWSRCAC's area of purview is limited to Prince William Sound when invasive species is a statewide issue.

Michael Vigil remarked that the Smithsonian Environmental Research Center had recently contacted Chenega for permission to deploy settlement plates in and around Tatitlek and Chenega. PWSRCAC's Dr. Danielle Verna reported that the Smithsonian's approach to Chenega was at PWSRCAC's request. They will deploy plates in the spring and retrieve them in the fall. She added that there is a grassroots effort to monitor for invasive species across Alaska and PWSRCAC is part of that effort, and while PWSRCAC is taking the lead in its region, it is part of this broader network. She also pointed out that there are not a lot of ADF&G resources to take ownership of this type of project, so PWSRCAC is doing its part in its region and it is valuable to the overall statewide monitoring effort.

Robert Beedle pointed out that PWSRCAC's concern is about what may come into the Sound through tanker ballast, etc.

Amanda Bauer **moved** to authorize a budget modification from the contingency fund to project 9520 Marine Invasive Species in the amount of \$8,645 for FY2023 contract expenses; and to authorize the Executive Director to enter into a sole source contract with the Smithsonian Environmental Research Center for the project Marine Invasive Species Broadscale Survey in Prince William Sound in an amount not to exceed \$60,254. Mako Haggerty **seconded** and **the motion passed** without objection.

#### **PRESIDENT'S REPORT TO THE BOARD**

President Archibald expressed appreciation to all the volunteers that make up the Council for their dedication to the Council's mission.

He reminded everyone of the importance of maintaining infrastructure such as the VMT, pipelines, and tankers, and if properly maintained they will continue to operate well into the future, but if not maintained and taken care of they will break down and fail.

#### **EXECUTIVE DIRECTOR'S REPORT TO THE BOARD**

(A written Executive Director's report was submitted to the Board earlier in the week.)

Executive Director Schantz spoke of PWSRCAC's role as an "alternative voluntary advisory group" under OPA 90 which, while not required, does try to follow OPA 90 in many respects. She also spoke of some of the language of OPA 90 not being as clear as it could be, such as the intent that PWSRCAC should develop long-term partnerships with government and industry while at the same time providing critical feedback,

especially during times of serious reductions in staffing, resources, and budgets for those entities. She noted it was a delicate balancing act to foster those partnerships while preventing government and industry complacency.

She revisited the discussion of the previous day with ADEC's Tiffany Larson on the Article 4 regulation changes and took exception to Larson's comments that there will be no reduction in prevention or protection of the environment in Prince William Sound. She pointed out that the regulation changes have reduced protection of the environment by the following changes:

- The number of drills and exercises are reduced from two per year to a maximum of one every five years, with the option of adding one more. Schantz commented that ADEC simply does not have the level of resources or leadership support to allow for the maximum.
- Removal of an ADEC enforcement tool. It eliminated the requirement for c-plans to show compliance with applicable state and federal training programs.
- JPO and BLM also show diminishment. In 1995 a General Accounting Office (GAO) report concluded there were 84 staff in the JPO and BLM had significant oversight responsibility of TAPS at that time. Currently, there is no lead JPO coordinator and there are approximately 25 staff in the JPO, and each agency seems to operate independently of each other. Schantz stated that approximately 12 years ago the BLM office in Valdez included six personnel, consisting of engineers, operations, and maintenance specialists. Currently there is only one. The BLM engineering department between Fairbanks, Anchorage, and Valdez has gone except for one, and there used to be three oil spill specialists and now there is only one.

She surmised that if a spill were to occur the next day in Prince William Sound, PWSRCAC could write the report right now on what happened (i.e., the result of budget cuts, reduced staffing, reduced regulatory oversight, budget cuts within industry, loss of institutional knowledge, loss of engineering and technical specialists). All of these reductions increase risk.

She emphasized that if PWSRCAC was to be effective in preventing complacency it was important to garner people's attention to the increased risk from all the reductions in regulation before it is too late and there is another spill.

### **FINANCE REPORT**

Financial Manager Ashlee Hamilton reported that the new accounting system Sage Intacct went live on October 1, 2022. Much of her time had been spent working with the new system, generating reports, and working with Sockeye Consulting personnel on the new system. The transition was successful and it had been met with positive reviews by staff. All the historical information from 2021 and 2022 was successfully migrated to the

new system. She will continue to have ongoing meetings with PWSRCAC's Sockeye Consulting representatives monthly to ensure the system is operating smoothly.

Hamilton anticipated another mid-year meeting with project managers to review projects and highlight any funding changes that have taken place. She will then schedule a Finance Committee meeting for late February to look at any budget modifications as well as the December 31, 2022 financial statements which were ready to be presented.

She reported that the software conversion and implementation of Paychex for payroll processing had gone smoothly. It allows streamlined processing of payroll and leave tracking and works well with the new accounting software.

Hamilton was also working on the IRS 2022 Form 990. All the information was delivered to BDO to prepare the return and it will be on the agenda for approval at the May Board meeting. It was on extension and will be due on May 15, 2023.

She reported that all W2s and 1099s for 2022 were mailed to recipients and submitted to the IRS, and she submitted all the documents for the workers' compensation audit and was awaiting a response from the auditor.

Going forward in 2023, Hamilton reported she would be working on the FY2024 budget and cleaning up the old contract files, uploading them to electronic format so they are accessible by both offices. She will also be working on creating job aids for both new software systems to aid in future staff training.

### **CLOSING COMMENTS**

Directors were given the opportunity to make closing comments.

### **ADJOURNMENT**

There being no further business to come before the Board, the meeting was adjourned at 2:25 p.m. on a **motion made** by Mako Haggerty, **seconded**, and **passed** by **unanimous consent**.

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Secretary



**Prince William Sound Regional Citizens' Advisory Council  
Special Board of Directors Meeting Minutes  
March 14, 2023**

**Members Present:** Robert Archibald, Amanda Bauer, Robert Beedle, Ben Cutrell, Wayne Donaldson, Mako Haggerty, Luke Hasenbank (9:02am), Jim Herbert, Elijah Jackson, Dave Janka, Melvin Malchoff, Dorothy Moore, Bob Shavelson, Michael Vigil, Kirk Zinck

**Members Absent:** Mike Bender, Nick Crump, Patrick Domitrovich, Angela Totemoff, Aimee Williams

**Staff Present:** Jennifer Fleming, Donna Schantz, Joe Lally, Ashlee Hamilton, Maia Draper-Reich, KJ Crawford, Danielle Verna

**Call to Order:** President Archibald called the meeting to order at 9:00am. A roll call was taken. The following 14 directors were present, representing a quorum for the conduct of business: Archibald, Bauer, Beedle, Cutrell, Donaldson, Haggerty, Herbert, Jackson, Janka, Malchoff, Moore, Shavelson, Vigil, and Zinck.

**Approve Agenda**

Haggerty moved to approve the agenda as presented. Bauer seconded. Archibald asked for objection; hearing none, the agenda was approved.

*Hasenbank joined the meeting at 9:02am.*

**Public & Opening Comments**

Archibald asked if there were any public or opening comments. Shavelson wished Archibald a happy 75<sup>th</sup> birthday and thanked him for his leadership as president of the organization.

**Consent Agenda to Approve:**

Zinck moved to approve the consent agenda as follows:

**Participation in May 2 Youth Involvement Bligh Reef Expedition**

Authorized the additional expenditure of an estimated \$215 per person for Council volunteers to attend the May 2, 2023 youth Involvement Bligh Reef Expedition in Valdez.

**Approval of Resolution Increasing MasterCard Account at FNBA**

Adopted the attached corporate resolution provided by First National Bank Alaska authorizing an increase in the total credit limit for the Council's Mastercard account to \$80,000.

**Approval of Travel for President Archibald to Anchorage**

Approval of costs for President Robert Archibald to travel to Anchorage on March 16 to meet with Alyeska Interim President Betsy Haines in an approximate amount of \$500.

Donaldson seconded. Archibald asked for objection; hearing none, the consent agenda was approved without objection.

**Approval of IRS Form 990**

Hamilton introduced the item explaining this is the annual filing with the IRS required by tax exempt organizations for the tax year ending in 2022. She explained that the Form 990 is due annually in November, but that an extension was filed, and the form is now due May 15 of this year. Hamilton explained that the Finance Committee reviewed the draft Form 990 in detail at its February 24, 2023 meeting and, after identifying two small corrections, recommend its approval.

Herbert explained he did not receive a copy of the draft Form 990 and will therefore abstain from voting at this time.

Bauer moved to authorize the Executive Director to sign the Form 990 on behalf of PWSRCAC and submit it to the IRS on or before May 15, 2023. Haggerty seconded. Archibald asked for objection; hearing none, the motion was approved.

**Executive Session to deliver Executive Director annual evaluation**

Vigil moved to enter into executive session to discuss and deliver the Executive Director's annual evaluation. Moore seconded.

*The Board entered into Executive Session at 9:07am. Donna Schantz was invited to join the Board in executive session at approximately 9:30am. The executive session ended at 10:00am.*

**Report on Executive Session and Resulting Actions**

Archibald reported that the Board reviewed the results of the Executive Director's evaluation and met with Schantz to deliver the results. He added that the Board came to the conclusion that Schantz is doing a fine job. Archibald added that the Board Governance Committee has been tasked with reviewing options for lengthening the period of the Executive Director's contract.

Shavelson moved to extend the Executive Director's contract for one year. Moore seconded. Archibald asked for objections; hearing none, the action was approved.

**Closing Comments**

Archibald asked for closing comments. Herbert wished Archibald and Schantz luck in preparation for their meeting with Alyeska leadership later in the week. He noted the new Alyeska president will likely be announced about the time of our May Board meeting and that the significance of the Alyeska Interim President and senior leadership meeting with Archibald and Schantz this week could influence how the Garde report ["Assessment of Employee Concerns Regarding the Valdez Marine Terminal"] would be received and potentially acted upon by the new president.

Fleming encouraged directors to complete their travel questionnaires in response to the May 2023 Board meeting and associated events in Valdez.

**Adjourn**

Moore moved to adjourn. The meeting adjourned at 10:07am.



**PWSRCAC**  
**Acronym List**  
 Updated July 10, 2019

<b>AAC</b>	Alaska Administrative Code
<b>ABS</b>	American Bureau of Shipping
<b>ACMP</b>	Alaska Coastal Management Program
<b>ACS</b>	Alaska Clean Seas
<b>ADEC</b>	Alaska Department of Environmental Conservation
<b>ADF&amp;G</b>	Alaska Department of Fish and Game
<b>ADNR</b>	Alaska Department of Natural Resources
<b>AIMS</b>	Alaska Incident Management System
<b>AMOP</b>	Arctic & Marine Oil Spill Program (Technical Seminar)
<b>ANC</b>	Anchorage
<b>ANS</b>	Alaska North Slope or Aquatic Nuisance Species
<b>ANSTF</b>	Aquatic Nuisance Species Task Force
<b>ANWR</b>	Arctic National Wildlife Reserve
<b>AOOS</b>	Alaska Ocean Observing System
<b>APSC</b>	Alyeska Pipeline Service Company
<b>ARRT</b>	Alaska Regional Response Team
<b>AS</b>	Alaska Statute
<b>ATC</b>	Alaska Tanker Company
<b>ATOM</b>	Alyeska Tactical Oil Spill Model
<b>AVTEC</b>	Alaska Institute of Technology (formerly Alaska Vocational Technical Center)
<b>BAT</b>	Best Available Technology
<b>BBL</b>	Barrel (42 Gallons = 1 bbl)
<b>BGC</b>	Board Governance Committee (PWSRCAC Committee)
<b>BTEX</b>	Benzene, Toluene, Ethylbenzene, Xylene
<b>BLM</b>	Bureau of Land Management
<b>BOO</b>	Barge of Opportunity
<b>BMPP</b>	Best Management Practices Plan
<b>BP</b>	British Petroleum or bollard pull
<b>BTT</b>	Biological Treatment Tanks
<b>BWT(F)</b>	Ballast Water Treatment (Facility)
<b>C-Plan</b>	Contingency Plan
<b>CAA</b>	Clean Air Act

<b>CAOS</b>	Coastal Alaska Observing System
<b>CDFU</b>	Cordova District Fishermen United
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>CIP</b>	Community Impacts Planning
<b>CIRCAC</b>	Cook Inlet Regional Citizens Advisory Council
<b>CISPRI</b>	Cook Inlet Spill Prevention and Response, Incorporated
<b>CMT</b>	Crisis Management Team
<b>COA</b>	Condition of Approval
<b>COSRS</b>	Community Oil Spill Response System
<b>COTP</b>	Captain of the Port (USCG)
<b>CWA</b>	Clean Water Act
<b>DAF</b>	Dissolved Air Flotation
<b>DEIS</b>	Draft Environmental Impact Statement
<b>DES</b>	Division of Emergency Services
<b>DMR</b>	Discharge Monitoring Report
<b>DNV</b>	Det Norske Veritas - Norwegian Quality Assurance consultant
<b>DOI</b>	U.S. Department of the Interior
<b>DOT</b>	U.S. Department of Transportation
<b>DPS</b>	Dynamic Positioning System
<b>DR&amp;R</b>	Dismantling, Removal and Restoration
<b>DTTS</b>	Disabled Tanker Towing Study
<b>DWT</b>	Deadweight ton
<b>ECO</b>	Edison Chouest Offshore
<b>EIA</b>	Environment Impact Assessment
<b>EIS</b>	Environmental Impact Statement
<b>EOC</b>	Emergency Operations Center
<b>EPA</b>	U.S. Environmental Protection Agency
<b>EPPR</b>	Emergency Prevention Preparedness and Response
<b>ERB</b>	Emergency Response Building
<b>ERP</b>	Emergency Response Plan
<b>ERV</b>	Emergency Response Vessel
<b>ETT</b>	Enhanced Tractor Tug
<b>EVOS</b>	Exxon Valdez Oil Spill

<b>EVOSTC</b>	Exxon Valdez Oil Spill Trustees Council
<b>FBU</b>	Fairbanks Business Unit, Alyeska
<b>FLIR</b>	Forward-looking infrared
<b>FOIA</b>	Freedom of Information Act
<b>FOSC</b>	Federal On-Scene Coordinator
<b>FV</b>	Fishing Vessel
<b>FWPca</b>	Federal Water Pollution Prevention and Control Act
<b>GAO</b>	U.S. Government Accountability Office
<b>GIS</b>	Geographic Information System
<b>GOA</b>	Gulf of Alaska
<b>GPS</b>	Global Positioning System
<b>GRS</b>	Geographical Response Strategies
<b>HAPs</b>	Hazardous Air Pollutants
<b>HAZWOPER</b>	Hazardous Waste Operation and Emergency Response
<b>HERO</b>	Hinchinbrook Entrance Response Options
<b>IAP</b>	Incident Action Plan
<b>IAP2</b>	International Association of Public Participation
<b>ICCOPR</b>	Interagency Coordinating Committee on Oil Pollution Research
<b>IC</b>	Incident Command
<b>ICS</b>	Incident Command System
<b>IEC</b>	Information & Education Committee (PWSRCAC Committee)
<b>IMO</b>	International Maritime Organization
<b>IMT</b>	Incident Management Team
<b>IOSC</b>	International Oil Spill Conference
<b>IRIC</b>	Initial Response Incident Commander
<b>ISAC</b>	Invasive Species Advisory Committee
<b>IWWS</b>	Industrial Waste Water System
<b>JIC</b>	Joint Information Center
<b>JPO</b>	Joint Pipeline Office
<b>LEPC</b>	Local Emergency Planning Committee
<b>LAC</b>	Legislative Affairs Committee (PWSRCAC Committee)
<b>LIO</b>	Legislative Information Office
<b>LOSC</b>	Local On-Scene Coordinator
<b>LRP</b>	Long Range Plan
<b>LTEMP</b>	Long Term Environmental Monitoring Program Project

<b>MAC</b>	Multi-stakeholder Agency Committee
<b>MARPOL</b>	International Convention for Prevention of Pollution from Ships
<b>MEPC</b>	Marine Environmental Protection Committee (IMO)
<b>MIS</b>	Marine Invasive Species
<b>MMS</b>	Minerals Management Service
<b>MOA</b>	Memorandum of Agreement
<b>MOU</b>	Memorandum of Understanding
<b>MSO</b>	Marine Safety Office
<b>MSDS</b>	Material Safety Data Sheets
<b>MSU</b>	Marine Safety Unit
<b>NDBC</b>	National Data Buoy Center
<b>NEPA</b>	National Environmental Policy Act
<b>NESHAP-OLD</b>	National Emission Standard for Hazardous Air Pollutants - Organic Liquid Distribution
<b>NIIMS</b>	National Interagency Incident Management System
<b>NIS</b>	Non-Indigenous Species
<b>NISA</b>	National Invasive Species Act
<b>NOAA</b>	National Oceanographic & Atmospheric Administration
<b>NOBOB</b>	No Ballast on Board
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>NPREP</b>	National Preparedness & Response Exercise Program
<b>NRDA</b>	Natural Resource Damage Assessment
<b>NSF</b>	National Science Foundation
<b>OCC</b>	Operations Control Center
<b>OHMSETT</b>	Oil and Hazardous Materials Simulate Environmental Test Tank
<b>OMS</b>	Oil Movements and Storage
<b>OPA 90</b>	Oil Pollution Act of 1990
<b>OSC</b>	On-Scene Coordinator
<b>OSLTF</b>	Oil Spill Liability Trust Fund
<b>OSRB</b>	Oil Spill Response Barge
<b>OSPR</b>	Oil Spill Prevention and Response Committee (PWSRCAC Committee)
<b>OSREC</b>	Oil Spill Region Environmental Coalition
<b>OSRI</b>	Oil Spill Recovery Institute
<b>OSRL</b>	Oil Spill Response Limited
<b>OSRO</b>	Oil Spill Response Organization

<b>OSRV</b>	Oil Spill Response Vessel
<b>PAH</b>	Polycyclic Aromatic Hydrocarbon
<b>POD</b>	Physical Oceanography Data
<b>POVTS</b>	Port Operations and Vessel Traffic System (PWSRCAC Committee)
<b>PPE</b>	Personal Protective Equipment
<b>PRAC</b>	Primary Response Action Contractor
<b>PRT</b>	Prevention and Response Tug
<b>PS</b>	Pump Station
<b>PV</b>	Power Vapor
<b>PWS</b>	Prince William Sound
<b>PWSAC</b>	Prince William Sound Aquaculture Corporation
<b>PWSC</b>	Prince William Sound College
<b>PWSEDD</b>	Prince William Sound Economic Development District
<b>PWSRAS</b>	Prince William Sound Risk Assessment Study
<b>PWSRCAC</b>	Prince William Sound Regional Citizens' Advisory Council
<b>PWSSC</b>	Prince William Sound Science Center
<b>PWSTA</b>	Prince William Sound Tanker Association
<b>RC</b>	Response Center or Response Coordinator (SERVS)
<b>RCAC</b>	Regional Citizens' Advisory Council
<b>RCM</b>	Reliability Centered Maintenance
<b>RFAI</b>	Request for Additional Information
<b>RFI</b>	Request for Information
<b>RFP</b>	Request for Proposal
<b>RFQ</b>	Request for Qualifications
<b>RMROL</b>	Realistic Maximum Response Operating Limitations
<b>RPG</b>	Response Planning Group
<b>RP</b>	Responsible Party
<b>RPOSC</b>	Responsible Party's On-Scene Coordinator
<b>RPS</b>	Response Planning Standard
<b>RRT</b>	Regional Response Team
<b>RSC</b>	Regional Stakeholders Committee
<b>SAC</b>	Scientific Advisory Committee (PWSRCAC Committee)
<b>SCAT</b>	Shoreline Cleanup Assessment Team
<b>SERC</b>	State Emergency Response Commission (or) Smithsonian Environmental Research Center



<b>SERVS</b>	Ship Escort/Response Vessel System
<b>SETAC</b>	Society of Environmental Toxicology and Chemistry
<b>SOS</b>	Seldovia Oil Spill Response
<b>SOSC</b>	State On-Scene Coordinator
<b>SPAR</b>	Spill Prevention and Response (A division within ADEC)
<b>SPO</b>	State Pipeline Coordinator's Office
<b>SRP</b>	Scientific Response Plan
<b>ST</b>	Strike Team
<b>SWAPA</b>	Southwest Alaska Pilots Association
<b>TAG</b>	Technical Advisory Group
<b>TAPS</b>	Trans Alaska Pipeline System
<b>TF</b>	Task Force
<b>TOEM</b>	Terminal Operations & Environmental Monitoring (PWSRCAC Committee)
<b>TOO</b>	Tanker of Opportunity
<b>TROG</b>	Total Recoverable Oil and Grease
<b>TVCS</b>	Tanker Vapor Control System
<b>UC</b>	Unified Command
<b>UP</b>	Unified Plan
<b>USCG</b>	United States Coast Guard
<b>USF&amp;WS</b>	United States Fish & Wildlife Service
<b>VBU</b>	Valdez Business Unit, Alyeska
<b>VDZ</b>	Valdez
<b>VERP</b>	Prince William Sound Vessel Escort & Response Plan
<b>VEOC</b>	Valdez Emergency Operations Center
<b>VIDA</b>	Vessel Incidental Discharge Act
<b>VMT</b>	Valdez Marine Terminal
<b>VOCs</b>	Volatile Organic Compounds
<b>VOO</b>	Vessel of Opportunity
<b>VTC</b>	Vessel Traffic Center
<b>VTS</b>	Vessel Traffic System
<b>XCOM</b>	PWSRCAC Executive Committee

**Prince William Sound Regional Citizens' Advisory Council  
z Budget Status Report**

	Original Budget	Budget Modifications	Summary	Actual	Commitments	Total	Remaining Amount	Percentage Remaining
All Tasks								
1000 - General & Administrative	538,738.00	-	538,738.00	343,454.71	(100.00)	343,354.71	195,383.29	36.27 %
1050 - General & Administrative - Anchor- age	153,486.00	-	153,486.00	105,762.33	-	105,762.33	47,723.67	31.09 %
1100 - General & Administrative - Valdez	158,044.00	-	158,044.00	113,162.53	-	113,162.53	44,881.47	28.40 %
1300 - Information Technology	108,128.00	22,500.00	130,628.00	87,005.67	-	87,005.67	43,622.33	33.39 %
1350 - Information Technology - Volun- teers	500.00	(500.00)	-	-	-	-	-	-
2100 - Board Administration	126,630.00	(2,952.00)	123,678.00	82,885.25	448.00	83,333.25	40,344.75	32.62 %
2150 - Board of Director Meetings	145,000.00	(6,588.00)	138,412.00	72,361.77	174.25	72,536.02	65,875.98	47.59 %
2222 - Finance Committee	-	2,000.00	2,000.00	2,241.06	-	2,241.06	(241.06)	(12.05) %
2250 - Committee Support	193,784.00	(11,961.86)	181,822.14	132,123.03	308.00	132,431.03	49,391.11	27.16 %
2300 - Oil Spill Prevention & Response (OSPR)	6,600.00	3,611.70	10,211.70	8,985.30	-	8,985.30	1,226.40	12.01 %
2400 - Port Ops & Vessel Traffic System (POVTS)	6,600.00	(3,300.00)	3,300.00	1,064.00	-	1,064.00	2,236.00	67.76 %
2500 - Scientific Advisory Committee (SAC)	10,800.00	(2,360.00)	8,440.00	5,950.13	-	5,950.13	2,489.87	29.50 %
2600 - Terminal Ops & Envrn Monitoring (TOEM)	6,600.00	(3,300.00)	3,300.00	-	-	-	3,300.00	100.00 %
2700 - Legislative Affairs Committee (LAC)	18,175.00	-	18,175.00	-	-	-	18,175.00	100.00 %
2800 - Information & Education Commit- tee (IEC)	7,400.00	-	7,400.00	5,780.08	-	5,780.08	1,619.92	21.89 %
3100 - Public Information Program	6,485.00	(1,388.00)	5,097.00	353.99	1,112.66	1,466.65	3,630.35	71.23 %
3200 - Observer Newsletter	7,500.00	-	7,500.00	3,793.21	-	3,793.21	3,706.79	49.42 %
3300 - Annual Report	7,400.00	(2,949.56)	4,450.44	2,800.44	-	2,800.44	1,650.00	37.07 %
3410 - Fishing Vessel Program Comm Outreach	16,000.00	(10,000.00)	6,000.00	-	-	-	6,000.00	100.00 %
3500 - Community Outreach	50,175.00	(6,063.00)	44,112.00	18,162.48	358.01	18,520.49	25,591.51	58.01 %
3530 - Youth Involvement	50,750.00	(750.00)	50,000.00	19,917.00	-	19,917.00	30,083.00	60.17 %
3600 - Public Communications Program	8,039.00	(728.00)	7,311.00	1,311.67	-	1,311.67	5,999.33	82.06 %
3610 - Web Presence Best Available Technology	10,800.00	-	10,800.00	-	-	-	10,800.00	100.00 %
3903 - Internship	4,000.00	(4,000.00)	-	-	-	-	-	-
4000 - Program & Project Support	1,679,047.00	(1,000.00)	1,678,047.00	1,102,788.73	100.00	1,102,888.73	575,158.27	34.28 %
4010 - Digital Collections Program	5,000.00	-	5,000.00	3,500.00	-	3,500.00	1,500.00	30.00 %
4400 - Federal Government Affairs	64,100.00	-	64,100.00	-	-	-	64,100.00	100.00 %
4410 - State Government Affairs	33,100.00	-	33,100.00	19,700.00	-	19,700.00	13,400.00	40.48 %
5000 - Terminal Operations Program	10,000.00	28,660.00	38,660.00	20,956.40	-	20,956.40	17,703.60	45.79 %
5040 - VMT Spill Prevention Plan Review	40,000.00	(40,000.00)	-	-	-	-	-	-
5053 - VMT System Integrity and Safety Culture	-	55,000.00	55,000.00	49,124.99	-	49,124.99	5,875.01	10.68 %
5056 - Tank 8 Floor & Cathodic Protec- tion Rev	7,908.00	4,068.00	11,976.00	10,779.20	-	10,779.20	1,196.80	9.99 %
5081 - Storage Tank Maintenance Re- view	93,355.00	(30,000.00)	63,355.00	9,839.29	-	9,839.29	53,515.71	84.47 %
5640 - Alaska North Slope Crude Oil Properties	5,000.00	(500.00)	4,500.00	3,000.00	-	3,000.00	1,500.00	33.33 %
6000 - Spill Response Program	9,200.00	(5,000.00)	4,200.00	-	-	-	4,200.00	100.00 %
6510 - State Contingency Plan Reviews	115,000.00	(55,000.00)	60,000.00	14,082.25	-	14,082.25	45,917.75	76.53 %
6512 - Adjudicatory Hearing	115,000.00	(49,200.00)	65,800.00	40,697.00	-	40,697.00	25,103.00	38.15 %
6530 - Weather/Sea Currents	16,400.00	-	16,400.00	690.66	-	690.66	15,709.34	95.79 %
6531 - Port Valdez Weather Buoys	41,200.00	1,000.00	42,200.00	50,632.98	-	50,632.98	(8,432.98)	(19.98) %
6536 - Analysis of Port Valdez Weather	22,696.00	-	22,696.00	5,696.00	-	5,696.00	17,000.00	74.90 %

Prince William Sound Regional Citizens' Advisory Council  
z Budget Status Report

	Original Budget	Budget Modifications	Summary	Actual	Commitments	Total	Remaining Amount	Percentage Remaining
Buoys								
6537 - Copper River Delta Weather Station	5,600.00	-	5,600.00	12,901.20	5,000.00	17,901.20	(12,301.20)	(219.66) %
6560 - Peer Listener Training	25,000.00	1,500.00	26,500.00	4,500.00	-	4,500.00	22,000.00	83.02 %
7000 - Spill Response Operations Program	4,450.00	(2,500.00)	1,950.00	-	422.00	422.00	1,528.00	78.36 %
7050 - Out of Region Equipment Survey	5,145.00	-	5,145.00	5,145.00	-	5,145.00	-	-
7520 - Preparedness Monitoring	30,400.00	(5,900.00)	24,500.00	3,139.89	997.77	4,137.66	20,362.34	83.11 %
8000 - Maritime Operations Program	12,000.00	-	12,000.00	8,717.32	-	8,717.32	3,282.68	27.36 %
8010 - Escort Tugboat BAT Assessment	65,000.00	(65,000.00)	-	-	-	-	-	-
8300 - Sustainable Shipping Phase 1	35,000.00	-	35,000.00	-	-	-	35,000.00	100.00 %
8520 - Miscommunication in Maritime Contexts	55,000.00	-	55,000.00	-	-	-	55,000.00	100.00 %
Contexts								
9000 - Environmental Monitoring Program	15,500.00	-	15,500.00	18,892.64	1,671.88	20,564.52	(5,064.52)	(32.67) %
9110 - PWS Marine Bird Winter Survey	50,900.00	(3,100.00)	47,800.00	32,100.00	-	32,100.00	15,700.00	32.85 %
9510 - Long-Term Environmental Monitoring	104,878.00	(33,749.00)	71,129.00	50,415.70	-	50,415.70	20,713.30	29.12 %
9511 - Prince William Sound Forage Fish Surveys	4,000.00	-	4,000.00	4,000.00	-	4,000.00	-	-
9512 - Composition of Oxygenated Hydrocarbons	52,400.00	10,000.00	62,400.00	-	-	-	62,400.00	100.00 %
9520 - Marine Invasive Species	64,754.00	10,645.00	75,399.00	12,015.91	-	12,015.91	63,383.09	84.06 %
9550 - Dispersants	30,880.00	-	30,880.00	19,280.00	-	19,280.00	11,600.00	37.56 %
9643 - Update of Subsistence Harvests & Uses	49,750.00	(49,163.23)	586.77	-	-	-	586.77	100.00 %
<b>Total All Tasks</b>	<u>4,509,297.00</u>	<u>(257,967.95)</u>	<u>4,251,329.05</u>	<u>2,509,709.81</u>	<u>10,492.57</u>	<u>2,520,202.38</u>	<u>1,731,126.67</u>	<u>40.72 %</u>

## PWSRCAC Director Attendance Record

May 2023

(Attendance recorded through March 14, 2023 Special Board Meeting)

<b>Board Member</b> <i>(date appointed)</i>	<b>Overall Attendance</b> <i># attended / # missed</i>	<b>Last 3 Mtgs.*</b> <i># attended / # missed</i>	<b>Term Expires</b>
Archibald, Robert <i>(May 2015)</i>	44/1	3/0	5/23
Bauer, Amanda <i>(May 2012)</i>	59/1	3/0	5/23
Beedle, Robert <i>(May 2013)</i>	52/4	3/0	5/24
Bender, Mike <i>(Sept. 2015)</i>	36/8	1/2	5/24
Crump, Nick <i>(May. 2021)</i>	9/4	2/1	5/23
Cutrell, Ben <i>(Jan. 2020)</i>	20/0	3/0	5/24
Domitrovich, Patrick <i>(May 2021)</i>	4/8	0/3	5/23
Donaldson, Wayne <i>(Jan. 2015)</i>	44/2	3/0	5/23
Haggarty, Mako <i>(May 2015)</i>	34/9	2/1	5/23
Hasenbank, Luke <i>(May 2016)</i>	32/9	2/1	5/24
Herbert, Jim <i>(January 2023)</i>	2/2	1/1	1/24
Jackson, Elijah <i>(May 2021)</i>	7/5	1/2	5/23
Janka, David <i>(January 2023)</i>	2/2	1/1	5/24
Malchoff, Melvin <i>(Sept. 2016)</i>	25/12	3/0	5/24
Moore, Dorothy <i>(Jan. 2007)</i>	85/1	3/0	5/24
Shavelson, Bob <i>(Sept. 2014)</i>	50/8	2/1	5/24
Totemoff, Angela <i>(May 2021)</i>	10/3	2/1	5/23
Vigil, Michael <i>(Sept. 2015)</i>	35/9	3/0	5/24
Williams, Aimie <i>(May 2022)</i>	6/3	2/1	5/24
Kirk Zinck <i>(May 2019)</i>	22/3	2/1	5/23

\* PWSRCAC policy states that member groups will be notified in writing if their appointed Board member misses three consecutive Board meetings.

Note: Overall attendance includes all voting meetings (regular and special Board meetings), but does not include non-voting meetings (e.g. LRP, budget workshops or Board retreats).



## PRINCE WILLIAM SOUND REGIONAL CITIZENS' ADVISORY COUNCIL

### PWSRCAC Committee Member Attendance Record

Port Operations and Vessel Traffic Systems (POVTS)			
Committee Member	Overall	Last 3 mtgs	Term Expires
Robert Archibald (Director)	23/0	3/0	5/23
Amanda Bauer (Director) (Vice Chair)	35/6	3/0	5/23
Steve Lewis (Chair)	19/0	3/0	5/23
Max Mitchell	3/0	3/0	5/23
Gordon Terpening	13/1	3/0	5/23

Oil Spill Prevention and Response (OSPR)			
Committee Member	Overall	Last 3 mtgs	Term Expires
Robert Beedle (Director)	36/15	2/1	5/23
Mike Bender (Director)	27/13	1/2	5/24
Dave Goldstein	75/21	3/0	5/24
Jim Herbert (Director, Chair)	53/0	3/0	5/23
John LeClair (Vice Chair)	79/28	3/0	5/23
Gordon Scott	70/74	2/1	5/23
Skye Steritz	6/6	1/2	5/23

Terminal Operations & Environmental Monitoring (TOEM)			
Committee Member	Overall	Last 3 mtgs	Term Expires
Amanda Bauer (Director, Chair)	57/9	2/1	5/24
Harold Blehm	54/9	3/0	5/23
Matt Cullin	20/9	3/0	5/24
Mikkel Foltmar	34/14	3/0	5/23
Steve Goudreau	32/15	2/1	5/23
Tom Kuckertz	39/9	3/0	5/23
George Skladal (Vice Chair)	136/11	3/0	5/24

**Ratios are # meetings present/ # of absences**

<b>Scientific Advisory Committee (SAC)</b>			
<b><i>Committee Member</i></b>	<b><i>Overall P/A</i></b>	<b><i>Last 3 mtgs P/A</i></b>	<b><i>Term Expires</i></b>
Sarah Allan	82/9	2/1	5/24
Wei Cheng	52/6	3/0	5/23
Wayne Donaldson (Director)	69/7	2/1	5/23
Roger Green	146/23	3/0	5/23
Davin Holen (Chair)	62/5	3/0	5/24
John Kennish	140/14	2/1	5/23
Dorothy Moore (Director)	126/12	1/2	5/23
Debasmita Misra	59/56	0/3	5/24
Ana Aguilar-Islas	4/5	2/1	5/24

<b>Information &amp; Education Committee (IEC)</b>			
<b><i>Committee Member</i></b>	<b><i>Overall P/A</i></b>	<b><i>Last 3 mtgs P/A</i></b>	<b><i>Term Expires</i></b>
Trent Dodson (Chair)	31/25	2/1	5/23
Jane Eisemann	79/12	1/2	5/23
Cathy Hart (Vice Chair)	71/22	2/1	5/23
Andrea Korbe	30/24	1/2	5/23
Ruth E. Knight	75/9	3/0	5/24
Savannah Lewis *since recommittal date	43/0*	3/0	5/23
Kate Morse	55/28	2/1	5/24
Aimee Williams	4/3	2/1	5/24

**Ratios are # meetings present/ # of absences**

## Current List of Board Committee Members

As of May 2022

### Executive Committee

- Robert Archibald, President
- Amanda Bauer, Vice President
- Wayne Donaldson, Treasurer
- Bob Shavelson, Secretary
- Robert Beedle, Member-at-Large
- Ben Cutrell, Member-at-Large
- Angela Totemoff, Member-at-Large

### Long Range Planning Committee

- Robert Archibald
- Amanda Bauer
- Elijah Jackson
- Angela Totemoff
- Davin Holen (SAC Chair)
- Amanda Bauer (TOEM Chair)
- Jim Herbert (OSPR Chair)
- Steve Lewis (POVTS Chair)
- Cathy Hart (IEC Chair)

### Board Governance Committee

- Luke Hasenbank (Chair)
- Dorothy Moore
- Mike Bender
- Robert Beedle

### Legislative Affairs Committee

- Dorothy Moore
- Robert Archibald
- Mako Haggerty
- Robert Beedle
- Elijah Jackson
- Kirk Zinck

### Finance Committee

- Wayne Donaldson (Treasurer)
- Robert Archibald
- Mako Haggerty
- Angela Totemoff

**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 FY2023-FY2027 Long Range Plan](#)

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

**Core Values**

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

**Overarching Goals and 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 and committed Board members, volunteers, and staff
  - (21) Strong volunteer structure and support for volunteers



# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

Board	3/14/2023	<b>Participation in May 2 Youth Involvement Bligh Reef Expedition:</b> The Board authorized the additional expenditure of an estimated \$215 per person for Council volunteers to attend the May 2, 2023 youth Involvement Bligh Reef Expedition in Valdez.	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Draper-Reich	<b>Disposition</b> Done	
Board	3/14/2023	<b>Approval of Resolution Increasing MasterCard Account at FNBA:</b> The Board adopted the attached corporate resolution provided by First National Bank Alaska authorizing an increase in the total credit limit for the Council's Mastercard account to \$80,000.	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Hamilton	<b>Disposition</b> Pending	
Board	3/14/2023	<b>Approval of Travel for President Archibald to Anchorage:</b> The Board approved costs for President Robert Archibald to travel to Anchorage on March 16 to meet with Alyeska interim president Betsy Haines in an approximate amount of \$500.	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Fleming	<b>Disposition</b> Done	
Board	3/14/2023	<b>Approval of IRS Form 990:</b> The Board authorize the Executive Director to sign the Form 990 on behalf of PWSRCAC and submit it to the IRS on or before May 15, 2023.	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Hamilton	<b>Disposition</b> Pending	
Board	3/14/2023	<b>Annual Evaluation of the Executive Director:</b> The Board approved extending the Executive Director's contract for one year	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Crawford	<b>Disposition</b> Done	
XCOM	2/21/2023	<b>Dispersant Literature Report Acceptance:</b> The Executive Committee the report titled "Review of Literature on Oil Spill Dispersants: 2021-2023", dated January 2023, by Dr. Merv Fingas of Spill Science, LLC, as meeting the terms and conditions of contract number 9550.22.02, and for distribution to the public." Has the report been distributed?	<b>File Code</b> <small>(if any)</small>	955.431.230101.FingasLitRww	<b>Responsible</b> Verna	<b>Disposition</b> Pending
XCOM	2/21/2023	<b>Board Strategic Planning Contract Approval:</b> The Executive Committee authorized the Executive Director to enter into contract with Agnew::Beck in an amount necessary from FY2023 funds that will extend into June 30, 2023 for the purpose of Board strategic planning and facilitated workshop to be held September 20, 2023 in Homer, Alaska The remainder of the funds would be subsequently passed in the FY2024 budget. Is this contract in place?	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Crawford	<b>Disposition</b> Done	

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

XCOM	2/21/2023	<b>Approval of International Travel to the 45th Annual AMOP Technical Seminar:</b> The Executive Committee approved approve International travel for Roger Green to attend the 45th Annual AMOP Technical Seminar, June 6-8, 2023 in Edmonton, Canada in an approximate amount of \$2,541. Has the travel taken place?	File Code (if any)	Responsible Odegard	Disposition Pending; travel
XCOM	2/21/2023	<b>OSPR Committee Appointment:</b> The Executive Committee appointed Matt Melton to the OSPR Committee with a term set to expire at the May 2023 annual Board meeting. Is this appointment in place?	File Code (if any)	Responsible Vanderburg	Disposition Done
Board	1/26/2023	<b>DIRECTOR APPOINTMENT FOR CDFU AND CITY OF CORDOVA:</b> The Board accepted the confirmations of the appointments of Robert Beedle representing Cordova District Fishermen United, and David Janka representing the City of Cordova, each with a term set to expire in May 2024. Are these appointments in place?	File Code (if any)	Responsible Fleming	Disposition Done
Board	1/26/2023	<b>APPROVAL OF LTEMP BUDGET MODIFICATION AND CONTRACT CHANGE ORDER:</b> The Board authorized an FY2023 budget modification from the contingency fund to project #9510 – Long Term Environmental Monitoring Program adding \$836 for contract expenses and approval of negotiation of a contract change order, for contract #951.22.06, with Owl Ridge Natural Resource Consultants, adding \$5,058 for compensation to archive the 1993-2021 Long-Term Environmental Monitoring Program data in the Alaska Ocean Observing System and extending the term of the contract to March 31, 2023. [Note: This change order would increase the total contract amount to \$68,007.]Are these steps in place?	File Code (if any)	Responsible Love	Disposition Done
Board	1/26/2023	<b>APPROVAL OF FY2023 BUDGET MODIFICATIONS:</b> The Board approved the proposed FY2023 budget modifications as listed on the provided sheet, with a total revised contingency in the amount of \$128,778. Are these modifications in place?	File Code (if any)	Responsible Hamilton	Disposition Done
Board	1/26/2023	<b>REPORT ACCEPTANCE: SECONDARY CONTAINMENT SYSTEM EVALUATION METHODS:</b> The Board accepted the report titled "Methodologies for Evaluating Defects in the Catalytically Blown Asphalt Liner in the Secondary Containment System at the Valdez Marine Terminal" by Dr. Craig H. Benson dated November 29, 2022, as meeting the terms and conditions of Contract 6512.22.02, with direction to staff to forward the report to Alyeska, and state and federal regulators accompanied by a cover letter summarizing findings and recommendations with requests for appropriate action and a complete response; and authorized staff to negotiate a contract change order, for contract #6512.22.02, with Dr. Craig H. Benson, adding \$7,900 for compensation to attend meetings with the Council, Alyeska, and state and federal regulators promoting the findings and recommendations of his November 29, 2022 report and extending the term of the contract to June 30, 2023. Are these steps in place?	File Code (if any)	Responsible Love	Disposition Done

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date      Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

Board	1/26/2023	<b>CREATION AND APPOINTMENT OF TEMPORARY RECREATION SEAT:</b> The Board approved: a waiver of Administrative Procedure 16-01 "Consideration of an Entity for the PWSRCAC Board of Directors" for the Temporary Recreation Seat; the proposed amendment to section 2.2.1 of the PWSRCAC Bylaws to add Temporary Recreation Seat to the list of Class I Membership; the proposed amendment to section 3.2 of the PWSRCAC Bylaws to add the following language: The Board of Directors may appoint an entity or individual to serve as a Class I or Class II member on a temporary basis, on terms and conditions as may be determined by the Board, by action of the Board as provided in this section; and, the appointment of Jim Herbert to fill the Temporary Recreation Seat as a Class I member with a term set to expire at the January 2024 Board meeting or at the completion of the Request for Qualifications process, whichever comes first. Are these steps in place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Taylor/Crawfo	Done
Board	1/26/2023	<b>REPORT ACCEPTANCE: 2022 FORAGE FISH SURVEY:</b> The Board accepted the report titled "2022 Prince William Sound Forage Fish Observations" by Dr. Scott Pegau of the Prince William Sound Science Center dated November 28, 2022, as meeting the terms and conditions of Contract 9511.22.01, and for distribution to the public. Is the report in place?	<b>File Code</b> (if any)	900.431.221128.PegauForageRpt	<b>Responsible</b>	<b>Disposition</b>
					Verna	Done
Board	1/26/2023	<b>REPORT APPROVAL - PWSRCAC ANNUAL LONG RANGE PLAN:</b> The Board approved the Five-Year Long Range Plan for Fiscal Years 2024–2028, as developed and finalized for consideration by the Board at the January 25, 2023 Long Range Plan work session. Is this report in place?	<b>File Code</b> (if any)	210.101.230129.FiveYearLRP	<b>Responsible</b>	<b>Disposition</b>
					Crawford/Van	Done
Board	1/26/2023	<b>APPROVAL OF DISPERSANTS USE POSITION SUPPORTING MATERIALS:</b> The Board accepted the document titled "PWSRCAC Dispersant Use Position Supporting Materials" by Elise DeCola of Nuka Research and Planning Group, LLC, dated December 2022, as meeting the terms and conditions of Contract 9550.22.01, and for distribution to the public. Are the materials available to the public?	<b>File Code</b> (if any)	955.431.230127.PositionStatement	<b>Responsible</b>	<b>Disposition</b>
					Verna	Done
Board	1/26/2023	<b>REPORT ACCEPTANCE - PORT VALDEZ WEATHER BUOY DATA ANALYSIS 2019 - 2021:</b> The Board accepted the report titled "Port Valdez Weather Buoy Data Analysis 2019-2021" by Robert W. Campbell, Ph.D., of the Prince William Sound Science Center dated December 7, 2022, as meeting the terms and conditions of the Contract 6536.22.01, and for distribution to the public. Is the report in place?	<b>File Code</b> (if any)	653.431.221207.PtVdzWxBuoyData	<b>Responsible</b>	<b>Disposition</b>
					Robertson	Done
Board	1/26/2023	<b>APPROVAL OF MARINE INVASIVE SPECIES SOLE SOURCE CONTRACT:</b> The Board authorized a budget modification from the contingency fund to project 9520 Marine Invasive Species in the amount of \$8,645 for FY2023 contract expenses; and authorized the Executive Director to enter into a sole source contract with the Smithsonian Environmental Research Center for the project Marine Invasive Species Broadscale Survey in Prince William Sound in an amount not to exceed \$60,254. Are these steps in place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Verna	Done

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

XCOM	1/19/2023	<b>Agenda for Upcoming PWSRCAC Board Meeting:</b> The Executive Committee approved the agenda for the PWSRCAC Board meeting, January 26-27, 2021 with changes as presented and discussed. Has the agenda been distributed?	<b>File Code</b> (if any)	210.001.230126,JanAgenda	<b>Responsible</b>	<b>Disposition</b>
					Fleming	Done
Board	12/20/2022	<b>Update on Assessment of Employee Concerns Regarding the VMT:</b> The Board authorized a budget modification from the contingency fund to project 5053: System Integrity and Safety Culture Issues in the amount of \$5,000; and authorized a \$5,000 increase to the agreement with Billie Garde for graphic design/publishing services, bringing the total contract amount for project 5053 to a not to exceed amount of \$55,000. Are these steps in place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Schantz	Done
Board	12/20/2022	<b>PWSRCAC Member Entity and Board Seats:</b> The Board directed staff to contact individuals from the EVOS region to temporarily fill the recreation seat, with the intent to temporarily waive Administrative Procedure 16 -01 and temporarily seat the representative selected at the January 2023 Board meeting, after which a full RFP process will be conducted. Are these steps in place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Taylor/Crawfo	Pending
Board	12/20/2022	<b>Facilitated Strategic Planning Session and Related Events:</b> The Board directed staff to plan on holding a Strategic Planning workshop in FY2024, by adding the full day facilitated workshop to the September Board meeting in Homer. Has the workshop taken place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Crawford	Pending, workshop
Board	12/20/2022	<b>Rescind COVID 19 Restrictions for In-Person Meeting:</b> The Board rescinded specific COVID-19 safety mitigation's and restrictions that were previously approved by the Board in March 2022. Rescinded restrictions to include: required mask usage, social distancing of a minimum of three feet, and requirement for food items to be served via individually packaged meals. Has this action taken place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Fleming	Done
XCOM	12/15/2022	<b>Acceptance of Memo by Taku Engineering Regarding the Maintenance of ballast Water Storage Tank 93:</b> The Executive Committee accepted the technical memorandum titled "Valdez Marine Terminal Tank 93 Preliminary Recommendations" by William Mott of Taku Engineering dated October 28, 2022, as meeting the terms and conditions of Contract 5081.22.01, with direction to staff to forward the memo to Alyeska and state and federal regulators. Has the report been distributed?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Love	Done
XCOM	12/15/2022	<b>Approval of Travel to the 2023 Nonprofit Technology Conference:</b> The Executive Committee approved travel for IEC member Cathy Hart to attend the NTEN Conference, April 12-14, 2023, in Denver, Colorado, with travel costs in an approximate amount of \$2,572. Has the travel taken place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Willahan	Pending, travel

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

XCOM	12/15/2022	<b>Planning and Process for Executive Director FY2024 Evaluation:</b> The Executive Committee approved forwarding the Executive Director performance goals to the Board for approval at the January 2023 Board meeting. Has this taken place?	File Code (if any)	Responsible Schantz	Disposition Done
XCOM	11/10/2022	<b>Contract Approval - Marine Bird Winter Surveys:</b> The Executive Committee approved a sole source contract with the Prince William Sound Science Center to conduct Project 9110 – Prince William Sound Marine Bird Winter Surveys at an amount not to exceed \$41,700. Is this contract in place?	File Code (if any)	Responsible Verna	Disposition Done
XCOM	11/10/2022	<b>Budget Modification and Contract Change Order for Terminal Operations Program:</b> The Executive Committee authorized a budget modification of \$14,560 from the contingency fund to program #5000 – Terminal Operations Program; and to authorize a change order to contract #5000.22.01 with Taku Engineering, LLC increasing the amount by \$14,560, bringing the total contract value to a not to exceed amount of \$49,060. Are these steps in place?	File Code (if any)	Responsible Love	Disposition Done
XCOM	11/10/2022	<b>Approval of International Travel to Attend PWSRCAC Volunteer Events:</b> The Executive Committee approved international travel for Dr. Roger Green to travel from Ontario, Canada to Alaska to attend PWSRCAC's Science Night, volunteer workshop, and annual holiday party, scheduled for December 1-2, 2022, in an approximate amount of \$2,537.	File Code (if any)	Responsible Willahan	Disposition Done
XCOM	11/10/2022	<b>2022 Holiday Bonus for the Executive Director:</b> The Executive Committee authorized a one-time 2022 holiday bonus for Executive Director Donna Schantz in the amount of \$400. Has the bonus been delivered?	File Code (if any)	Responsible Hamilton	Disposition Done
Board	9/22/2022	<b>3-1 CONTRACT APPROVAL: MISCOMMUNICATION IN MARITIME CONTENTS:</b> The Board authorized of a sole source contract with Dr. Zeigler through Sky Island Language Learning Research in an amount not to exceed \$55,000 for Project 8520 – Miscommunication in Maritime Contexts. Is this contract in place?	File Code (if any)	Responsible Sorum	Disposition Done
Board	9/22/2022	<b>3-2 CONTRACT APPROVAL: ADF&amp;G SUBSISTENCE HARVEST SURVEYS:</b> The Board authorized a sole source contract with Alaska Department of Fish and Game for the project Comprehensive Update of Subsistence Harvest and Uses in Prince William Sound, in an amount not to exceed \$49,750 Is this contract in place?	File Code (if any)	Responsible Verna	Disposition Done

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date      Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

Board	9/22/2022	<b>4-4 APPROVAL OF LINE THROWING TRIAL SUMMARY VIDEO:</b> The Board accepted the line throwing trial summary video produced by OnPoint Outreach as meeting the terms and conditions of Contract 8012.22.03 and allow the video to be distributed to the public. Is this video in place?	<b>File Code</b> (if any)		<b>Responsible</b> Sorum	<b>Disposition</b> Done
Board	9/22/2022	<b>4-3 FY2022 AUDIT ACCEPTANCE:</b> The Board accepted the June 30, 2022 audited financial statements and audit report. Are these documents in place?	<b>File Code</b> (if any)		<b>Responsible</b> Hamilton	<b>Disposition</b> Done
Board	9/22/2022	<b>4-1 REPORT ACCEPTANCE: EVALUATION REPORT TANK 8 FLOOR &amp; CATHODIC PROTECTION SYSTEM DESIGN REVIEW:</b> The Board Accepted the report titled "Crude Oil Storage Tank 8 Floor and Cathodic Protection System Design Review" by William Mott of Taku Engineering, dated June 2022, as meeting the terms and conditions of the Contract 5056.22.01, and gave direction to staff to forward the report to Alyeska and state and federal regulators accompanied by a cover letter summarizing the findings and recommendations with requests for appropriate action and a complete response. Are these steps complete?	<b>File Code</b> (if any)	500.431.220601.TakuT8DesignRvw and 500.105.221025.Tank8CPrerAPSC	<b>Responsible</b> Love	<b>Disposition</b> Done
Board	9/22/2022	<b>4-2 REPORT ACCEPTANCE: EVALUATION REPORT OF PEER LISTENER PROGRAM:</b> The Board accepted the report titled "Evaluation Report Peer Listener Program" by Purpose Driven Consulting dated August 2, 2022, as meeting the terms and conditions of Contract 6560.22.01 and for distribution to the public.	<b>File Code</b> (if any)	646.431.220802.PeerListenEval	<b>Responsible</b> Verna	<b>Disposition</b> Done
Board	9/22/2022	<b>4-6 REPORT ACCEPTANCE &amp; UPDATE TO COUNCIL'S DISPERSANTS USE POSITION:</b> The Board approved, as amended: <ul style="list-style-type: none"> <li>• Acceptance of the report titled "Summary of Board of Directors Workshops and Draft Evidence-Based, Updated Position" by Elise DeCola of Nuka Research, dated July 26, 2022, as meeting the terms and conditions of Contract 9550.22.01, and for distribution to the public, as amended at this meeting.</li> <li>• Adoption of the Dispersant Use Position dated July 26, 2022, as presented and amended at this meeting, as follows: <ul style="list-style-type: none"> <li>o Addition of new subparagraph 2) d. <ul style="list-style-type: none"> <li>e. There is an unproven assumption that oil on the surface is worse than oil in the water column.</li> </ul> </li> <li>o Amended 4 d) i. to read: <ul style="list-style-type: none"> <li>i. Alaska Native Tribes and rural community members in the EVOS region</li> </ul> </li> <li>o Amended 4) a. and 4) b. to add [after the word "PWS"]: ... and the oil spill affected region ... For clarity and consistency throughout the position, the phrase "PWS and the EVOS affected region" was updated where reference to PWS was made.</li> </ul> </li> </ul>	<b>File Code</b> (if any)	955.431.220926.RCACPosition	<b>Responsible</b> Verna	<b>Disposition</b> Done

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

Board	9/22/2022	<b>4-7 REPORT ACCEPTANCE: OUT OF REGION OIL SPILL RESPONSE EQUIPMENT SURVEY:</b> The Board accepted the Out of Region Oil Spill Response Equipment Survey whitepaper (as updated September 2022), compiled by contractor Nuka Research and Planning Group, LLC, and Nielson, Koch and Grannis as meeting the terms and conditions of Contract 7050.22.01, and for distribution to the public. Is this report in place?	<b>File Code</b> (if any)	705.431.220901.NukaPWSOORSurv	<b>Responsible</b>	<b>Disposition</b>
					Robida	Done
Board	9/22/2022	<b>4-8 REPORT ACCEPTANCE: GENETIC ANALYSIS OF ZOOPLANKTON:</b> The Board accepted the report titled "Variation in Zooplankton Community Composition in Prince William Sound across Space and Time" by Dr. Katrina Lohan of the Smithsonian Environmental Research Center and Dr. Jon Geller of Moss Landing Marine Laboratory, dated July 5, 2022, as meeting the terms and conditions of Contract 9520.22.01, and for distribution to the public. Is this report in place?	<b>File Code</b> (if any)	952.431.220705.ZooplankVariation	<b>Responsible</b>	<b>Disposition</b>
					Verna	Done
Board	9/22/2022	<b>4-9 REPORT ACCEPTANCE: MARINE WINTER BIRD SURVEYS IN PRINCE WILLIAM SOUND:</b> The Board accepted the report titled "Marine Winter Bird Surveys in Prince William Sound" by Prince William Sound Science Center dated August 5, 2022, as meeting the terms and conditions of Contract 9110.22.01, and for distribution to the public. Is this report in place?	<b>File Code</b> (if any)	900.431.220805.WinterBirdSurv	<b>Responsible</b>	<b>Disposition</b>
					Verna	Done
Board	9/22/2022	<b>4-10 PWSRCAC LONG RANGE PLANNING:</b> The Board approved the protected project list for the upcoming Long Range Planning process as presented in Attachment A to briefing sheet 4-10. Is this list in place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Crawford	Done
Board	9/22/2022	<b>3-3 APPROVAL OF FY 2023 BUDGET MODIFICATIONS:</b> The Board approved the FY2023 budget modifications as listed on the provided [budget modifications] sheet, with a total revised contingency in the amount of \$96,469. Are these modifications in place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Hamilton	Done
XCOM	9/15/2022	<b>Ratification of Recent Board President Travel:</b> The Executive Committee approved the ratification of President Archibald's travel to Anchorage on September 14, 2022 to meet with Alyeska interim president, Betsy Haines in an approximate amount of \$500. Has the travel taken place?	<b>File Code</b> (if any)		<b>Responsible</b>	<b>Disposition</b>
					Fleming	Done
XCOM	9/15/2022	<b>Acceptance of 2021 Long-Term Environmental Monitoring Program Reports:</b> The Executive Committee accepted the reports titled "Long-Term Environmental Monitoring Program: 2021 Summary Report" and "Long-Term Environmental Monitoring Program: 2021 Technical Supplement" by Owl Ridge Natural Resource Consultants, dated May 2022, as meeting the terms of contract #951.22.06 and for public distribution. Are these reports in place?	<b>File Code</b> (if any)	951.431.220501.OwlRidgeSummary and 951.431.220501.OwlRidgeTech	<b>Responsible</b>	<b>Disposition</b>
					Love	Done

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

XCOM	9/15/2022	<b>Contract Approval - Sustainable Shipping Regulatory Mandate Review:</b> The Executive committee accepted the proposal from Nuka Research and Planning Group, LLC and authorized a contract with them for an amount not to exceed \$35,000. Is this contract in place?	File Code (if any)	Responsible Sorum	Disposition Done
XCOM	9/15/2022	<b>Out-of-State Travel to Pacific Marine Expo:</b> The Executive Committee approved out-of-state travel for Max Mitchell to attend the Pacific Marine Expo, November 17-19, 2022 in Seattle, Washington with total travel costs in an approximate amount of \$2,510. Has the travel taken place?	File Code (if any)	Responsible Vanderburg	Disposition Done
XCOM	9/15/2022	<b>Agenda for Upcoming PWSRCAC Board Meeting:</b> The Executive Committee approved the agenda for the PWSRCAC Board meeting, September 22-23, 2022 in Seward, as presented and amended	File Code (if any)	Responsible Fleming	Disposition Done
Board	6/21/2022	<b>FY2023 LTEMP Contract Change Order:</b> The Board approved an FY2023 budget modification, adding \$6,478 to project #9510 – Long-Term Environmental Monitoring Program, for contract expenses; and, approved a negotiation of a contract change order, for contract #951.22.06, with Owl Ridge Natural Resource Consultants, adding \$6,478 for compensation to archive the 1993-2021 Long-Term Environmental Monitoring Program data in the Alaska Ocean Observing System. Are these steps in place?	File Code (if any)	Responsible Love	Disposition Done
Board	6/21/2022	<b>ArcticCare Sole Source Contract with Arctic IT:</b> The Board approved a three-year sole source contract (1300.21.01) with Arctic Information Technology for monitoring and supporting PWSRCAC's computer network in an estimated amount of \$72,000. Is this contract in place?	File Code (if any)	Responsible Odegard	Disposition Done
Board	6/21/2022	<b>Change to the September 2022 Board Meeting Dates:</b> The Board approved a deviation from Resolution 05-03 amending the dates of the September Board of Directors meeting, with the meeting set to take place September 22-23, 2022 in Seward. Has notification been made of this change?	File Code (if any)	Responsible Fleming	Disposition Done



# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date      Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

Board	6/21/2022	<b>Approval of New Accounting System Implementation:</b> The Board authorized a three-year sole source contract with Sockeye Consulting for help setting up and configuring the new accounting system as well as providing ongoing support and training at a total cost of an estimated \$36,908 over the three years; approved a FY2023 budget modification in the amount of \$22,500 from the capital budget to project 1300 Information Technology for the first year of the Sage Intacct subscription (\$10,500) and Sockeye Consulting contract (\$12,000); and approved a FY2023 budget modification of \$37,500 from the capital budget to the contingency fund. Are these steps in place?	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Hamilson /	<b>Disposition</b> Done	
Board	6/21/2022	<b>ADF Rapid Reponse Grant:</b> The Board directed staff to rescind the May 24, 2022 Executive Committee action to accept the full \$10,000 award issued by the Alaska Conservation Foundation for the Rapid Response Grant to expand the scope of services for Billie Garde (Project #5053) to include system integrity and safety culture concerns pertaining to the Trans Alaska Pipeline. Has this action taken place?	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Schantz	<b>Disposition</b> Done	
XCOM	5/24/2022	<b>Acceptance of ACF Rapid Response Grant:</b> The Executive Committee authorized PWSRCAC to accept the full \$10,000 award issued by the Alaska Conservation Foundation for the Rapid Response Grant, to be used to expand the scope of services for Billie Garde (Project #5053) to include system integrity and safety culture concerns pertaining to the Trans Alaska Pipeline. Has the grant been accepted?	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Schantz	<b>Disposition</b> Withdrawn (see	
Board	5/5/2022	<b>Director Appointment:</b> The Board approved the appointment and seating on the Board of the following selected representatives for two-year terms for each of the member entities: L. Hasenbank (AK State Chamber of Commerce), M. Vigil (Chenega IRA Council/Chenega Bay Corporation), B. Cutrell (Chugach Alaska Corporation), R. Beedle (Cordova), D. Moore (Valdez), M. Bender (Whittier), C. Herschleb (CDFU), A. Williams (Kodiak Island Borough), B. Shavelson (OSREC), and M. Malchoff (Port Graham Corporation). Are these appointments in place?	<b>File Code</b> <small>(if any)</small>	<b>Responsible</b> Fleming	<b>Disposition</b> Done	
Board	5/5/2022	<b>Approval of Resolution 22-02 Recognizing Anil Mathur:</b> The Board adopted Resolution 22-01 recognizing and expressing appreciation for Anil Mathur's contributions to the safe transportation of oil in Prince William Sound and throughout the West Coast of the United States. Is this resolution in place?	<b>File Code</b> <small>(if any)</small>	210.106.220505.MatherRes	<b>Responsible</b> Fleming	<b>Disposition</b> Done
Board	5/5/2022	<b>Approval of Resolution 22-01 Recognizing Patience Andersen Faulkner:</b> The Board adopted Resolution 22-02 recognizing Patience Andersen Faulkner for her 24 years of service to the Council. Is this resolution in place?	<b>File Code</b> <small>(if any)</small>	210.106.220505.FaulknerRes.	<b>Responsible</b> Fleming	<b>Disposition</b> Done

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date      Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

Board	5/5/2022	<b>FY2023 BUDGET APPROVAL:</b> The Board adopted the FY2023 budget as presented during the budget workshop on April 27,2022, and as described in the Proposed FY2023 Budget Book dated April 18, 2022 (total income is \$3,898,340, total expenses are \$4,509,296, contingency is \$100,000, capital budget of \$125,000 and net assets used are \$834,956). Is the budget in place?	<b>File Code</b> <small>(if any)</small>		<b>Responsible</b> Hamilton	<b>Disposition</b> Done
Board	5/5/2022	<b>RESOLUTION DESIGNATING PWSRCAC CHECK SIGNERS:</b> The Board adopted the resolutions provided by First National Bank Alaska to update the list of authorized individuals to sign checks and conduct financial transactions on PWSRCAC's account. Are the resolutions in place?	<b>File Code</b> <small>(if any)</small>		<b>Responsible</b> Hamilton	<b>Disposition</b> Done
Board	5/5/2022	<b>FY2023 C-PLAN CONTRACTOR POOL &amp; CONTRACT AUTHORIZATION:</b> The Board authorized individual contracts with attorney Breck Tostevin; Nuka Research and Planning Group, LLC; and Polaris Applied Sciences, Inc., for professional services, with the aggregate total not to exceed the amount approved for 651 Contingency Plan Review in the final FY2023 budget, and delegation of authority to the Executive Director to enter into individual contracts with the selected consultants. Are these contracts in place?	<b>File Code</b> <small>(if any)</small>		<b>Responsible</b> Swiss	<b>Disposition</b> Done
Board	5/5/2022	<b>FY2023 LTEMP CONTRACT AUTHORIZATION:</b> The Board (A) authorized individual contracts with NewFields Environmental Forensics Practice and Oregon State University, with the aggregate total not to exceed the amount approved in the final FY2023 LTEMP budget (Project #9510) for contract expenses, and delegation of authority to the Executive Director to enter into individual contracts with the aforementioned consultants and, (B) authorized contract work to commence prior to the start of FY2023, as approximately \$10,000 of these funds will need to be expended in May and June 2022. Are these contracts in place?	<b>File Code</b> <small>(if any)</small>		<b>Responsible</b> Love	<b>Disposition</b> Done
Board	5/5/2022	<b>PWSRCAC/ALYESKA CONTRACT COMPLIANCE VERIFICATION REPORT APPROVAL:</b> The Board accepted the PWSRCAC/Alyeska Annual Contract Compliance Verification Report. Is the report in place?	<b>File Code</b> <small>(if any)</small>	100.109.220217.ContrComplRp	<b>Responsible</b> Hamilton	<b>Disposition</b> Done
Board	5/5/2022	<b>GEOGRAPHIC RESPONSE PLANNING FOR THE COPPER RIVER DELTA &amp; FLATS:</b> The Board accepted the white paper titled, "Geographic Response Planning for the Copper River Delta and Flats," by Nuka Research as meeting the terms and conditions of contract 6540.22.01, and for distribution to the public. Is this report in place?	<b>File Code</b> <small>(if any)</small>	654.431.220301.NukaCRDFhistory	<b>Responsible</b> Robida	<b>Disposition</b> Done
Board	5/5/2022	<b>ELECTION OF OFFICERS AND MEMBERS-AT-LARGE TO EXECUTIVE COMMITTEE:</b> The Board Elected the following: President - Robert Archibald; Vice President - Amanda Bauer; Treasurer - Wayne Donaldson: Secretary - Bob Shavelson; and, Members-at-Large - Ben Cutrell, Angela Totemoff, Robert Beedle. Are these appointments in place?	<b>File Code</b> <small>(if any)</small>		<b>Responsible</b> Fleming	<b>Disposition</b> Done

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS



Meeting	Date	Action Item	File Code (if any)	Responsible	Disposition
Board	5/5/2022	<b>Annual Board Committee Appointments:</b> The Board appointed: Cutrell, Beedle, Bauer, Williams, Totemoff, Archibald and Shavelson to the Ad Hoc Executive Director Evaluation Reivew Committttee; Donaldson, Totemoff, Archibald, and Haggerty to the Finance Committee; Archibald, Jackson and Bauer and the chairs of the five technical committees, and C. Hart to the LRP committee; Hasenbank, Moore, Beelde and Bender to the BGC; and, Moore, Archibald, Haggerty, Beedle, Zinck and Jackson to the LAC. Are these appointments in place?		Fleming	Done
Board	5/5/2022	<b>Approval of Technical Committee Appointments:</b> The Board made the following two-year technical committee appointments D.Holen, S. Allan, D. Misra and A. Aguilar-Islas to SAC; M. Cullin and G. Skladal to TOEM; J. Brookman and D. Goldstein to OSPR; G. Terpening and Max Mitchell to POVTS, and, R. Knight and K. Morse to IEC. Are these appointments in place?		Vanderburg &	Done
Board	5/5/2022	<b>APPROVAL OF IRS FORM 990:</b> The Board authorized the Executive Director to sign the FY2021 Form 990 on behalf of PWSRCAC and submit it the IRS by May 15, 2022, with the change outlined by Dixon to Schedule I, Part IV. Has the form 990 been submitted?		Hamilton	Done
Board	5/5/2022	<b>ACCEPTANCE OF AVTEC SHIP HANDLING COURSEWORK:</b> The Board accepted the coursework developed by the AVTEC Maritime Training Center as meeting the terms and conditions of contract 8014.22.01 with the Council. Is the coursework in place?		Sorum	Done
Board	5/5/2022	<b>APPROVAL OF STORAGE TANK MAINTENANCE REVIEW CONTRACT AUTHORIZATION:</b> The Board authorized a sole source contract negotiation and execution with Taku Engineering LLC for work to complete the Council's Storage Tank Maintenance Review project 5081 focused on the inspection and repair of Crude Oil Tank 2 at an amount not to exceed the amount included in the Board-approved FY2023 budget. Is this contract in place?		Love	Done
XCOM	4/28/2022	<b>Approval of full-length, April 2020 oil spill environmental monitoring report:</b> The Executive Committee accepted the report titled "Mussel Chemistry and Transcriptomic Response after a Minor Alaskan Oil Spill" dated September 22, 2021 as final and for public distribution. Is the report in place?	951.431.210922.MusslChemTrans	Love	Done
XCOM	4/28/2022	<b>Contract Approval – Forage Fish Surveys:</b> The Executive Committee approved a sole source contract with the Prince William Sound Science Center to conduct Project 9511 – Prince William Sound Forage Fish Surveys at an amount not to exceed \$46,300. Is this contract in place?		Verna	Done

# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

XCOM	4/28/2022	<b>Approval of Secondary Containment Liner-Leakage Model Report:</b> The Executive Committee accepted the report titled "Utilizing Numerical Simulation to Estimate the Volume of Oil Leaked Through a Damaged Secondary Containment Liner" dated February 7, 2022 as final and for public distribution. Is this report in place?	<b>File Code</b> (if any) 500.431.220207.LinerLeakModel	<b>Responsible</b> Love	<b>Disposition</b> Done
XCOM	4/28/2022	<b>Approval of contract with Dr. Craig Benson for Secondary Containment Liner work (Project #6512):</b> The Executive Committee authorized the Executive Director to negotiate a contract with Dr. Craig H. Benson for project 6512 - Secondary Containment Liner Work in an amount not-to-exceed \$50,000. Is this contract in place?	<b>File Code</b> (if any)	<b>Responsible</b> Love	<b>Disposition</b> Done
XCOM	4/28/2022	<b>Approval of In-State Travel:</b> The Executive Committee retroactively approved in-state travel for Robert Archibald retroactively to attend the ConocoPhillips/Polar Tankers Bridge Resources Training in Seward, April 18 -20, 2022 in an amount not to exceed \$1,200. Has the travel taken place?	<b>File Code</b> (if any)	<b>Responsible</b> Fleming	<b>Disposition</b> Done
XCOM	4/28/2022	<b>Agenda for Upcoming PWSRCAC Board Meeting:</b> The Executive Committee approved the agenda for the PWSRCAC Board meeting scheduled for May 5-6, 2022. Has the agenda been distributed?	<b>File Code</b> (if any) 210.001.220505.MayAgenda	<b>Responsible</b> Fleming	<b>Disposition</b> Done
XCOM	4/5/2022	<b>VMT System Integrity Issues:</b> The Executive Committee authorized a transfer of \$50,000 from the contingency fund to a new project #5053 titled VMT System Integrity and Safety Culture Issues, and authorized the Executive Director to enter into a sole source contract with Ms. Billie Garde to assist with work under project 5053 VMT System Integrity and Safety Culture Issues. Is this contract in place?	<b>File Code</b> (if any)	<b>Responsible</b> Schantz	<b>Disposition</b> Done
Board	3/8/2022	<b>Approval of FY2022 Budget Modifications:</b> The Board approved the proposed FY2022 budget modifications as listed on the provided sheets totaling \$100,551, bringing the contingency fund to \$211,881. Are these modifications in place?	<b>File Code</b> (if any)	<b>Responsible</b> Hamilton	<b>Disposition</b> Done
Board	3/8/2022	<b>Rescind Temporary Travel Restrictions:</b> The Board approved rescinding the temporary COVID-19 travel restrictions in their entirety. Have the temporary restrictions been rescinded?	<b>File Code</b> (if any)	<b>Responsible</b> Crawford	<b>Disposition</b> Done

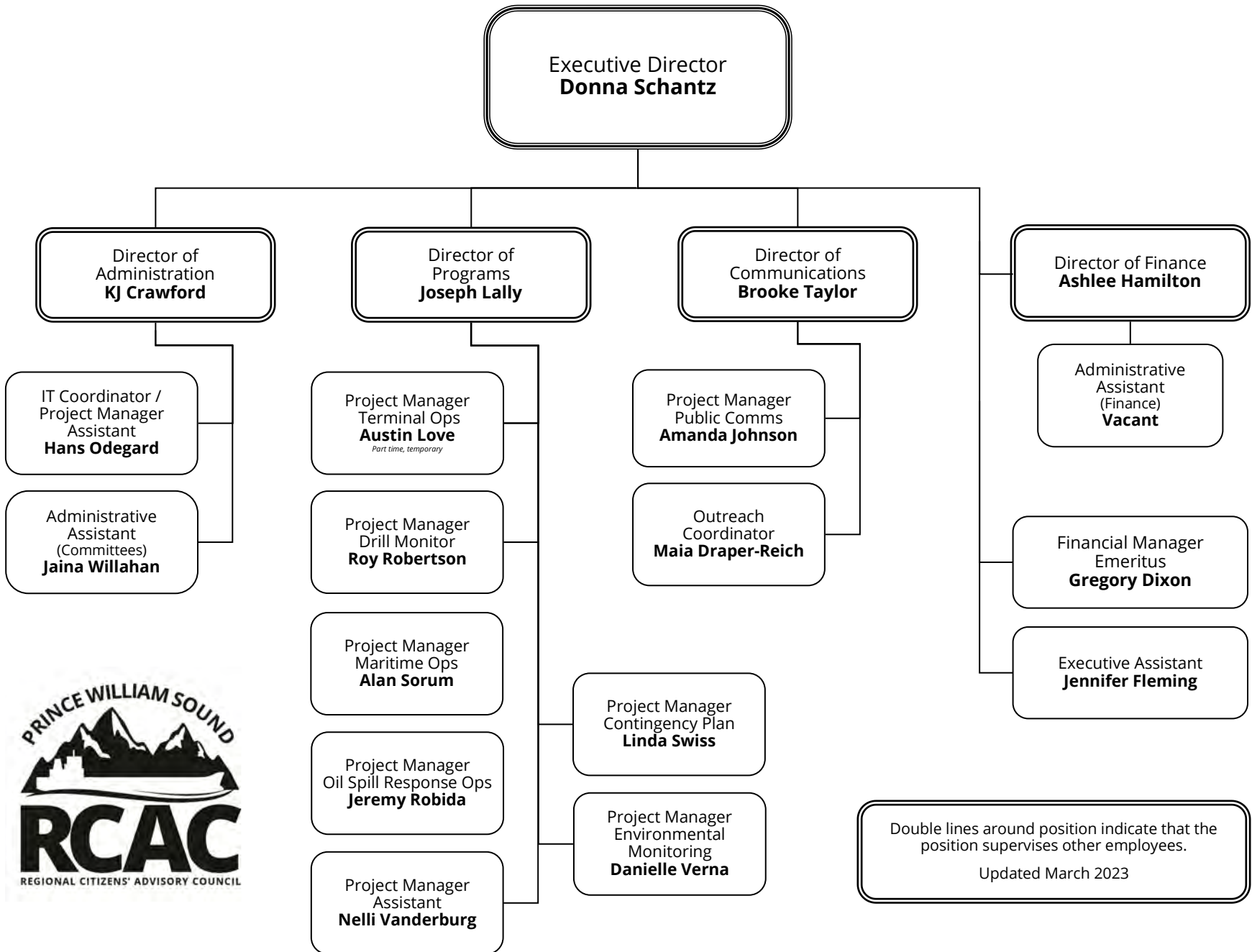
# PWSRCAC BOARD AND EXECUTIVE COMMITTEE ACTIONS

Meeting Date      Action Item



**PRINCE WILLIAM SOUND**  
REGIONAL CITIZENS' ADVISORY COUNCIL

Board    3/8/2022	<p><b>Council May 5-6, 2022 Board meeting and associated events:</b> The Board approved holding the May 2022 Board meeting in-person with the following COVID-19 safety mitigations in place: Mask wearing required except when eating/drinking or speaking into a microphone; social distancing of a minimum of three feet encouraged; hand sanitization stations placed at convenient locations; commonly touched surfaces disinfected daily; lunch served via boxed lunch and drinks individually packaged; and clearly state on meeting agenda and announcements that anyone experiencing symptoms of COVID-19 should not attend the meeting. Are members made aware of this action?</p>	<p><b>File Code</b> (if any)</p> <hr/> <p><b>Responsible      Disposition</b></p> <p>Fleming              Done</p>
Board    3/8/2022	<p><b>Secondary Containment Adjudicatory Hearing Project:</b> The Board approved an FY 2022 budget modification of \$75,000 from the Contingency Fund to Project 6512 Secondary Containment Adjudicatory Hearing, for costs associated with legal counsel and technical expert consultation; and, authorize expenditures for attorney and expert fees related to the Secondary Containment Adjudicatory Hearing, delegating authority to XCOM to approve individual contracts for experts. The Board expectation is that staff will provide updates to the Board in an attempt to manage expenses. Are these steps in place?</p>	<p><b>File Code</b> (if any)</p> <hr/> <p><b>Responsible      Disposition</b></p> <p>Lally                  Done</p>
Board    3/8/2022	<p><b>Executive Director Annual Evaluation:</b> The Board approved a 5.5% pay increase effective immediately and approved extending the Executive Director's contract for one year. Are these steps in place?</p>	<p><b>File Code</b> (if any)</p> <hr/> <p><b>Responsible      Disposition</b></p> <p>Hamilton              Done</p>



**Consent Item Briefing for PWSRCAC Board of Directors – May 2023**

**ACTION ITEM**

**Sponsor:** Ashlee Hamilton, Financial Director  
**Project number and name or topic:** 100 - General Administration Financial Management

1. **Description of agenda item:** Staff is requesting that the Board of Directors adopt resolutions updating the persons authorized to sign checks and transact other business on the organization's account at First National Bank Alaska (FNBA). Staff is requesting that the Board of Directors pass bank-provided resolutions to update PWSRCAC's signature cards with FNBA. Those authorized to sign checks on behalf of PWSRCAC will include the Board Officers (president, vice president, secretary, and treasurer), the Executive Director (Donna Schantz), the Director of Administration (KJ Crawford), the Director of Programs (Joe Lally), and one to two other Board members who reside in the Anchorage area. Having Board members who reside in the Anchorage area authorized to sign checks is helpful in order to obtain signatures in a timely manner and to save costs, as this reduces the need to mail checks outside of the Anchorage area to obtain signatures. The resolution will also provide for the Financial Director to receive bank information, but not approve any transactions.
2. **Why is this item important to PWSRCAC:** Bank authorizations need to reflect current Board members and staff. To maintain adequate internal controls, we require that checks written on the main checking account have two signatures and if the amount of the check is \$15,000 or more, one of those signers must be a Board member.
3. **Action Requested of the Board of Directors:** Adopt the resolutions provided by First National Bank Alaska to update the list of authorized individuals to sign checks and conduct financial transactions on PWSRCAC's account.
4. **Alternatives:** None proposed.
5. **Attachments:** None.

**Consent Agenda Briefing for PWSRCAC Board of Directors – May 2023**

**ACTION ITEM**

**Sponsor:** Austin Love and the Scientific Advisory Committee

**Project number and name or topic:** 9510 – Long-Term Environmental Monitoring

1. **Description of agenda item:** This agenda item requests Board approval of Long-Term Environmental Monitoring Program (LTEMP) contracts for summer 2023 field-sampling and laboratory work. Contracts for the Board's consideration include:

- Authorize individual contracts with Alpha Analytical and Owl Ridge Natural Resource Consultants, Inc. with the aggregate total not to exceed the amount approved in the final FY2024 LTEMP budget (Project #9510) for contract expenses, and delegate authority to the Executive Director to enter into individual contracts with the aforementioned consultants.

Alpha Analytical will provide the Council with analytical chemistry laboratory services for mussel and marine sediment samples. Owl Ridge Natural Resource Consultants will report and interpret the analytical results of the 2022 and 2023 LTEMP samples, and also assist with the 2023 field work.

Some of the work under these contracts needs to begin in May 2023, prior to the start of FY2024, because of supply prerequisites and sampling timing.

Additional LTEMP costs, not described in this briefing, include other analytical lab costs, vessel and floatplane charters for field work, sample shipping costs, and minor equipment and supplies costs.

2. **Why is this item important to PWSRCAC:** The Oil Pollution Act of 1990 directs PWSRCAC to "devise and manage a comprehensive program of monitoring the environmental impacts of the operations of terminal facilities and crude oil tankers while operating in Prince William Sound." LTEMP is designed to address this directive. LTEMP results are used to assess the environmental impacts of the Valdez Marine Terminal and the crude oil tankers operating in Prince William Sound, including the long-term impacts of the Exxon Valdez oil spill.

3. **Previous actions taken by the Board on this item:** The Long-Term Environmental Monitoring Program has been conducted by PWSRCAC since 1993 and many actions have been taken by the Board on this item since that time. In the interest of providing currently pertinent information regarding actions items taken by the Board on this item, only the last five years of actions are presented below. However, all historic actions pertaining to this



## Approval of FY2024 LTEMP Contract Authorization 3-2

agenda item are available for review upon request (please [contact Jennifer Fleming](#) for that information).

<u>Meeting</u>	<u>Date</u>	<u>Action</u>
Board	5/2/19	The Board authorized contract negotiations with Payne Environmental Consultants for sampling and analytical report work on mussels and sediments to be performed under LTEMP for FY20, at an amount not to exceed \$65,866; and authorized contract negotiations with Newfields Environmental Forensics Practice for analytical laboratory work and sample storage to be performed under LTEMP for FY20 at an amount not to exceed \$28,506. Authorized contract negotiations with Oregon State University for passive sample device purchase and analytical laboratory work on passive sampling devices to be performed under LTEMP for FY20, at an amount not to exceed \$20,590; and authorized contract work to commence prior to the start of FY20, as approximately \$20,000 of these funds will need to be expended in May and June 2019 because of the supply prerequisites and sampling timing.
Board	9/19/19	The Board accepted the report titled "Long Term Environmental Monitoring Program: 2018 Sampling Results and Interpretations" by Dr. James R. Payne and William B. Driskell, dated July 2019 as meeting the terms of the contract and for distribution to the public.
Board	5/7/20	The Board accepted the report titled "Long-Term Environmental Program: 2019 Sampling Results and Interpretations," by Dr. James Payne and William B. Driskell, dated March 2020, as meeting the terms and conditions of contract number 951.20.04, and for distribution to the public.
Board	5/21/20	Authorized a contract negotiation with Payne Environmental Consultants Inc., for work to be performed under LTEMP, at an amount not to exceed \$115,064. Authorizing a contract negotiation with Newfields Environmental Forensics Practice, for work to be performed under LTEMP, at an amount not to exceed \$95,807. Authorizing a contract negotiation with the United States Geological Survey, for work to be performed under LTEMP, at an amount not to exceed \$65,371. Authorizing a contract negotiation with Oregon State University, for work to be performed under LTEMP, at an amount not to exceed \$22,030. Authorizing a contract work to commence prior to the start of FY2021, as approximately \$33,000 of these funds will need to be expended in May and June 2020.
Board	5/6/21	Accepted the reports titled "Long Term Environmental Monitoring Program: 2020 Sampling Results & Interpretations," by Dr. James R. Payne and William Driskell, dated March 2021 as meeting the terms and conditions of contract 951.21.04, and for distribution to the public.
Board	5/21/21	Authorized individual contracts with NewFields Environmental Forensics Practice, Oregon State University, and the United States Geological Survey (USGS) with the aggregate total not to exceed the amount approved in the final FY2022 LTEMP budget (project #9510) for contract expenses, and delegated authority to the Executive Director to enter into individual contracts with the aforementioned consultants; and authorized that the contract work to commence prior to the start of FY2022 as approximately \$30,000 of these funds will need to be expended in May and June 2021.
Board	1/27/22	Authorized a budget modification, adding \$53,880 to Project 9510-Long-Term Environmental Monitoring Program; and authorized a contract negotiation with Owl Ridge Natural Resource Consultants, to complete the LTEMP scope of work in RFP 951.21.06, and with Payne Environmental Consultants, to support Owl Ridge's work, at a total aggregate cost not to exceed \$77,000.
Board	5/5/22	Authorized individual contracts with NewFields Environmental Forensics Practice and Oregon State University, with the aggregate total not to exceed the amount approved in the final FY2023 LTEMP budget (Project #9510) for contract expenses, and delegation of authority to the Executive Director to enter into individual

## Approval of FY2024 LTEMP Contract Authorization 3-2

contracts with the aforementioned consultants and, authorized contract work to commence prior to the start of FY2023, as approximately \$10,000 of these funds will need to be expended in May and June 2022.

XCOM 9/15/22 Accepted the reports titled "Long-Term Environmental Monitoring Program: 2021 Summary Report" and "Long-Term Environmental Monitoring Program: 2021 Technical Supplement" by Owl Ridge Natural Resource Consultants, dated May 2022, as meeting the terms of contract #951.22.06 and for public distribution.

4. **Summary of policy, issues, support, or opposition:** None.
5. **Relationship to LRP and Budget:** Project 9510 – Long-Term Environmental Monitoring is in the approved FY2023 budget and annual work plan.

### **9510 – Long-Term Environmental Monitoring Program**

As of March 20, 2023

Original Budget	\$104,878
Revised Budget	\$71,129
Actual & Commitments	\$50,415
<b>Amount Remaining</b>	<b>\$20,713</b>

6. **Action Requested of the Board of Directors:**
  - a) Authorize individual contracts with Alpha Analytical and Owl Ridge Natural Resource Consultants, Inc. with the aggregate total not to exceed the amount approved in the final FY2024 LTEMP budget (Project #9510) for contract expenses.
  - b) Authorize contract work to commence prior to the start of the 2024 fiscal year to accommodate timing considerations and purchasing needs. It is estimated that up to \$15,000 of the above contract work may be performed before June 30, 2023.
7. **Alternatives:** None suggested.
8. **Attachments:** None.

**Consent Agenda Briefing for PWSRCAC Board of Directors – May 2023**

**ACTION ITEM**

**Sponsor:** Danielle Verna and the Scientific Advisory Committee

**Project number and name or topic:** 9520 - Marine Invasive Species Broadscale Survey in Prince William Sound

1. **Description of agenda item:** The Board is being asked to approve a sole source contract with the Smithsonian Environmental Research Center in an amount not to exceed \$156,629 for the *analysis (second) phase* of the project “Marine Invasive Species Broadscale Survey in Prince William Sound.” Funding for the analysis phase of this project is subject to approval in the FY2024 budget at the May Board meeting. The first phase of this project to conduct a broadscale survey across ten sites in Prince William Sound (PWS) was approved in the FY2023 budget; approval to enter into a contract was done at the January 2023 Board meeting. Scientists from the Smithsonian Environmental Research Center will travel to PWS in June and September 2023 to deploy and then retrieve PVC settlement panels that passively monitor for organisms throughout the summer season. Analysis of the settlement plates will occur after the plates are retrieved in September 2023 through May 2024. Final results are expected to be presented to the Board in September 2024.

2. **Why is this item important to PWSRCAC:** Invasive species are a continuous threat to Prince William Sound because they can be introduced in the ballast water and on the hulls of tankers transiting to and from the Valdez Marine Terminal. Risk of invasive species in Prince William Sound is considered high and the Council has supported monitoring and detection projects for decades. This project contributes to a long history of Council-sponsored projects on invasive species and adds to the depth of knowledge of invasive species across changes in onboard tanker management of ballast water and changes in environmental conditions that may increase the likelihood of successful invasion. If invasive species are detected, the results could inform rapid response strategies. This project also provides an opportunity to engage with our communities as scientists and staff travel to conduct field work.

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

<u>Meeting</u>	<u>Date</u>	<u>Action</u>
Board	5/5/2022	The Board adopted the FY2023 budget as presented during the budget workshop on April 27,2022, and as described in the Proposed FY2023 Budget Book dated April 18, 2022.
Board	1/26/2023	The Board authorized the Executive Director to enter into a sole source contract with the Smithsonian Environmental Research Center for the project Marine Invasive Species Broadscale Survey in Prince William Sound in an amount not to exceed \$60,254.

## FY2024 Marine Invasive Species Survey Analysis Contract Increase 3-3

4. **Summary of policy, issues, support, or opposition:** None.
5. **Committee Recommendation:** The Scientific Advisory Committee (SAC) supports this project. SAC was presented four different options for the second phase of this project, which follows the initial survey that will take place in summer 2023. After discussion and a presentation from the project contractor, SAC chose to support two of the four options which include conducting a morphological and genetic analysis. These options were chosen with consideration of project costs and likelihood of detecting invasive species.
6. **Relationship to LRP and Budget:** Project 9520 – Marine Invasive Species is in the approved FY2023 budget and annual workplan.

### **9520 - Marine Invasive Species**

As of March 20, 2023

Original Budget	\$64,754.00
Revised Budget	\$75,399.00
Actual & Commitments	\$12,015.91
<b>Amount Remaining</b>	<b>\$63,383.09</b>

7. **Action Requested of the Board of Directors: Action Requested of the Board of Directors:** Authorize a contract increase of \$156,629 to contract 9520.23.01 - Marine Invasive Species Broadscale Survey in Prince William Sound with the Smithsonian Environmental Research Center for a new cumulative contract total of \$216,883. (Note: \$60,254 of the proposed contract was approved in FY2023. This action is contingent upon approval of the FY2024 budget adding new funding of \$156,629 for a cumulative contract total of \$216,883.)
8. **Alternatives:** None recommended.
9. **Attachments:** None.

**Consent Agenda Briefing for PWSRCAC Board of Directors – May 2023**

**ACTION ITEM**

**Sponsor:** Joe Lally, Director of Programs  
**Project number and name or topic:** Committee Member Appointments

1. **Description of agenda item:** This agenda item is to request that the Board support the volunteer membership of the committees by the appointment of renewals to a two-year term to the committees listed below:

**Scientific Advisory Committee (SAC)**

Wei Cheng	Renewal
John Kennish	Renewal
Dorothy Moore	Renewal
Roger Green	Renewal
Wayne Donaldson	Renewal

Note: The committee consists of nine members including renewals.  
Directors on SAC: Dorothy Moore, Wayne Donaldson

**Terminal Operations and Environmental Monitoring Committee (TOEM)**

Harold Blehm	Renewal
Mikkel Foltmar	Renewal
Steve Goudreau	Renewal
Tom Kuckertz	Renewal

Note: The committee consists of seven members including renewals.  
Directors on TOEM: Amanda Bauer

**Oil Spill Prevention and Response Committee (OSPR)**

Gordon Scott	Renewal
Skye Steritz	Renewal
Matt Melton	Renewal

Note: The committee consists of seven members including renewals and new members.  
Directors on OSPR: Robert Beedle, Mike Bender, Jim Herbert

**Port Operations and Vessel Traffic Systems (POVTS)**

Gordon Terpening	Renewal
Max Mitchell	Renewal
Steve Lewis	Renewal

Note: The committee consists of five members including renewals.  
Directors on POVTS: Amanda Bauer, Robert Archibald

**Information and Education Committee (IEC)**

Trent Dodson	Renewal
Jane Eisemann	Renewal
Cathy Hart	Renewal
Andrea Korbe	Renewal

## Annual Technical Committee Member Appointments 3-4

Savannah Lewis

Renewal

Note: The committee consists of eight members including renewals.

Directors on IEC: Aimee Williams

2. **Why is this item important to PWSRCAC:** Maintaining a strong committee membership has been a high priority for PWSRCAC. The committees are an integral component of PWSRCAC's work and require strong volunteer membership.
3. **Summary of policy, issues, support or opposition:** Selection criteria for committee members per Board policy 507 includes: 1) experience or background in a technical field; 2) having a stake in safe oil transportation and/or terminal operations; 3) residents of the EVOS region given preference; 4) objectivity; and 5) special skills or expertise;. Additionally, at least one Board member shall serve on each PWSRCAC standing committee.
4. **Committee Recommendation:** The Committees all endorse these renewals.
5. **Relationship to LRP and Budget:** Committee expenses tend to increase with the size of the committee but have always been an important part of the PWSRCAC budget. In the past, the Board supported limiting committee membership to eight volunteers plus Board members.
6. **Action Requested of the Board of Directors:** Appoint committee members to two-year terms on their respective committees.
7. **Alternatives:** None proposed.
8. **Attachments:** The meeting attendance for the last three years for all committee members is in section 2-4 of the meeting packet. Applications for new members are provided to Board members only [upon request](#). At the time this briefing sheet was prepared there were no new members seeking appointment.

**Consent Agenda Briefing for PWSRCAC Board of Directors – May 2023**

**ACTION ITEM**

**Sponsor:** Linda Swiss and the Oil Spill  
Prevention and Response Committee

**Project number and name or topic:** 651 - Contingency Plan Review

1. **Description of agenda item:** In January 2010, the Board approved a process where contractors are selected to provide technical advice on contingency plan reviews every five years. The method involves a full competitive bid process through a Request for Qualifications (RFQ). An evaluation team made up of staff and volunteers review and rank submittals to the RFQ, and contractors are selected to provide expert advice. Each contractor selected verifies on an annual basis their availability to provide expert advice to the PWSRCAC.

Since FY1998, work on projects related to oil spill prevention and response contingency plans (c-plans) has been managed using pre-qualified contractors. The primary project manager administers the contracts, and the c-plan project team discusses specific activities and makes recommendations for action to be taken. Pre-identifying technical experts/contractors for use in PWSRCAC's review of c-plans and various issues associated with the plans is a timesaving and cost-effective process.

The process for selecting pre-qualified technical experts for Project 651 - Oil Spill Prevention and Response Planning began in March 2023. A Request for Qualifications was advertised on the PWSRCAC.org website and sent to potential contractors. Submittals were evaluated and selected, and the following contractors were selected for approval by the Board at the May 2023 meeting:

- (1) Nuka Research and Planning, LLC.
- (2) Attorney Breck Tostevin

2. **Why is this item important to PWSRCAC:** The tanker and terminal c-plan approval process includes important actions that could potentially impact every member organization, as c-plans outline response and prevention activities that a spiller will be required to undertake to protect our region's shorelines, resources, and communities in the event of a spill. Review of c-plans is a major task for PWSRCAC as outlined in both the PWSRCAC/Alyeska contract and OPA 90. Having adequate expertise readily available to perform c-plan reviews and tasks related to the plans, a process that is often driven by external deadlines, is key to PWSRCAC fulfilling its c-plan review mission objectives. It is important to be prepared and to have the expertise and resources readily available to address issues as they arise.

The Prince William Sound Tanker Oil Discharge Prevention and Contingency Plan (Tanker C-Plan) was renewed in February 2022 and expires in 2027. The Valdez Marine Terminal Oil

## Approval of FY2023 Contingency Plan Contractor Pool 3-5

Discharge Prevention and Contingency Plan (VMT C-Plan) was renewed in November 2019, and expires in November 2024.

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

<b><u>Meeting</u></b>	<b><u>Date</u></b>	<b><u>Action</u></b>
Board	May 2017	Approved individual contracts with Brendan Environmental, E-Tech Environmental, Harvey Consulting, Nuka Research and Planning, Pegasus Environmental for professional services with the aggregate total not to exceed the amount approved for 651 Contingency Plan Review in the FY2018 budget, and delegate authority to the Executive Director to enter into individual contracts with selected consultants.
Board	Sept 2017	Approved individual contracts with Sharry Miller and 152 Degrees West Environmental Services with the aggregate total not to exceed the amount approved for 651 Contingency Plan Review in the FY2018 budget.
Board	May 2018	Approved individual contracts with Harvey Consulting, Integrity Environmental, Nuka Research and Planning, and Shannon & Wilson for professional services with the aggregate total not to exceed the amount approved for 651 Contingency Plan Review in the FY2019 budget, and delegate authority to the Executive Director to enter into individual contracts with selected consultants.
Board	May 2019	Approved individual contracts with Harvey Consulting, Integrity Environmental, Nuka Research and Planning, and Shannon & Wilson for professional services with the aggregate total not to exceed the amount approved for 651 Contingency Plan Review in the FY2020 budget, and delegate authority to the Executive Director to enter into individual contracts with selected consultants.
Board	May 2020	Approved individual contracts with, Integrity Environmental, Nuka Research and Planning, Polaris Applied Sciences, Shannon & Wilson, and 152 Degrees West Environmental Services for professional services with the aggregate total not to exceed the amount approved for 651 Contingency Plan Review in the FY2021 budget, and delegate authority to the Executive Director to enter into individual contracts with selected consultants.
XCOM	July 2020	Approved Attorney Breck Tostevin to the selected contingency plan contractor list, and delegate authority to the Executive Director to enter into individual contracts with the pre-approved selected consultants with the aggregate total not to exceed \$80,000.
Board	May 2021	Approved individual contracts with Attorney Breck Tostevin, Nuka Research and Planning, Polaris Applied Sciences, and Shannon & Wilson for professional services with the aggregate total not to exceed the amount approved for 651 Contingency Plan Review in the FY2023 budget, and delegate authority to the Executive Director to enter into individual contracts with selected consultants.
Board	May 2022	Approved individual contracts with Attorney Breck Tostevin, Nuka Research and Planning, and Polaris Applied Sciences for professional services with the aggregate total not to exceed the amount approved for 651 Contingency Plan Review in the FY2023 budget, and delegate authority to the Executive Director to enter into individual contracts with selected consultants.

4. **Summary of policy, issues, support or opposition:** Over the years, Board members have expressed some concern regarding PWSRCAC's use of pre-qualified experts/consultants. The OSPR Committee addressed this process in an effort to improve it and made the following recommendation, which was approved by the Board at the January 2010 meeting:



## Approval of FY2023 Contingency Plan Contractor Pool 3-5

**Process for Contingency Plan Contractor Selection:** Advertise Request for Qualifications (RFQ) for contingency plan contractor technical support every five (5) years. Selected contractors will be included on a list of qualified contingency plan contractors and will be valid for a five-year term. Interested contractors are welcome to submit qualifications at any time to be considered for inclusion on the list of qualified contractors. The list of qualified contingency plan contractors will be submitted to the Board for approval at the next Board meeting following OSPR Committee recommendation. An annual letter will be submitted to contractors on the list to confirm availability and any other changes.

The Board has recognized that the current RFQ method appears to be the most time-efficient, cost-saving process so far identified for managing the c-plan review process and related tasks.

5. **Committee Recommendation:** The OSPR Committee recommended the list of pre-selected contractors for FY2024 for Board approval.
6. **Relationship to LRP and Budget:** Project 651 Contingency Plan Review is in the approved FY2023 budget and annual work plan. The proposed FY2024 budget for project 651 is \$80,000. Please refer to the approved FY2024 budget for the most up-to-date amount.
7. **Action Requested of the Board of Directors:** Authorize individual contracts with Nuka Research and Planning, LLC. and Attorney Breck Tostevin for professional services with the aggregate total not to exceed the amount approved for 651 Contingency Plan Review in the final FY2024 budget, and delegate authority to the Executive Director to enter into individual contracts with selected consultants.
8. **Attachments:** None.

**Consent Agenda Briefing for PWSRCAC Board of Directors – May 2023**

**ACTION ITEM**

**Sponsor:** Donna Schantz & Ashlee Hamilton  
**Project number and name or topic:** 100 – Annual Alyeska Contract Compliance Verification Report

1. **Description of agenda item:** Staff is seeking approval of the annual contract compliance verification report required by the FY2010 audit settlement between Alyeska and PWSRCAC.
2. **Why is this item important to PWSRCAC:** The 2010 Audit Settlement Agreement between PWSRCAC and Alyeska states that PWSRCAC will have its Executive Director and Financial Manager annually review the organization’s compliance with the terms and conditions of the contract with Alyeska and will report the results of this review to the PWSRCAC Board.
3. **Previous actions taken by the Board on this item:** A version of the Contract Compliance Verification report has been completed annually and approved by the Board since May 2013.
4. **Summary of policy, issues, support, or opposition:** Since 2012, the Council has had its financial statement auditor perform additional agreed upon procedures to help in validating contract compliance. The Finance Committee has reviewed the results of the BDO agreed-upon procedures report at its meeting on February 24, 2023.
5. **Committee Recommendation:** The Finance Committee reviewed a draft copy of the FY2022 PWSRCAC/Alyeska Contract Compliance Verification report prepared by Donna Schantz and Ashlee Hamilton at its meeting on April 24, 2023. The Finance Committee recommends that the full Board of Directors approve the report.
6. **Relationship to LRP and Budget:** None.
7. **Action Requested of the Board of Directors:** Accept the PWSRCAC/Alyeska Annual Contract Compliance Verification Report.
8. **Attachments:** Annual Contract Compliance Verification Report to be provided under separate cover. *(Board members only.)*

<b>Briefing for PWSRCAC Board of Directors – May 2023</b>
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**ACTION ITEM****Sponsor:** Board of Directors**Project number and name or topic:** Board of Directors 2023 Appointments

1. **Description of agenda item:** Several Directors' terms expire in May 2023. This briefing sheet outlines the nominations received from PWSRCAC member organizations.

<b>Member Organization</b>	<b>Director with Term expiring in 2023</b>	<b>Director Nominated by Member Organization</b>
City of Homer	Robert Archibald	Robert Archibald
City of Kodiak	Wayne Donaldson	Wayne Donaldson
City of Seldovia	Kirk Zinck	Kirk Zinck
City of Seward	Patrick Domitrovich	Mike Brittain
City of Valdez	Amanda Bauer	Amanda Bauer
Kenai Peninsula Borough	Mako Haggerty	Mako Haggerty
Kodiak Village Mayors' Association	Elijah Jackson	Elijah Jackson
Prince William Sound Aquaculture Corporation	Nick Crump	Nick Crump
Tatitlek Corporation & Tatitlek IRA Council	Angela Totemoff	Angela Totemoff

2. **Why is this item important to RCAC:** Two-year terms and regular confirmations of individuals on the Board of Directors are mandated by PWSRCAC Bylaws.
3. **Action Requested of the Board of Directors:** Confirm the two-year terms of the selected representatives for each of the member entities listed above, with a term set to expire at the May 2025 annual meeting.
4. **Attachments:** None.

**Briefing for PWSRCAC Board of Directors – May 2023**

**INFORMATION ITEM**

**Sponsor:** Linda Swiss and Oil Spill Prevention and Response Committee

**Project number and name or topic:** 6000 – Oil Spill Prevention and Response Planning Program – Regulatory Update

1. **Description of agenda item:** Staff will provide an update on the Alaska Department of Environmental Conservation's (ADEC) changes to Article 4 of 18 AAC 75 oil discharge prevention and contingency plan regulations. Information on these changes can be found on [ADEC's website](#). A 90-day public review of proposed changes ran from November 2021 to January 2022. Following that review, ADEC issued updated oil spill regulations in January 2023, which became effective February 5, 2023.

PWSRCAC supports the world-class oil spill prevention and response system in place in Prince William Sound and covering the entire State of Alaska. The current system is a direct result of post-Exxon Valdez spill laws and regulations designed to protect Alaskans and the environment, as well as commercial and sport fishing, aquaculture, recreation, tourism, subsistence, and cultural interests.

2. **Why is this item important to PWSRCAC:** Maintaining strong oil spill prevention and response standards is a key objective for PWSRCAC. Rollbacks in regulations have the potential to result in weakening and erosion of the existing prevention and response system. PWSRCAC previously commissioned a report detailing the history and legislative intent of Alaska's strong Response Planning Standards, titled "[Alaska's Oil Spill Response Planning Standard - History and Legislative Intent](#)". Every individual interviewed for this report spoke about their involvement in creating and establishing Alaska's response planning standards with a profound sense of accomplishment. These same individuals were adamant that if the system created after the 1989 spill were to be weakened or removed, Alaskans would face an increased risk of reliving an event that is still deeply impressed upon all who lived through it. We must learn from history and endeavor never to repeat catastrophic events of the past.

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

Meeting	Date	Action
Board	10/29/19	Approved Resolution 19-03 "Safeguarding Alaska's Oil Spill Prevention and Response Standards."
Board	10/29/19	Approved a budget modification adding \$40,000 to 6000 Oil Spill Response program/professional services for regulatory review assistance.

4. **Summary of policy, issues, support, or opposition:** PWSRCAC does not support any legislative or regulatory changes that erode oil spill prevention and response standards, increase the risk of a catastrophic spill, or demonstrate a return to complacency

## Review of ADEC's Changes to Article 4 Regulatory Update 4-2

on the part of oil industry and regulators that Congress determined to be a primary cause of the Exxon Valdez oil spill. PWSRCAC also believes that if the system created after the 1989 spill is weakened, Alaskans will likely face an increased risk of reliving another major oil spill that could damage Alaska's commercial, sport, and subsistence fishing; sport and subsistence hunting; other businesses; fish, wildlife, and environment; and the culture and quality of life of the people.

5. **Committee Recommendation:** Committees have been notified and kept updated on ADEC's public review of 18 AAC 75.

6. **Relationship to LRP and Budget:** Monitoring ADEC's changes to Article 4 of 18 AAC 75 oil discharge prevention and contingency plan regulations falls under the 6000 – Oil Spill Response Program in the approved FY2023 budget.

### **6000 - Spill Response Program**

As of March 20, 2022

Original Budget	\$9,200.00
Revised Budget	\$4,200.00
Actual & Commitments	\$0.00
<b>Amount Remaining</b>	<b>\$4,200.00</b>

7. **Action Requested of the Board of Directors:** None, item is for information only.

8. **Attachments:** None.

**Briefing for PWSRCAC Board of Directors – May 2023**

**ACTION ITEM**

**Sponsor:** Austin Love and the Scientific Advisory Committee

**Project number and name or topic:** 9510 – Long-Term Environmental Monitoring Program

1. **Description of agenda item:** This agenda item seeks Board acceptance for two related reports. The first is titled “Executive Summary: Effects of the April 2020 oil spill detected in study of mussel genes.” The executive summary report was written for the Board of Directors as the intended audience. The second report is titled “Transcriptomic responses to an Alaskan oil spill over time reveal a dynamic multisystem involvement in exposed mussels (*Mytilus trossulus*).” This full-length report was written for the scientific audience and the authors plan to submit this report to a peer reviewed journal for publication. The two reports summarize and detail additional research conducted to understand the environmental impacts of the April 12, 2020 oil spill from the Valdez Marine Terminal, as well as future potential spills. Dr. Lizabeth Bowen, the lead author on the reports, will provide a presentation of the key results of the research and recommendations for further related work.

2. **Why is this item important to PWSRCAC:** The Long-Term Environmental Monitoring Program (LTEMP) helps PWSRCAC fulfill one of its duties detailed in the Oil Pollution Act of 1990. The Act instructs the PWSRCAC to “devise and manage a comprehensive program of monitoring the environmental impacts of the operations of terminal facilities and of crude oil tankers while operating in Prince William Sound.” The work done under the Council’s Long-Term Environmental Monitoring Program is planned by the Scientific Advisory Committee to achieve that Oil Pollution Act mandate.

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

<u>Meeting</u>	<u>Date</u>	<u>Action</u>
Board	1/23/2020	The Board accepted of the “Port Valdez Mussel Transcriptomics” report by Lizabeth Bowen of the U.S. Geological Survey, dated November 20, 2019, as meeting the terms and conditions of contract number 951.20.06, and for distribution to the public.
Board	5/21/2020	Approval of FY2021 Contracts for Project 9510 LTEMP - Authorizing a contract negotiation with the United States Geological Survey, for work to be performed under LTEMP, at an amount not to exceed \$65,371.
Board	5/6/2021	The Board accepted the report titled “Using Mussel Transcriptomics for Environmental Monitoring in Port Valdez, Alaska: 2019 and 2020 Pilot Study Results”, dated February 17, 2021, as meeting the terms and conditions of contract number 951.21.06 and for distribution to the public.
Board	5/21/2021	Approval of FY2022 LTEMP Contracts for Project 9510: The Board Authorized individual contracts with Newfields Environmental Forensics Practice, Oregon State University, and the United States Geological Survey (USGS) with the aggregate total not to exceed the amount approved in the final FY2022 LTEMP budget (\$147,720) for contract expenses, and delegated authority to the

## Report Acceptance: LTEMP Transcriptomics 4-3

		Executive Director to enter into individual contracts with the aforementioned consultants.
Board	1/27/2022	Report Acceptance: Impacts from the April 2020 VMT Spill: The Board accepted the report titled "Mussel Oiling and Genetic Response to the April 2020 Valdez Marine Terminal Spill: Executive Summary" by Lizabeth Bowen, William B. Driskell, James R. Payne, Austin Love, Eric Litman, and Brenda Ballachey, dated August 20, 2021, as meeting the terms and conditions of Contract 951.21.05 and research contribution 951.21.07, and for distribution to the public.
XCOM	4/28/2022	Approval of full-length, April 2020 oil spill environmental monitoring report: The Executive Committee accepted the report titled "Mussel Chemistry and Transcriptomic Response after a Minor Alaskan Oil Spill" dated September 22, 2021 as final and for public distribution.

4. **Summary of policy, issues, support, or opposition:** The Council has been supporting the use of transcriptomic analytical techniques as part of LTEMP since first working with Dr. Lizabeth Bowen, from the U.S. Geological Survey, in 2019. Transcriptomics is a method in which the expression of genes within an organism can be analyzed to understand how environmental factors, such as oil spills, may be harming the organism. The organisms used in LTEMP are blue mussels. The Scientific Advisory Committee has been interested in potentially integrating transcriptomics techniques as a permanent edition to LTEMP and recommended pilot studies of its potential use in 2019 and 2020. Those two pilot studies were conducted, but then the April 2020 oil spill from the Valdez Marine Terminal occurred, which presented a unique opportunity to evaluate the utility of using transcriptomics as part of LTEMP and to monitor spills of Alaska North Slope crude oil specifically. Therefore, additional Council funding and effort was resourced to utilize transcriptomics to understand the impacts of the April 2020 oil spill, and research if transcriptomics should become a permanent part of LTEMP.

The two reports that are up for acceptance are deliverables associated with the additional funding the Council allocated toward monitoring the impacts of the April 2020 oil spill and researching the utility of transcriptomic environmental monitoring. With these two reports completed and with the previous related "pilot study" reports by Dr. Bowen and colleagues, the Scientific Advisory Committee plans to discuss if transcriptomic techniques should become a regular part of LTEMP.

5. **Committee Recommendation:** The Scientific Advisory Committee will be meeting on April 5, 2023 to consider voting on the following recommendation:

- Recommend the Board accept the reports titled "Executive Summary: Effects of the April 2020 oil spill detected in study of mussel genes." and "Transcriptomic responses to an Alaskan oil spill over time reveal a dynamic multisystem involvement in exposed mussels (*Mytilus trossulus*)" by Lizabeth Bowen, William B. Driskell, Brenda Ballachey, James R. Payne, Shannon Waters, Eric Litman, and Austin Love as meeting the terms and conditions of research contribution number 951.22.07, and for distribution to the public.

The results of that vote by the Scientific Advisory Committee regarding that recommendation will be provided during the May 4-5, 2023 Board meeting in Valdez.

6. **Relationship to LRP and Budget:** Project 9510 – Long-Term Environmental Monitoring is in the approved FY2023 budget and annual work plan.

**9510 – Long-Term Environmental Monitoring Program**

As of March 20, 2023

Original Budget	\$104,878
Revised Budget	\$71,129
Actual & Commitments	\$50,415
<b>Amount Remaining</b>	<b>\$20,713</b>

7. **Action Requested of the Board of Directors:** Accept the reports titled “Executive Summary: Transcriptomic responses to an Alaskan oil spill over time reveal a dynamic multisystem involvement in exposed mussels” and “Transcriptomic responses to an Alaskan oil spill over time reveal a dynamic multisystem involvement in exposed mussels (*Mytilus trossulus*)” by Lizabeth Bowen, William B. Driskell, Brenda Ballachey, James R. Payne, Shannon Waters, Eric Litman, and Austin Love as meeting the terms and conditions of research contribution number 951.22.07, and for distribution to the public.

8. **Alternatives:** None.

9. **Attachments:**

A: Report titled “Executive Summary: Transcriptomic responses to an Alaskan oil spill over time reveal a dynamic multisystem involvement in exposed mussels” by Lizabeth Bowen, William B. Driskell, Brenda Ballachey, James R. Payne, Shannon Waters, Eric Litman, and Austin Love.

B: The full-length scientific report titled “Transcriptomic responses to an Alaskan oil spill over time reveal a dynamic multisystem involvement in exposed mussels (*Mytilus trossulus*)” by Lizabeth Bowen, William B. Driskell, Brenda Ballachey, James R. Payne, Shannon Waters, Eric Litman, and Austin Love is available [HERE](#).



# Executive Summary: Effects of the April 2020 oil spill detected in study of mussel genes

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Lizabeth Bowen<sup>1</sup>, William B. Driskell<sup>2</sup>, Brenda Ballachey<sup>3</sup>, James R. Payne<sup>4</sup>, Shannon Waters<sup>1</sup>, Eric Litman<sup>5</sup>, Austin Love<sup>6</sup>

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<sup>4</sup>*Payne Environmental Consultants, Encinitas, CA*

<sup>5</sup>*NewFields Environmental Forensics Practice LLC, Mansfield, MA*

<sup>6</sup>*Prince William Sound Regional Citizens' Advisory Council, Valdez, AK*

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The opinions expressed in this commissioned report are not necessarily those of PWSRCAC.

**March 2023**

PWSRCAC Contract 951.22.07

The final, full-length report for this project is being prepared for publication in a peer-reviewed journal.

## Introduction

On April 12, 2020, a minor oil spill was reported at the Valdez Marine Terminal (VMT) in Port Valdez, Alaska. An estimated 1,400 gallons (~34 barrels) of Alaska North Slope (ANS) crude oil overflowed from an onshore sump well and subsequently reached the shoreline, creating slicks and necessitating a full-scale marine cleanup response. Recognizing a “spill of opportunity,” the Prince William Sound Regional Citizens’ Advisory Council’s (PWSRCAC) Scientific Advisory Committee (SAC) initiated a special project to measure oil exposures and genetic response in shoreline mussels from this spill.

This executive summary report builds on previous work conducted by the PWSRCAC to monitor the environmental impacts of the April 2020 oil spill. That work was reported in two prior reports: (1) “Mussel Oiling and Genetic Response to the April 2020 Valdez Marine Terminal Spill: Executive Summary” dated August 2021, and (2) “Mussel Chemistry and Transcriptomic Response after a Minor Alaskan Oil Spill” dated September 2021. The biggest difference between the previous work and the new results presented here is that only 14 mussel genes were analyzed initially, whereas this follow-up study evaluated more than 7,000 blue mussel genes for oil exposure effects.

The goals of the project were to determine:

- 1) How soon do mussels purge themselves of oil and return to background levels?
- 2) What genes are turned on or off in response to oiling and can they be used diagnostically for detecting or tracking future spills?
- 3) Does the gene activity of mussels indicate they are impacted by oil spills longer than indicated by standard hydrocarbon chemistry analysis?
- 4) Can the genetic response of mussels be used to tell the difference between exposure to ANS crude versus harbor oil-derived contaminants?

In summary, the initial work considering 14 genes and the additional analysis looking at more than 7,000 blue mussel genes demonstrate the merits of combining hydrocarbon chemistry and genetics to evaluate the extent and persistence of oil spill effects. Using gene transcription and hydrocarbon analyses together enabled detection of physiological effects persisting in the mussels as hydrocarbon levels

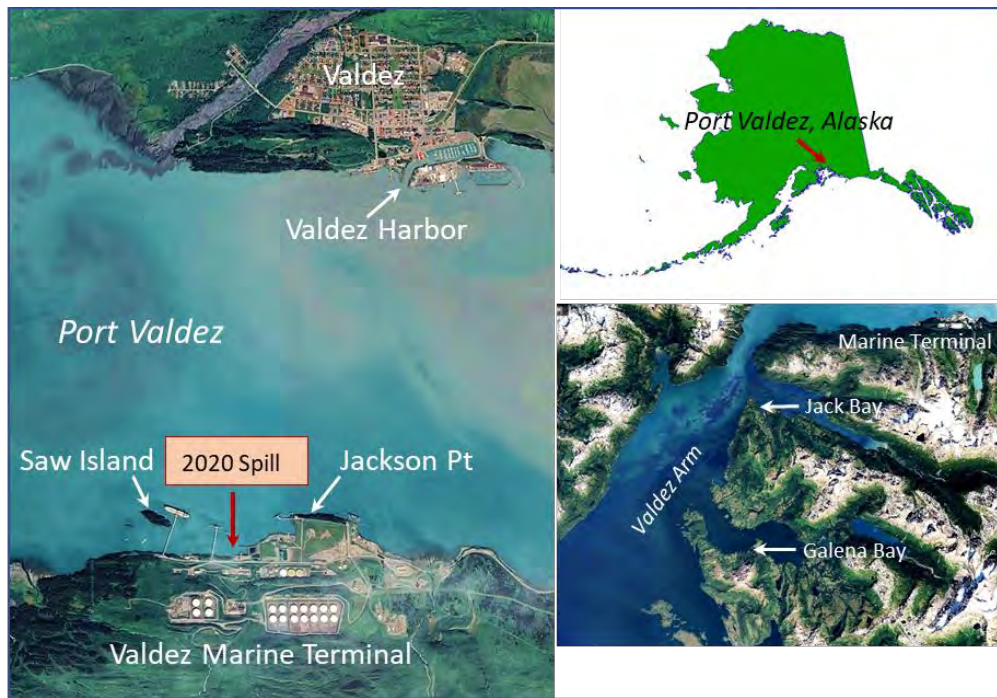
dropped. Our novel findings demonstrate the benefit of combining chemistry and genetics to evaluate the extent and duration of spill effects. Recommendations are provided at the end of this report that could be used by PWSRCAC to incorporate genetic methods as a regular part of the Council's Long-Term Environmental Monitoring Program (LTEMP).

## Methods & Results

Starting 18 days after the initial spill (4/30/2020), mussels were sampled for 15 weeks until mid-August. Most mussels were collected at the spill location just outside the VMT harbor (Figure 1). Mussels were also collected at sites sampled annually for the Council's LTEMP including Saw Island and Jackson Point (Figure 2). About 40 days post-spill, mussels were collected from remote unoiled sites in Jack Bay and Galena Bay to serve as clean references, as well as from the entrance of the Valdez Harbor (Figure 2). The Valdez Harbor mussels were collected to understand how the genetic response of mussels exposed to oil pollution from a harbor may differ from mussels exposed to ANS crude oil.



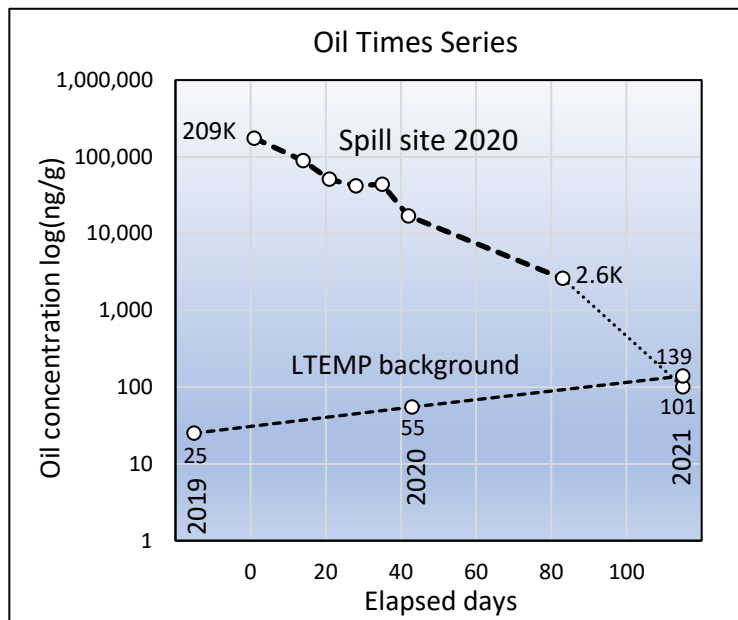
**Figure 1.** Containment booms placed around the spill site (red arrow) and in adjacent waters at the Valdez Marine Terminal. Saw Island is in the background upper left, adjacent to a Berth 5 tanker. Image from Alyeska Pipeline Service Company.



**Figure 2.** Overview of Port Valdez showing the April 12, 2020 intertidal spill location at the Valdez Marine Terminal. Mussels were sampled at the spill site and LTEMP sites at Jackson Point and Saw Island. Regional “background” mussel samples were collected at Jack Bay and Galena Bay, and at the entrance to the Valdez Harbor.

Mussel oil exposure from this spill was measured using traditional hydrocarbon-chemistry methods standard for LTEMP and reported here as individual and total polycyclic aromatic hydrocarbons (TPAH). As expected, initial TPAH concentrations were extremely high after the spill and then declined towards lower levels over the course of the 111-day project (Figure 3). Day 1 of this study (shown as “elapsed days” in Figure 3) was 18 days after the spill occurred. Chemistry analyses were conducted on mussel samples until day 82 of the study. On day 41, the spill-site mussels were still 300 times more contaminated than standard LTEMP mussels. At the project’s final sampling in July 2020 (day 82), concentrations in spill-site mussels remained 100 times greater than the 2019 background LTEMP concentrations, suggesting that intermittent, low-sheening exposures may have continued through, and likely after the end of this effort to specifically monitor the impacts of the April 12<sup>th</sup> spill. That hypothesis is supported by visual observations from Alyeska personnel who observed small amounts of sheening from the spill site during higher than average tides, well after the spill occurred.

One of three spill-site mussel samples collected during routine LTEMP sampling a year later (June 2021) showed near-background level hydrocarbons (101 nanograms per gram or ng/g in Figure 3) with evidence of oil but not necessarily from the spill. In other words, by July 2021, concentrations of oil in the spill site mussels had returned to low level, baseline concentrations.

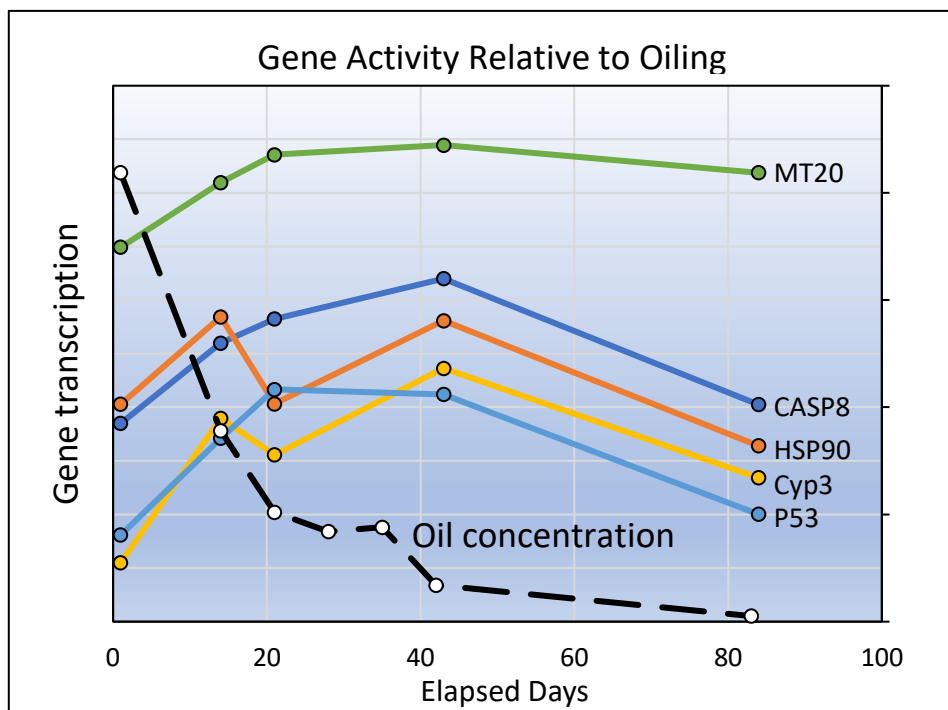


**Figure 3.** Concentrations of oil in mussels declined 80-fold during the 82-day sampling period from April 30 to August 19, 2020. However, the concentrations in August 2020 (day 82) were still above levels measured during regular LTEMP sampling in 2019 and 2020. By July 2021, oil concentrations in the spill site mussels returned to low, near-normal LTEMP levels (139 ng/g measured at spill site vs. 101 ng/g measured at regular LTEMP sites near the Valdez Marine Terminal).

Using genetic techniques to monitor environmental impacts on organisms is becoming more commonplace, and through this project, SAC is trying to understand if such techniques should become a part of the regular LTEMP scope of work, which has historically relied on hydrocarbon chemistry methods to monitor oil contamination. In this project, transcriptomic techniques were used to assess how the oiled mussels were responding to the spill. Transcriptomics involves the study of RNA molecules being produced within a cell. Transcription is the process in which DNA in the genes is converted into RNA molecules, which are then used to create specific proteins within a cell. By measuring which RNA molecules, and how many of

them, are being produced inside an organism, transcriptomics can be used to understand how that organism is genetically responding to environmental stressors such as oil spills.

Mussel gene transcription activity was assessed twice in relationship to the April 2020 oil spill. Initially only 14 genes were analyzed (2020), and then the scope was expanded to consider all the mussel genes (this study). During the 2020 initial study of the oiled mussels, the tissue samples were analyzed using an abbreviated suite of 14 genes that were previously used for similar projects in the region, funded in part by the *Exxon Valdez* Oil Spill Trustee Council. In the initial study, five genes responded to oiling with similar time series patterns (Figure 4). There was an initial lag followed by increased expression that eventually dropped back to near-reference levels by mid-August. In contrast, oil concentrations fell from very high to significantly lower at that time, but still 100x background amounts (Figure 3). Although oil concentrations in the mussels had declined significantly by August 2020, genetic response to the oil spill was still evident.



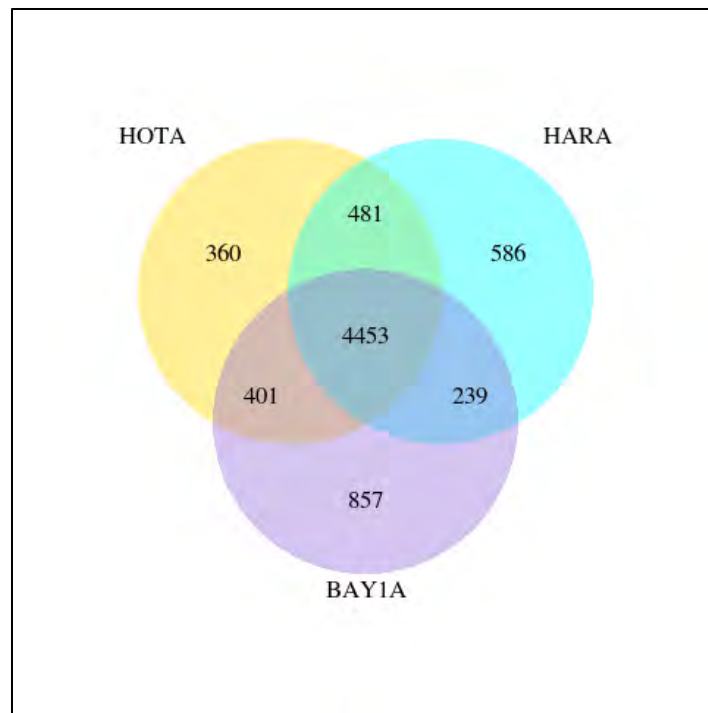
**Figure 4.** Initial study results showing gene activity trends as oiling levels decrease. Solid colored lines are five genes from original 14 gene panel (Bowen et al., unpublished data).

Following the 2020 initial project, the SAC approved using these same oiled mussel samples for an expanded look at the complete transcriptome (i.e., all the genes being expressed by the mussels at the time of the spill). The goal was to assess all genes and then focus on those genes behaving differently among the spill site, the Valdez Harbor, and the “clean” reference site mussels (Jack and Galena Bay, Figure 2). The key question this expanded transcriptomics study was attempting to answer was “could the genetic response of mussels be used to tell the difference between exposure to ANS crude vs versus harbor oil-derived contaminants?”

Analyzing and interpreting the complete transcriptome data has been a complicated and challenging task. One issue of working with Pacific blue mussels (*Mytilus trossulus*) is that their genes are less well studied compared to the more globally occurring Mediterranean mussel (*M. galloprovincialis*). Due to the relative lack of data on Pacific blue mussels, Mediterranean mussels were used for the reference DNA dataset. As a result, while the transcription analysis reported over 7,000 *Mytilus trossulus* genes active during the 2020 oiled mussel time series, only 66% of those genes could be identified and attributed to a presumed biological function.

To achieve any success with this superabundance of genetic data, the analytic focus had to be limited to those functions, either biological, cellular, or molecular, that from other studies were attributed to systems known to be impacted by oiling. Further, in the data presented here, the genes of interest were limited to those that displayed expression trends that appeared significantly responsive to oiling. Four approaches were used to examine the mussel transcription data: Venn diagrams, Kyoto Encyclopedia of Genes and Genomes (KEGG) pathway functionality, Gene Ontology functions, and selected gene trends.

The Venn diagram (Figure 5) shows the overlaps of how many genes had levels of expression in common between sites. “HOTA” represents spill site mussels, “HARA” represents Valdez Harbor mussels, and “BAY1A” represents Galena and Jack Bay mussels. Note that there are genes unique to each treatment group. Some portion of the 360 + 481 genes identified in mussels collected at the spill site (HOTA) whose expression is unique from the reference mussels (BAY1A) are presumed to be related to oiling response (e.g., from ANS crude oil or harbor oiling sources such as spilled diesel fuel).



**Figure 5.** Counts of distinct and common mussel gene expression between sites, from full transcriptome analysis. HOTA is the spill site (see Figure 2); HARA is the Valdez Boat Harbor; and BAY1A is the unoiled Galena and Jack Bay sites.

From another perspective, the field of bioinformatics (i.e., using computers and software tools to understand large and complex biological datasets) has progressed such that most genes can be identified and assigned a presumed function. Two separate bioinformatic approaches, KEGG and Gene Ontology functions, were used to examine the active pathways and functional groupings for oiling effects. These analyses compared each sampling to the unoiled reference sample (BAY1A) and plotted statistical differences or pathway linkages (although both HOTA and HARA were compared to BAY1A, in this report our focus is on results for HOTA). The overall results showed a very dynamic system of gene expression changing throughout the time series.

Finally, from published studies, genes selected by their functional relationship to oil detoxification were plotted and examined for distinctive time trends. From this effort, a “short” list of 50+ prospective genes of potential interest was assembled to address the project objectives. These genes of interest appear within the gene families of Table 1 below. These prospects will require further validation either in another spill-



of-opportunity or better, in a controlled environment (at a toxicity lab or an oil-spill wave tank).

**Table 1.** Genes identified for potential use in a new transcription. Listed genes were chosen (A) to distinguish between spill-site responses and unoilied reference sites (Jack and Galena Bays) and (B) to potentially differentiate between Valdez Marine Terminal spill site and Valdez Harbor (ANS crude oil versus vessel exhaust and diesel contamination at harbor).

(A) Spill site vs Reference sites

Gene or gene family	Number of genes
ABC (ATP-binding cassette)	8
Glutathiones	18
Heat shock proteins	9
Helicase	26
Immune related	21
Kinesin	11
Meiosis	7
Neurotransmitter	9
Oxidative stress response	1
Cytochrome P450	7
RNA recognition motif	24
General stress	3
Superoxide dismutase	2
Tumor necrosis family	16
Ubiquitin	39

(B) Spill site vs Valdez Harbor

Gene or gene family	Number of genes
ABC (ATP-binding cassette)	13
Glutathiones	16
Heat shock, HSP, chaperone	21
Helicase	1
Immune related	35
Neurotransmitter	11
Cytochrome P450	7
RNA recognition motif	4
General stress	9
Superoxide dismutase	3
Tumor necrosis factor	11
Ubiquitin	49

## Conclusions

Several conclusions were reached:

- Lower levels of oil were still present in spill-site mussels by the final sampling in mid-July, 82 days after sampling began. These levels were still 50-100x greater than LTEMP background levels from 2019-2020, which suggests that intermittent sheening possibly was still occurring by the end of sampling.
- From the time series of transcriptome differences:
  - gene activities related to oil detoxification and recovery processes were identified.
  - in multiple pathways, gene activities did not return to reference-site levels, suggesting that recovery from hydrocarbons was not complete by final sampling. This may have been due to the presumed residual sheening.
- Transcriptome differences among the three sites:
  - gene responses known to occur with oil exposure were identified in the spill site vs the unoiled sites.
  - genes that could potentially distinguish between ANS crude oil and harbor contaminants (pyrogenics and diesel) were identified.

In this project, gene transcription analyses have advanced our understanding of spill effects on Pacific blue mussels (*Mytilus trossulus*). They have provided a unique opportunity to compare transcriptomic responses of mussels from unoiled sites, a spill site (ANS crude oil), and a harbor (various oil-derived contaminants including those from diesel fuel and vessel exhaust). In previous years, only the hydrocarbon chemistry levels would have been reported and, if elevated, assessed against various reported toxic-effects levels.

In consideration of the advances made and insights gained, we recommend implementing transcription analyses as part of LTEMP monitoring and response protocols. However, the approach needs further development. In order to confidently incorporate any of the relevant genes identified in this study into new gene-transcript assay panels, they will need validation, preferably in a controlled or known exposure experiment.

Our findings will help to design improved monitoring programs and to better assess spill impacts and recovery. We also note that these data are not just applicable to

Alaskan marine environments. These methods and interpretations have the potential to globally inform other researchers and regulators regarding contaminant impacts and study designs for discharge- or spill-assessment programs.

## **Recommendations for future monitoring and spill response**

### **Research**

- If the gene prospects identified in this study are to be incorporated into new gene transcript assay panels, they should be validated in a controlled environment (at a toxicity lab or an oil-spill wave tank).
- Develop a gene assay panel inclusive for two potential oiling events, acute spill vs. routine monitoring.

### **Continuing LTEMP studies**

- The original 14-gene assay panel used in the 2020 initial study responded to this ANS crude spill. While developing a new panel from the prospective list of 50+ genes, continue using the current 14-gene panel for LTEMP monitoring.
- A limitation to this observational study was that the unoiled reference sites were only sampled once during the time series (6/9/2020). Any future study should include controls taken at the same timepoints as the oiled samples in the series.

**Briefing for PWSRCAC Board of Directors – May 2023**

**ACTION ITEM**

**Sponsor:** Austin Love, TOEM, and Scientific Advisory Committees

**Project number and name or topic:** 5640 – Alaska North Slope Crude Oil Properties

1. **Description of agenda item:** The Board is being asked to accept the report titled “Review of the 2019 Alaska North Slope Oil Properties Relevant to Environmental Assessment and Prediction” by Dr. Merv Fingas. Dr. Fingas based his report on analytical laboratory testing results provided by Environment and Climate Change Canada. Environment and Climate Change Canada performed physical and chemical tests on a November 2019 Alaska North Slope (ANS) Crude oil sample for the Council. Dr. Fingas interpreted how those lab results would influence the effectiveness of oil spill response measures including mechanical (e.g., booms, skimmers, etc.) and non-mechanical (e.g., dispersants) spill response measures. Dr. Fingas will provide a presentation summarizing the key findings of his report.

2. **Why is this item important to PWSRCAC:** Understanding the physical and chemical properties of ANS Crude Oil is critical when trying to plan for, respond to, and mitigate the short and long-term impacts of an oil spill in Prince William Sound. The physical and chemical properties of ANS Crude Oil change based on inputs from differing North Slope fields and how field output changes over time. Therefore, it is important to monitor those chemical and physical changes over time in order to plan for effective oil spill response and mitigation measures. The last Alaska North Slope Crude Oil sample the Council had analyzed was from 2015. In November 2019, the Council was provided with another oil sample and had it sent to Environment and Climate Change Canada for chemical and physical analyses.

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

<u>Meeting</u>	<u>Date</u>	<u>Action</u>
Board	9/16/2010	The Board accepted the report titled “Review of the North Slope Oil Properties Relevance to Environmental Assessment and Prediction” by Dr. Merv Fingas, Spill Science, Edmonton, Alberta, Canada dated June 2010 as meeting the terms and conditions of PWSRCAC’s contract.
XCOM	7/13/2016	The Executive Committee approved the report titled “Review of the 2015 Alaska North Slope Oil Properties Relevant to Environmental Assessment and Prediction” by Dr. Merv Fingas.

4. **Summary of policy, issues, support, or opposition:** The laboratory analysis of the 2019 ANS Crude Oil sample was greatly delayed because of the COVID-19 pandemic. The Environment and Climate Change Canada laboratory received the sample in November 2019. However, once the pandemic reached North America their crude oil analyses lab shutdown for all but the most essential work, with the limited lab capacity lasting for more

than a year. Environment and Climate Change Canada was able to complete the lab work and provide the results to the Council in September 2022.

It should be noted that Environment and Climate Change Canada did this lab work pro bono for the Council, work valued at approximately \$37,000.

The TAPS tanker companies that comprise the Response Planning Group had a 2019 ANS Crude Oil sample independently analyzed. That analysis and associated reporting was completed by SL Ross Environmental Research Ltd. in March 2020. The 2019 ANS Crude Oil samples analyzed by SL Ross and Environment and Climate Change Canada were split samples, meaning they were essentially identical. The Response Planning Group provided the Council with the results of the analytical work by SL Ross on the 2019 ANS Crude Oil sample.

The Response Planning Group was responsible for obtaining the 2019 ANS Crude Oil sample for the Council. The sampling is governed by a detailed standard operating procedure to ensure valid ANS Crude Oil samples are gathered for the “purpose of determining its properties” (SLR Consulting, 2012). The samples are gathered from the West Metering Building at the Valdez Marine Terminal. The Response Planning Group arranged and paid for the Council’s 2019 ANS Crude Oil sample getting shipped to Environment and Climate Change Canada.

5. **Committee Recommendation:** The Scientific Advisory Committee reviewed this report during their regular meeting on January 10, 2023, and recommended the following action “Accept the Review of ANS Oil Properties Report with minor revisions.”

6. **Relationship to LRP and Budget:** Project 5640 – Alaska North Slope Crude Oil Properties is in the approved FY2023 budget and annual work plan.

**5640 - Alaska North Slope Crude Oil Properties**

As of March 20, 2023

Original Budget	\$5,000.00
Revised Budget	\$4,500.00
Actual & Commitments	\$3,000.00
<b>Amount Remaining</b>	<b>\$1,500.00</b>

7. **Action Requested of the Board of Directors:** Accept the report titled “Review of the 2019 Alaska North Slope Oil Properties Relevant to Environmental Assessment and Prediction” by Dr. Merv Fingas as meeting the terms and conditions of contract number 5640.23.01, and for distribution to the public.

8. **Alternatives:** None.
9. **Attachments:** Draft report titled "Review of the 2019 Alaska North Slope Oil Properties Relevant to Environmental Assessment and Prediction" by Dr. Merv Fingas.

# Review of the 2019 Alaska North Slope Oil Properties Relevant to Environmental Assessment and Prediction

Prepared for

Prince William Sound Regional Citizens' Advisory Council (PWSRCAC)  
Anchorage, Alaska

by

Merv Fingas  
Spill Science  
Edmonton, Alberta, Canada

March 2023

The opinions expressed in this PWSRCAC-commissioned report are not necessarily those of  
PWSRCAC. PWSRCAC Contract #5640.23.01



## **Non-Technical Summary**

The Trans Alaska Pipeline System bringing Alaska North Slope (ANS) crude oil into Valdez carries different blends of the ANS oil depending on what oils are fed into the pipeline at Pump Station 1. After 2010, the blend of oils shifted dramatically with the absence of heavier crudes and the predominance of lighter oils. This had an influence on the possible environmental impacts of any spill of that oil, as well as on the effectiveness of countermeasures used to respond to a spill. Year by year, there continue to be changes in the composition of the ANS oil, more recently these changes are slight.

This paper is a summary of several oil parameters and the predicted spill behavior of a 2019 ANS sample provided to Environment and Climate Change Canada (Environment Canada). Environment Canada analysed the sample provided to them by PWSRCAC for environmental and physical parameters. As per a stipulation in the Prince William Sound tanker contingency plan, PWSRCAC receives an ANS crude sample at least every five years. PWSRCAC then has the oil samples analyzed for their physical and chemical properties.

The objectives of this report are to:

- Describe how the pertinent chemical and physical properties of this 2019 ANS sample affect mechanical (e.g., skimmers) and non-mechanical (e.g., dispersants) response methods;
- Describe how those properties affect the fate and transport of oil spilled in Prince William Sound; and
- Identify how the chemical properties of this sample have changed over time.

The 2019 sample of ANS oil was found to be similar to 2015 ANS oil, but different from samples in the more distant past. The essential parameters included in the analysis of the 2019 ANS crude are the oil viscosity, density, and emulsion formation tendency. The 2019 sample is somewhat lighter and less viscous than older samples. The environmental behavior parameters of evaporation, emulsification, and dispersibility were predicted in Environment Canada's analyses. The results show the 2019 ANS is a medium viscosity oil that does not form emulsions, is dispersible, and evaporates to an extent.

### **Composition Changes Effects on Oil Spill Countermeasures**

The composition changes over time have generally made 2019 ANS oil lighter and less viscous making spilled ANS easier to physically recover and easier to pump. 2019 ANS crude is somewhat more dispersible and less prone to form water-in-oil emulsions.

### **Composition Changes Effects on the Environment**

The composition changes over time have made spilled 2019 ANS oil somewhat more toxic to aquatic organisms. The decreasing viscosity and resin content has made spilled 2019 ANS oil less adhesive to shorelines.

## Technical Data Summary

The essential 2019 ANS crude oil data are:

**Table 1. Physical Properties - 2019**

Test	Test Conditions	2019-11-22-5992.1	2019-11-22-5992.2.1	2019-11-22-5992.3.1	2019-11-22-5992.4.1	
		ANS Fresh (0%)	ANS W1 (10.79%)	ANS W2 (21.73%)	ANS W3 (33.04%)	
Density (g/mL)	0 °C	0.8813 ± 0.0000	0.9099 ± 0.0000	0.9319 ± 0.0000	0.95 ± 0.0000	
	15 °C	0.8700 ± 0.0000	0.8989 ± 0.0000	0.9208 ± 0.0000	0.9414 ± 0.0000	
Viscosity (mPas)	0 °C	Shear (s <sup>-1</sup> ) 10		1149 ± 19	11880 ± 147	
		Shear (s <sup>-1</sup> ) 100		859 ± 3	6008 ± 0.0000	
		Shear (s <sup>-1</sup> ) 1000	25.0 ± 0.7	101 ± 0.4	527 ± 2	23.6 ± 0.9
	15 °C	Shear (s <sup>-1</sup> ) 1000	12.7 ± 0.2	37.5 ± 0.1	153 ± 1.0	909 ± 4
Water Content (% w/w)		0.2 ± 0.02	<0.1	<0.1	<0.1	
Sulfur (% w/w)		1.0 ± 0.0	1.1 ± 0.0	1.2 ± 0.0	1.4 ± 0.0	
Pour Point (°C)		-51 °C ± 1.5	-60 °C ± 0.0	-45 °C ± 1.5	-12 °C ± 0.0	
Flash Point (°C)		<-19 °C	25 °C ± 0.0	82 °C ± 1.0	131 °C ± 1.0	
Vapor Pressure (kPa)		45.8 ± 0.2				
Evaporation equation (at 15 °C)	A for %Ev = A + B ln t	-12.7684				
	B for %Ev = A + B ln t	6.3003				
Chemical dispersibility (15 °C)	Swirling Flask	43 ± 4	25 ± 2	12 ± 2	9 ± 4	
	Baffled Flask	95 ± 2	93 ± 2	81 ± 3	86 ± 5	

The 2019 data show that this sample is similar in density to that of the previous sample analyzed in 2015. Table 2 illustrates how key properties have changed over time.

**Table 2 Brief History of Physical Property Values**

Property	Value in 2019	Value in 2015	(all at 15°C)	
			Value in 2012	Value in 2009
Density	0.8700	0.8639	0.8649	0.8626
Viscosity	12.7	9.9	14.2	13.1
Flash point	<-19°C	NM		<-5
Sulfur content (%)	1.0 ± 0.0	0.9	0.93	2.6
Saturates (% w/w)	56	57.8		65.3
Aromatics (% w/w)	31	31.9		16.5
Resins (% w/w)	9 ± 0.4	6.5		14.7
Asphaltenes (% w/w)	4 ± 0.1	3.8		3.5

The essential environmental facts of the 2019 ANS sample are summarized in Table 3.

<b>Table 3 Environmental Properties of the New ANS</b>	
<b>Evaporation</b>	$\%Ev = (2.7 + .045T)\ln(t)$ T is temperature in Celsius t is the time in minutes
<b>Emulsification</b>	Does not form any type until heavily weathered Heavily weathered = entrained
<b>Dispersibility</b>	43 ± 4% (Based on Swirling Flask test)

The origin and use of these predictions are illustrated in the text of the full report.

## List of Acronyms and Definitions

ANS	Alaska North Slope - This usually refers to the crude oil mixture at the end of the pipeline
API	American Petroleum Institute
BTEX	Benzene, toluene, ethyl-benzene, and xylenes
ESTS	Emergencies Science and Technology Section – part of Environment and Climate Change Canada
EPA	U.S. Environmental Protection Agency
G/cm <sup>3</sup>	Grams per cubic centimetre
GC	Gas chromatograph - This is a chemical analytical technique
PAHs	Polycyclic aromatic hydrocarbons
PH	Phytane – an important marker found in most crude oils
PR	Pristane – an important marker, usually used in combination with Phytane to estimate biodegradation
PWSRCAC	Prince William Sound Regional Citizens' Advisory Council
SARA	Saturates, aromatics, resins, and asphaltenes
TAH	Total aromatic hydrocarbons
TPH	Total petroleum hydrocarbons
TSH	Total saturate hydrocarbons
VOCs	Volatile organic compounds

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## **1 Introduction**

### **1.1 Background**

The overall objective of this paper is to provide properties and environmental prediction information on the 2019 sample of ANS crude oil. Additional objectives include:

- Describing how the pertinent chemical and physical properties of this 2019 ANS sample affect mechanical and non-mechanical response methods;
- Describing how those properties affect the fate and transport of oil spilled in Prince William Sound; and
- Identifying how the chemical properties of this sample have changed over time.

### **1.2 Oil Properties and North Slope Crude**

It is important to recognize the nature of a crude oil that stems from the inputs into the pipeline and the changing blends that occur over time. A crude oil sample drawn at one point in time from a pipeline may be completely different than a sample drawn at a later time.

The Alaska crude is an example of this principle. The trans-Alaska pipeline begins at Pump Station 1 (International Petroleum Encyclopedia, 2015). At this point, it is a mixture of crude oils in varying proportions from several fields. The characteristics of the fields vary and thus, as they are blended into Pump Station 1 at the head of the trans-Alaska pipeline, the starting crude varies as well. At the time of writing of this report, the Prudhoe Bay field is injecting less oil into the pipeline than prior to 2010. Some oil is withdrawn from the pipeline for the PetroStar refinery in Valdez where residual oils are re-injected into the pipeline. The sequence of this changes the composition of the oil when it is stored in Valdez.

In 2019, a new sample was drawn and the properties were measured and reported by Environment Canada (2022). Table 1 gives these properties (ESTS, 2022). Comparison shows that the 2019 sample is about the same as the 2013-2015 samples in many respects (see Table 2).

### **1.3 A Summary of Oil Composition and Behavior**

Crude oils are mixtures of hydrocarbon compounds ranging from smaller, volatile compounds to very large, non-volatile compounds (Fingas, 2015). This mixture of compounds varies according to the geological formation of the area in



which the oil is found and strongly influences the properties of the oil. Petroleum products such as gasoline or diesel fuel are mixtures of fewer compounds and thus their properties are more specific and less variable. Hydrocarbon compounds are composed of hydrogen and carbon, which are therefore the main elements in oils. Oils also contain varying amounts of sulphur, nitrogen, oxygen, and sometimes mineral salts, as well as trace metals such as nickel, vanadium, and chromium.

The most common smaller and more volatile compounds found in oil are often referred to as BTEX, or benzene, toluene, ethyl-benzene, and xylenes.

Polyaromatic hydrocarbons, or PAHs, are compounds consisting of at least two benzene rings.

Polar compounds are those that have a significant molecular charge as a result of bonding with compounds such as sulphur, nitrogen, or oxygen. The 'polarity' or charge that the molecule carries results in behavior that is different from that of unpolarized compounds, under some circumstances. In the petroleum industry, the smallest polar compounds are called 'resins,' which are largely responsible for oil adhesion. The larger polar compounds are called 'asphaltenes' because they often make up the largest percentage of the asphalt commonly used for road construction. Asphaltenes often have very large molecules and, if in abundance in an oil, they have a significant effect on oil behavior such as emulsification.

### **1.3.1 Oil Properties**

The properties of oil discussed here are viscosity, density, specific gravity, flash point, pour point, distillation fractions, and interfacial tension.

Viscosity is the resistance to flow in a liquid (Fingas, 2015). The lower the viscosity, the more readily the liquid flows. For example, water has a low viscosity and flows readily, whereas honey, with a high viscosity, flows poorly. The viscosity of the oil is largely determined by the amount of lighter and heavier fractions that it contains. The greater the percentage of light components such as saturates and the lesser the amount of asphaltenes, the lower the viscosity.

As with other physical properties, viscosity is affected by temperature, with a lower temperature giving a higher viscosity. For most oils, the viscosity varies as the logarithm of the temperature, which is a very significant variation. Oils that flow readily at high temperatures can become a slow-moving, viscous mass at low temperatures. In terms of oil spill cleanup, viscosity can affect the oil's behavior.

Viscous oils do not spread rapidly, do not penetrate soil as readily, and affect the ability of pumps and skimmers to handle the oil.

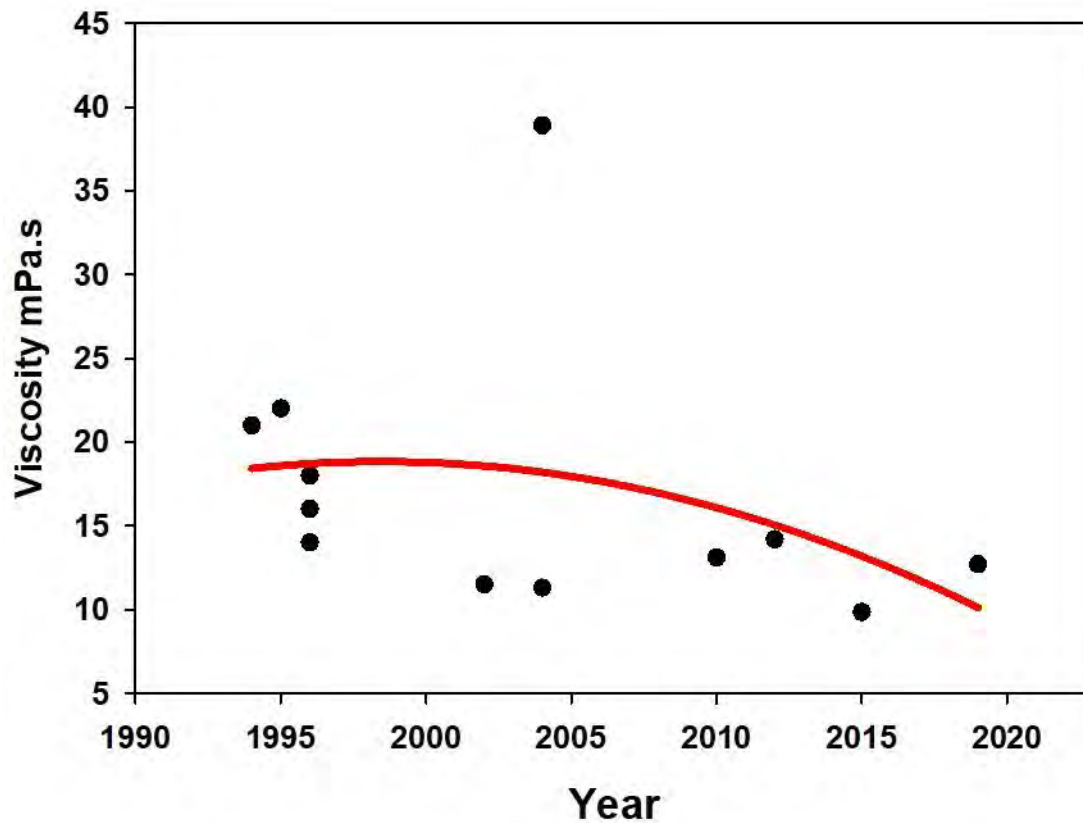
The 2019 ANS oil can be compared to the old ANS oils and from Figure 1 it can be seen that the 2019 oil is about the same as the last two samples. It can be noted in Figure 1 that the sample in 2003 showed an anomalous high reading. This was probably due to chance sampling.

A comparison of viscosities appears in Table 4 below. This shows that ANS is now a typical medium crude oil in terms of viscosity.

**Table 4 Typical Viscosity Comparison**  
(data in mPa.s or cP)

<b>Comparison oils <sup>a</sup></b>	<b>Viscosity before spilling</b>	<b>Viscosity after Some Weathering (mass % lost in weathering)</b>	<b>Viscosity after More Weathering (mass % lost in weathering)</b>
Light crude	1	2 (30%)	5 (60%)
Medium crude	8	16 (20%)	110 (37%)
2019 ANS	12.7	153 (22%)	900 (33%)
Heavy crude	820	8700 (10%)	475,000 (19%)
Dilbit	270	6300 (15%)	260,000 (30%)
Bitumen	260,000	300,000 (1%)	400,000 (2%)

<sup>a</sup> Light crude is represented by Scotia Light, Medium by West Texas Intermediate, Heavy by Sockeye Sour, and Dilbit by Cold Lake Blend



**Figure 1.** History of the viscosity measurements.

Density is the mass (weight) of a given volume of oil and is typically expressed in grams per cubic centimetre ( $\text{g/cm}^3$ ). It is the property used by the petroleum industry to define light or heavy crude oils. Density is also important as it indicates whether a particular oil will float or sink in water. As the density of water is  $1.0 \text{ g/cm}^3$  at  $15^\circ\text{C}$  and the density of most oils ranges from  $0.8$  to  $0.99 \text{ g/cm}^3$ , most oils will float on water. As the density of seawater is  $1.03 \text{ g/cm}^3$ , even heavier oils will usually float on it. As the light fractions evaporate with time, the density of oil increases.

Occasionally, when the density of an oil becomes greater than the density of freshwater or seawater, the oil will sink. Bulk sinking is rare, however, and happens with only a few oils, usually residual oils such as Bunker C. Significant amounts of oil have sunk, by density alone, in only about 25 incidents out of thousands.

Again, to compare the 2019 sample density to the old data, one can examine Figure 2. This shows that the 2019 sample is quite different from the very old samples, but similar to the last two samples. As can be seen from Figure 2, the ANS is progressing more and more to that of a lighter oil. The progression has been constant over the past 17 years. In the past few years, there is some variance in density which is considered to be minor. Sample density is indicative of composition and the lighter or less dense that an oil is, the easier it is to clean up.

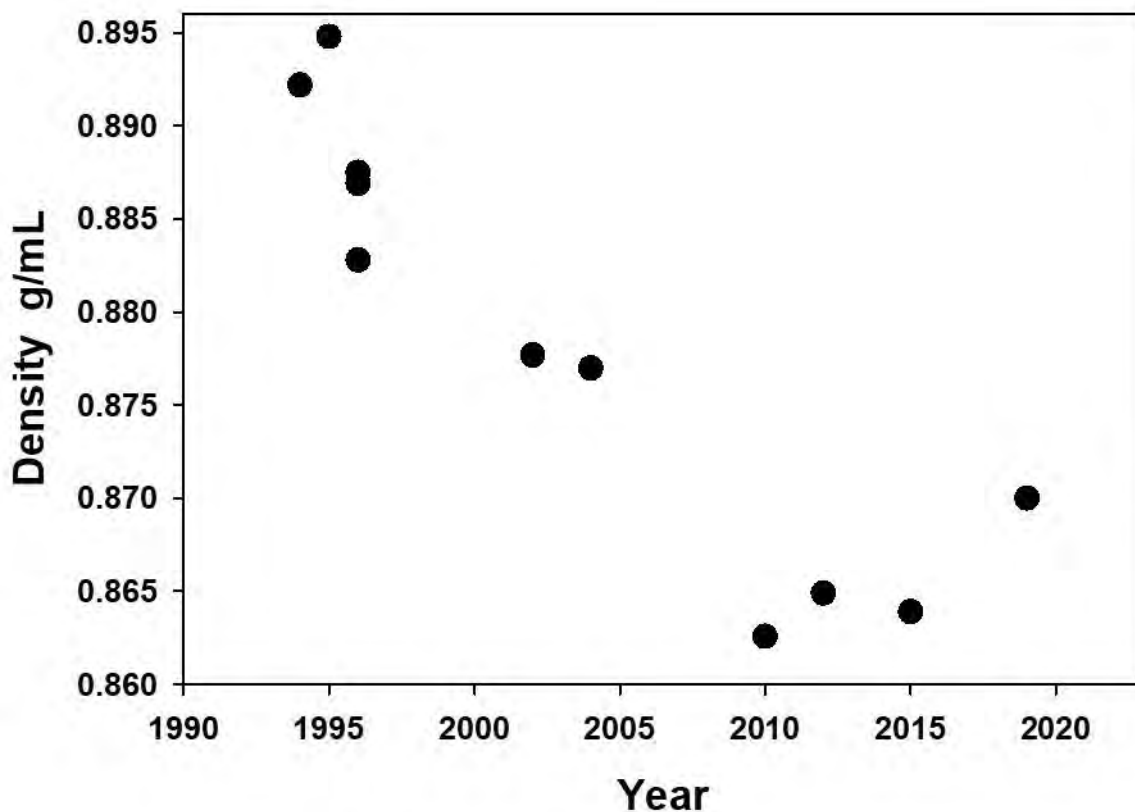


Figure 2. History of the density measurements.

Table 5 shows the comparison of density to other oils. This shows again that the density is that of a typical medium crude oil.

**Table 5 Typical Density Comparison**

(data in g/mL at 15°C, freshwater has a density of 1.00, seawater of 1.03)

Comparison oils <sup>a</sup>	Density before spilling	Density after Some Weathering (mass % lost in weathering)	Density after More Weathering (mass % lost in weathering)
Light crude	0.77	0.8 (30%)	0.84 (60%)
Medium crude	0.85	0.87 (16%)	0.90 (32%)
2019 ANS crude	0.86	0.92 (25%)	0.94 (37%)
Heavy crude	0.94	0.97 (10%)	0.98 (19%)
Dilbit	0.919	.983 (15%)	1.002 (30%)
Bitumen	0.998	1.002(1%)	1.004(2%)

<sup>a</sup> Light crude is represented by Scotia Light, Medium by West Texas Intermediate, Heavy by Sockeye Sour, and Dilbit by Cold Lake Blend

Another measure of density is specific gravity, which is an oil's relative density compared to that of water at 15°C. It is the same value as density at the same temperature. Another gravity scale is that of the American Petroleum Institute (API). The API gravity is based on the density of pure water which has an arbitrarily assigned API gravity value of 10° (10 degrees). Oils with progressively lower specific gravities have higher API gravities.

The following is the formula for calculating API gravity:  $API\ gravity = [141.5 \div (\text{density at } 15.5^\circ C)] - 131.5$ . Oils with high densities have low API gravities and vice versa. In the United States, the price of a specific oil may be based on its API gravity as well as other properties of the oil.

The flash point of an oil is the temperature at which the liquid gives off sufficient vapours to ignite upon exposure to an open flame. A liquid is considered to be flammable if its flash point is less than 60°C. There is a broad range of flash points for oils and petroleum products, many of which are considered flammable, especially when fresh. Gasoline, which is flammable under all ambient conditions, poses a serious hazard when spilled. Many fresh crude oils have an abundance of volatile components and may be flammable for as long as one day until the more volatile components have evaporated. On the other hand, Bunker C and heavy crude oils are not generally flammable when spilled. Flash point generally correlates with many of the other data such as density, distillation data, etc. The flash point of the fresh oil was not measured – probably because it was high and

variable. The flash point of the weathered fractions of ANS show that it is not flammable after weathering for about ½ day. There is no historical comparison point for this value as it was not measured in the past. A comparison to other oils is shown in Table 6 below.

**Table 6 Typical Flash Point Comparison (data in °C)  
(data in °C)**

<b>Comparison oils<sup>a</sup></b>	<b>Flash Point before spilling</b>	<b>Flash Point after Some Weathering (mass % lost in weathering)</b>	<b>Flash Point after More Weathering (mass % lost in weathering)</b>
Light crude	<-30	35 (30%)	95 (60%)
Medium crude	-10	50 (15%)	> 110 (32%)
ANS	-19	82 (22%)	131 (33%)
Heavy crude	-3	67 (10%)	>95 (19%)
Dilbit	< -35	>60 (15%)	>70 (30%)
Bitumen	> 100	> 100 (1%)	>110 (2%)

<sup>a</sup> Light crude is represented by Scotia Light, Medium by West Texas Intermediate, Heavy by Sockeye Sour, and Dilbit by Cold Lake Blend

Figure 3 compares the change in the fraction of oil distilled at 180°C, the point used to develop evaporation equations. This again illustrates the change in ANS over the years. This shows that the recent sample appears to be lower in boiling point, however related data such as evaporation equations show that the sample is fairly consistent with previous years' samples.

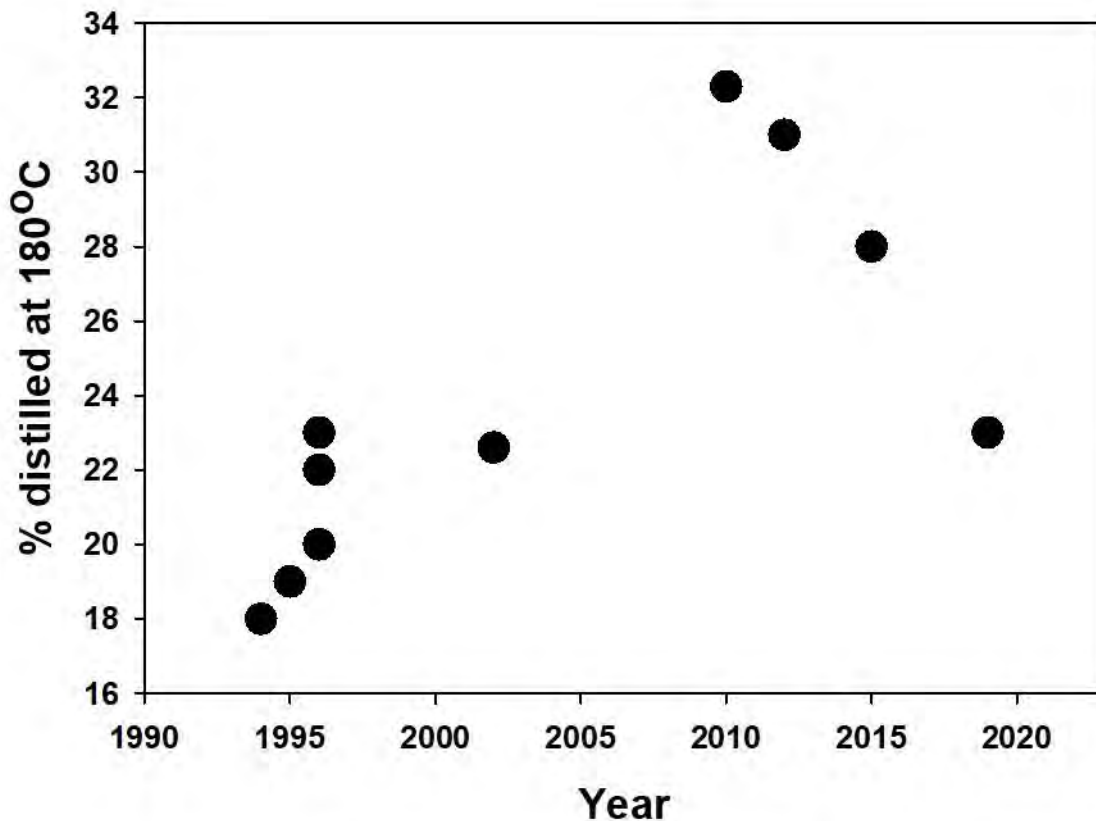
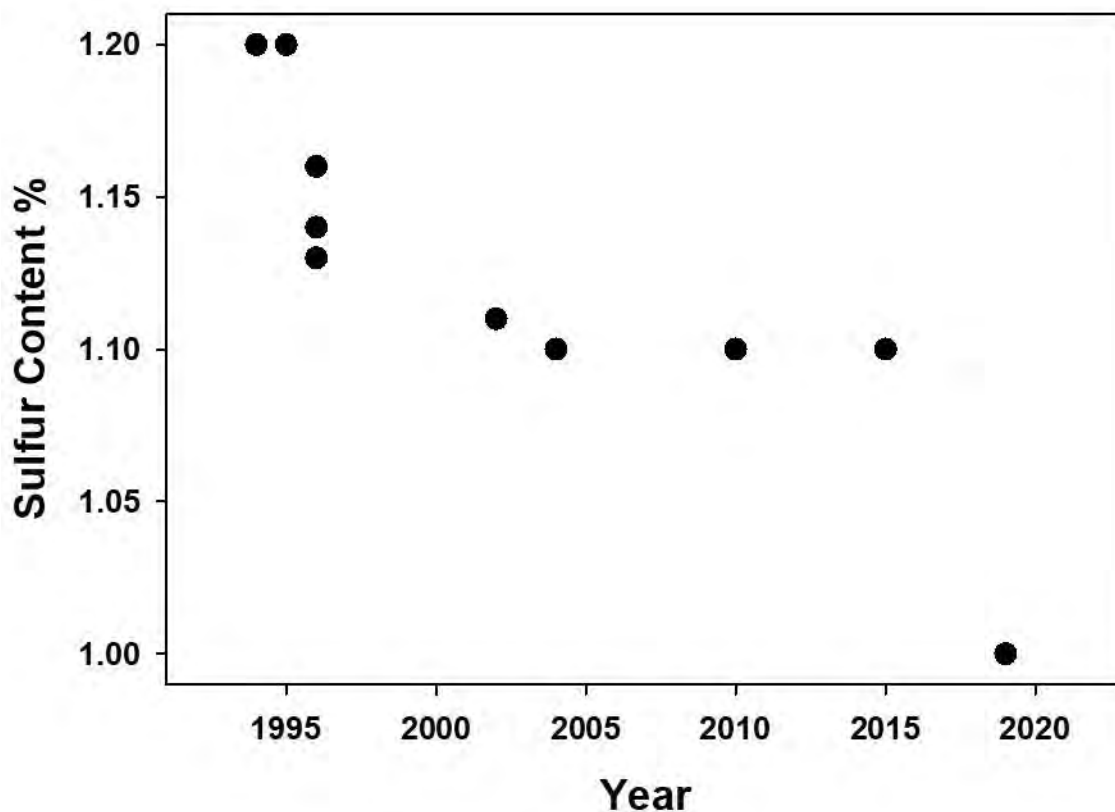


Figure 3. History of the percent distilled at 180°C.

The sulfur content of oil is sometimes included with properties, even though it is a chemical composition item. This is because sulfur content is an important consideration when considering emissions such as automotive emissions as well as considering the type of refining processes that are required for a particular type of oil. Sulfur content is also indicative of the number of polar compounds in the oil. Figure 4 shows the history of fresh ANS sulfur content over the past 17 years. This shows that the sulfur content is decreasing somewhat.

The oil/water interfacial tension, sometimes called surface tension, is the force of attraction or repulsion between the surface molecules of oil and water. Together with viscosity, surface tension is an indication of how rapidly and to what extent an oil will spread on water. The lower the interfacial tension with water, the greater the extent of spreading. In actual practice, the interfacial tension must be considered along with the viscosity because it has been found that interfacial

tension alone does not account for spreading behavior. A comparison of interfacial tension shows that there has been no significant change in the past few years, and it was not measured in earlier years.



**Figure 4.** The history of the sulfur content of fresh ANS oil.

The vapour pressure of an oil is a measure of how the oil partitions between the liquid and gas phases, or how much vapour is in the space above a given amount of liquid oil at a fixed temperature. Because oils are a mixture of many compounds, the vapour pressure changes as the oil weathers. Vapour pressure is difficult to measure and is not frequently used to assess oil spills. Vapour pressure was measured for ANS for the first time in the last round, so there is no comparison point to old measurements. This may set a baseline however, if future measurements are carried out.



The ANS adhesion was measured for the first time in 2015 but not in 2019. The adhesion test was developed to provide a standard method for measuring 'stickiness,' which does vary among oils. This test can give an indication of the interaction of oil with shorelines as well as the ability to recover oil with adsorbent skimmers. High values indicate oil that may be hard to cleanup from shorelines, and low values oils that will not adhere to shorelines but are difficult to cleanup with sorbent-surface skimmers. Table 7 shows a comparison of the adhesion of the 2015 ANS sample compared to some other oils. ANS fits right in as a medium oil and has the expected adhesion properties.

**Table 7      Typical Adhesion Comparison  
(2019)  
(data in g/m<sup>2</sup>)**

<b>Comparison oils<sup>a</sup></b>	<b>Adhesion before spilling</b>	<b>Adhesion after Some Weathering (mass % lost in weathering)</b>	<b>Adhesion after More Weathering (mass % lost in weathering)</b>
Light crude	0	2.5 (30%)	9 (60%)
Medium crude	12	22 (15%)	33 (32%)
ANS 2015 crude	18	34 (25%)	56 (37%)
Heavy crude	75	100 (10%)	600 (19%)
Dilbit	98	146 (6%)	1580 (20%)**
Bitumen	575		

<sup>a</sup> Light crude is represented by Scotia Light, Medium by West Texas Intermediate, Heavy by Sockeye Sour, and Dilbit by Cold Lake Blend

\*\* highly weathered

### 1.3.2 Behavior of Oil

Oil spilled on water undergoes a series of changes in physical and chemical properties which in combination are termed 'weathering' (Fingas, 2015). Weathering processes occur at very different rates, but begin immediately after oil is spilled into the environment. Weathering rates are not consistent throughout the duration of an oil spill and are usually highest immediately after the spill.

Evaporation is usually the most important weathering process. It has the greatest effect on the amount of oil remaining on water or land after a spill. Over a period of several days, a light fuel such as gasoline evaporates completely at temperatures above freezing, whereas only a small percentage of a heavier Bunker C oil evaporates. The rate at which an oil evaporates depends primarily on the oil's composition. The more volatile components an oil or fuel contains, the greater the extent and rate of its evaporation. Many components of heavier oils will not evaporate at all, even over long periods of time and at high temperatures.

Oil and petroleum products evaporate in a slightly different manner than water and the process is much less dependent on wind speed and surface area than on temperature. Oil evaporation can be considerably slowed down by the formation of a 'crust' or 'skin' on top of the oil. This happens primarily on land where the oil layer does not mix with water. The skin or crust is formed when the smaller compounds in the oil are removed, leaving the larger compounds, such as waxes and resins, at the surface. These components seal off the remainder of the oil and prevent evaporation. Stranded oil from old spills has been re-examined over many years and it has been found that, when this crust has formed, there is no significant evaporation in the oil underneath. If this crust has not formed, the same oil could be weathered to the hardness of wood.

The rate of evaporation is very rapid immediately after a spill and then slows considerably. About 80% of evaporation occurs in the first few days after a spill. The evaporation of most oils follows a logarithmic curve with time. Some oils such as diesel fuel, however, evaporate at the square root of time, at least for the first few days. This means that the evaporation rate slows very rapidly in both cases. The properties of an oil can change significantly with the extent of evaporation. If about 40% (by weight) of an oil evaporates, its viscosity could increase by as much as a thousand-fold. Its density could rise by as much as 10% and its flash point by as much as 400%. The extent of evaporation can be the most important factor in determining properties of an oil at a given time after the spill and in changing the behavior of the oil.

Emulsification is the process by which one liquid is dispersed into another one in the form of small droplets. Water droplets can remain in an oil layer in a stable form and the resulting material is completely different. These water-in-oil emulsions are sometimes called 'mousse' or 'chocolate mousse' as they resemble this dessert. In fact, both the tastier version of chocolate mousse and butter are common examples of water-in-oil emulsions.

The mechanism of emulsion formation is not yet fully understood, but it probably starts with sea energy forcing the entry of small water droplets, about 10 to 25  $\mu\text{m}$  (or 0.010 to 0.025 mm) in size, into the oil. If the oil is only slightly viscous, these small droplets will not leave the oil quickly. On the other hand, if the oil is too viscous, droplets will not enter the oil to any significant extent. Once in the oil, the droplets slowly gravitate to the bottom of the oil layer. Any asphaltenes and resins in the oil will interact with the water droplets to stabilize them. Depending on the quantity of asphaltenes and resins, an emulsion may be formed. The conditions required for emulsions of any stability to form may only be reached after a period of evaporation. Evaporation lowers the amount of low-molecular weight compounds in the oil and increases the viscosity to the critical value.

Water can be present in oil in four ways. First, some oils contain about 1% water as soluble water. This water does not significantly change the physical or chemical properties of the oil. The second way is called 'entrainment,' whereby water droplets are simply held in the oil by its viscosity to form an unstable emulsion. These are formed when water droplets are incorporated into oil by the sea's wave action, and there are not enough asphaltenes and resins in the oil, or if there is a high amount of aromatics in the oil which stabilizes the asphaltenes and resins preventing them from acting on the water droplets. Unstable emulsions break down into water and oil within minutes or a few hours, at most, once the sea energy diminishes. The properties and appearance of the unstable emulsion are almost the same as those of the starting oil, although the water droplets may be large enough to be seen with the naked eye.

Meso-stable emulsions represent the third way water can be present in oil. These are formed when the small droplets of water are stabilized to a certain extent by a combination of the viscosity of the oil and the interfacial action of asphaltenes and resins. For this to happen, the asphaltene or resin content of the oil must be at least 3% by weight. The viscosity of meso-stable emulsions is 20 to 80 times higher than that of the starting oil. These emulsions generally break down into oil and water or sometimes into water, oil, and stable emulsion within a few

days. Semi- or meso-stable emulsions are viscous liquids that are reddish-brown in colour.

The fourth way that water exists in oil is in the form of stable emulsions. These form in a way similar to meso-stable emulsions except that the oil must contain at least 4 to 8% asphaltenes. The viscosity of stable emulsions is 800 to 1000 times higher than that of the starting oil and the emulsion will remain stable for weeks and even months after formation. Stable emulsions are reddish-brown in colour and appear to be nearly solid. Because of their high viscosity and near solidity, these emulsions do not spread and tend to remain in lumps or mats on the sea or shore.

The formation of emulsions is an important event in an oil spill. First, and most importantly, it substantially increases the actual volume of the spill. Emulsions of all types contain about 60 to 80% water and thus when emulsions are formed the volume of the oil spill more than triples. Even more significantly, the viscosity of the oil increases by as much as 1000 times, depending on the type of emulsion formed. For example, a highly viscous oil such as a heavy fuel oil can triple in volume and become almost solid through the process of emulsification.

These increases in volume and viscosity make cleanup operations more difficult. Emulsified oil is difficult or impossible to disperse, to recover with skimmers, or to burn. Emulsions can be broken down with special chemicals in order to recover the oil with skimmers or to burn it. It is thought that emulsions break down into oil and water by further weathering, oxidation, and freeze-thaw action. Meso- or semi-stable emulsions are relatively easy to break down, whereas stable emulsions may take months or years to break down naturally.

Emulsion formation also changes the fate of the oil (Fingas and Fieldhouse, 2009, 2011). It has been noted that when oil forms stable or meso-stable emulsions, evaporation slows considerably. Biodegradation also appears to slow down. The dissolution of soluble components from oil may also cease once emulsification has occurred.

## **2. Summary of ANS Behavior**

An important facet of understanding the oil behavior is to use actual data on the behavior of the oil. The Environment Canada report lists several important behavior data (ESTS, 2022). These results will be reported here.

## 2.1 ANS Evaporation

Oil evaporation was measured by Environment Canada using pan evaporation. This resulted in an equation:

$$\%Ev = (2.7 + .045T)\ln(t) \quad (1)$$

Where %Ev is the percent evaporated at T °C  
and t is the time in minutes.

This is an empirical equation derived from controlled experiments. Figure 5 shows the predicted evaporation at different temperatures. This shows that the 2019 ANS would evaporate significantly at normal ambient temperatures within a few days.

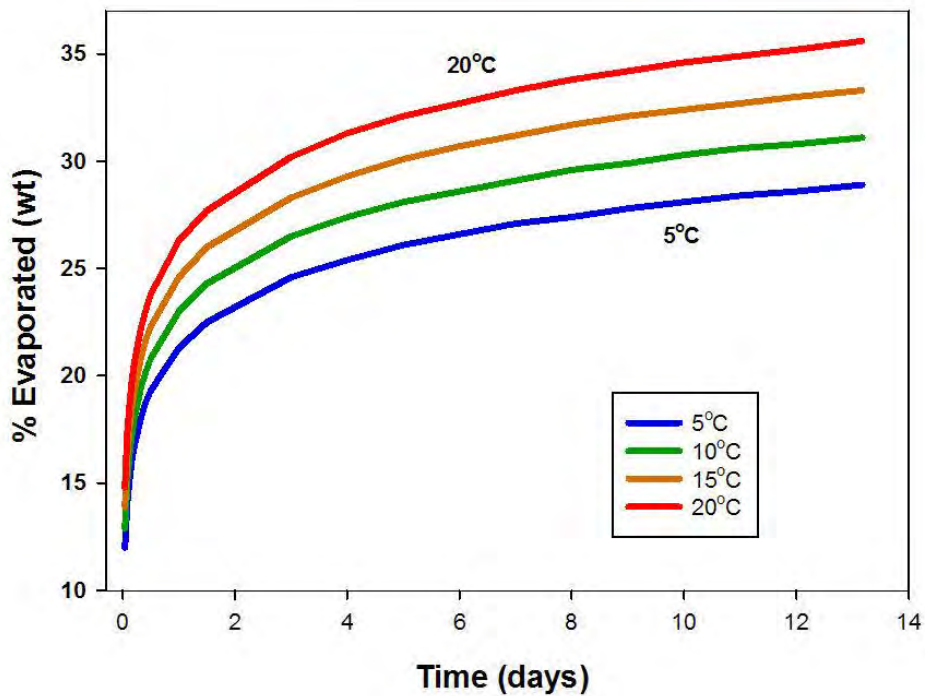


Figure 5. The evaporation of the 2019 ANS Sample

## 2.2 Emulsification

Water-in-oil emulsions sometimes form after oil products are spilled. These emulsions, often called “chocolate mousse” or “mousse” by oil spill workers, can make the cleanup of oil spills very difficult. When water-in-oil emulsions form, the physical properties of oil changes dramatically. As an example, stable emulsions contain from 60 to 80% water, thus expanding the spilled material from two to five times the original volume. Most importantly, the viscosity of the oil typically changes from a few hundred mPa·s to about 100,000 mPa·s, an increase by a factor of 500–1000. A liquid product is changed into a heavy, semisolid material. These emulsions are difficult to recover with ordinary spill recovery equipment. A test of the emulsification of this 2019 sample of ANS showed that it does not produce any form of stable emulsion. This is good news, as it shows that the oil would be easy to recover even after moderate weathering. However, highly weathered oil can retain entrained water. Table 8 shows the results.

<b>Table 8 Emulsion Formation, Alaska North Slope 2019 (ESTS, 2022)</b>					
<b>Emulsion</b>	<b>Units</b>	2019-11-22-	2019-11-22-	2019-11-22-	2019-11-22-
		<b>ANS Fresh (0%)</b>	<b>ANS W1 (10.79%)</b>	<b>ANS W2 (21.73%)</b>	<b>ANS W3 (33.04%)</b>
<b>Visual stability</b>		Distinct oil water layers	Distinct oil water layers	Distinct oil water layers	Oil water emulsion
<b>15 °C (1st day)</b>					
<b>Complex modulus</b>	Pa	N/A	N/A	N/A	15.4 ± 4.9
<b>15 °C (1st day)</b>					
<b>Storage Modulus</b>	Pa	N/A	N/A	N/A	1.49 ± 2.09
<b>15 °C (1st day)</b>					
<b>Tan Delta (V/E)</b>		N/A	N/A	N/A	15.6 ± 11.7
<b>15 °C (1st day)</b>					
<b>Complex dynamic viscosity (1st day)</b>	mPa.s	N/A	N/A	N/A	2448 ± 778
<b>Water Content (1st day)</b>	% w/w	N/A	N/A	N/A	18.9 ± 0.6
<b>Visual stability</b>		Unstable	Unstable	Unstable	<b>Entrained</b>
<b>15 °C (8th day)</b>					
<b>Complex modulus</b>	Pa	N/A	N/A	N/A	7.09 ± 0.96
<b>15 °C (8th day)</b>					
<b>Storage Modulus</b>	Pa	N/A	N/A	N/A	0.36 ± 0.23
<b>15 °C (8th day)</b>					
<b>Tan Delta (V/E)</b>		N/A	N/A	N/A	29.6 ± 21.9
<b>15 °C (8th day)</b>					
<b>Complex dynamic viscosity (8th day)</b>	mPa.s	N/A	N/A	N/A	1129 ± 153
<b>Water Content (8th day)</b>	% w/w	N/A	N/A	N/A	5.7 ± 0.4

The parameters in Table 8 are standard characterizations of heavy oils or emulsions, explanations can be found in rheological introductions (Malvern, 2016). The new sample of ANS doesn't form stable emulsions, however highly weathered samples can retain water by viscosity forces.

### 3. Chemistry of ANS

Crude oils are complex mixtures of hydrocarbons and hydrocarbons combined with other elements ranging from smaller, volatile compounds to very large, nonvolatile compounds. The mixture of compounds varies with the geological formation of the area in which the crude oil is found. Crude oils are often similar in a given region and when drawn from a similar reservoir. Petroleum products such as gasoline and diesel fuel are mixtures of fewer compounds and are refined to specific standards. Thus, their properties are more specific and less variable. Crude oil contains many compounds of different sizes and different classes. In fact, there are so many that as time goes by more and more compounds are identified in oil. Currently, analysts have preliminarily identified up to 100,000 compounds in an oil. In the future, this number will no doubt rise significantly.

The gas chromatographic, or GC, characteristics of 2019 ANS oil are shown in Table 9.

Category	Units	Oil (% weathered)			
		ANS Fresh (0%)	ANS W1 (10.79%)	ANS W2 (21.73%)	ANS W3 (33.04%)
TPH	mg/g oil	663	681	657	663
TSH	mg/g oil	428	465	422	410
TAH	mg/g oil	235	215	235	252
Resolved peaks (F3)	mg/g oil	169	141	153	105
TSH/TPH (%)	(%)	64.6	68.4	64.2	61.9
TAH/TPH (%)	(%)	35.4	31.6	35.8	38.1
Resolved Peaks/TPH (%)	(%)	27.8	20	21.9	16
TPH fractions (%)					
TPH F1 (<n-C10)	(%)	11.6	10.8	3.01	0
TPH F2 (>n-C10-n-C16)	(%)	25.3	28	27.8	16.8
TPH F3 (>n-C16-n-C34)	(%)	48.8	48.2	53.8	64.9
TPH F4 (>n-C34)	(%)	14.3	13	15.4	18.3

Table 9 shows some interesting data. The TPH is the total petroleum hydrocarbons and this represents the total amount that the GC can detect out of the sample injected. For the fresh oil, Table 9 shows that this value is 663 mg (out of 1000). This amounts to 66%. The remainder of the oil did not make it through the chromatographic column. This is very important in considering an oil as any measurements made of it are only analyzing 66%. For example, if studying



biodegradation, one can be fooled into thinking that the remainder is degraded, whereas it is not analyzed. Similarly, the TSH is the total saturate hydrocarbons which is the fraction of the TPH that is detected as saturate compounds. The TAH is the total aromatic hydrocarbons. This is the fraction of the oil that is detected as aromatic hydrocarbons. The 'resolved peaks' is the fraction of the oil detected in the peaks that have been resolved or separated by the GC. The remainder of the TPH is in unresolved peaks or in 'humps' in the chromatogram. The TSH/TPH and TAH/TPH ratios are indices of the saturate and aromatic components in the oil.

The saturates, aromatics, resins and asphaltene (SARA) composition of oil is a more general analytical method which defines oils by precipitation and then weight. Newer methods now employ thin layer chromatography, the values from both methods vary somewhat. This method is still useful however, and it provides useful data both to the refiner and to the environmental scientist. Saturates are hydrocarbon compounds with the maximum number of hydrogens. Aromatics are hydrocarbon compounds with at least one benzene ring. Resins and asphaltenes are larger compounds containing mostly carbon and hydrogen, but containing other elements such as oxygen, sulfur, nitrogen and metals. Table 10 shows the composition of the latest fraction of ANS oil by TPH fraction, this is another bulk classification which relates the chemistry of oil to chromatographic analysis.

<b>Customer sample info.</b>	<b>Units</b>	<b>ANS Fresh (0%)</b>	<b>ANS W1 (10.79%)</b>	<b>ANS W2 (21.73%)</b>	<b>ANS W3 (33.04%)</b>
<b>TPH</b>	<b>mg/g oil</b>	663	681	657	663
<b>TSH</b>	<b>mg/g oil</b>	428	465	422	410
<b>TAH</b>	<b>mg/g oil</b>	235	215	235	252
<b>Resolved peaks (F3)</b>	<b>mg/g oil</b>	169	141	153	105
<b>TSH/TPH (%)</b>	<b>(%)</b>	64.6	68.4	64.2	61.9
<b>TAH/TPH (%)</b>	<b>(%)</b>	35.4	31.6	35.8	38.1
<b>Resolved Peaks/TPH (%)</b>	<b>(%)</b>	27.8	20	21.9	16
<b>TPH fractions (%)</b>					
<b>TPH F1 (&lt;n-C10)</b>	<b>(%)</b>	11.6	10.8	3.01	0
<b>TPH F2 (&gt;n-C10-n-C16)</b>	<b>(%)</b>	25.3	28	27.8	16.8
<b>TPH F3 (&gt;n-C16-n-C34)</b>	<b>(%)</b>	48.8	48.2	53.8	64.9
<b>TPH F4 (&gt;n-C34)</b>	<b>(%)</b>	14.3	13	15.4	18.3

Alkanes, an important part of saturate composition, are hydrocarbons with a chain-like structure and without double bonds or other elements such as sulphur, nitrogen, or oxygen attached. Alkanes, sometimes called paraffins, are typically the most abundant compounds in crude oils as well as in most fuels such as diesel fuel and gasoline. Most crude oils have anywhere between a few percent up to 30% alkanes. Alkanes are typically the target compounds sought by petroleum producers. It should be noted, however, that larger alkanes are also called waxes, and these are sometimes less desirable from a petroleum-producers point of view. Table 11 shows the alkane compounds in the latest fraction of ANS oil. Table 11 shows that the latest sample of oil is typical of medium crude oil and contains a large proportion of refinable material.

Further, the alkanes content shows the spill responder that the oil weathers to a greater extent or lesser extent. Many of the alkanes below about C<sub>20</sub> are lost in the first few days.

PAHs are compounds consisting of at least two benzene rings. PAHs make up between 0 and 60% of the composition of oil. Common PAHs and their substituted counterparts in ANS are shown in Table 12. As these are easily separated, there are extensive data on their presence in oils. These compounds have also been used somewhat as indicators of presence of certain types of oils. The concern with these compounds is that many of them are known to be relatively toxic and some to be carcinogenic. Few of the more toxic compounds are found in ANS oil. These and other PAHs are shown in Table 12. Table 13 shows the biomarkers present in ANS oil. Biomarker compounds are typically used to trace unknown oil spill samples.

<b>Table 11 n-Alkanes, Alaska North Slope 2019 (ESTS, 2022)</b>				
<b>µg/g</b>	<b>ANS Fresh</b>	<b>ANS W1</b>	<b>ANS W2</b>	<b>ANS W3</b>
<b>% Evaporative Mass Loss</b>	<b>0%</b>	<b>-10.79%</b>	<b>-21.73%</b>	<b>-33.04%</b>
n-C9	4,324	4,401	1,610	1
n-C10	4,091	4,348	3,521	2
n-C11	3,667	3,958	3,932	58
n-C12	3,340	3,692	3,807	1,192
n-C13	3,132	3,525	3,676	2,901
TMD	729	853	880	815
n-C14	2,919	3,224	3,388	3,666
n-C15	2,476	2,655	2,853	3,485
n-C16	2,206	2,400	2,565	3,227
TMP	1,111	1,251	1,324	1,548
n-C17	2,366	2,323	2,461	3,127
Pristane	1,106	1,181	1,253	1,621
n-C18	1,860	2,000	2,155	2,780
Phytane	1,030	1,143	1,316	1,661
n-C19	1,720	1,859	1,982	2,590
n-C20	1,614	1,743	1,857	2,439
n-C21	1,523	1,659	1,767	2,278
n-C22	1,459	1,578	1,682	2,195
n-C23	1,387	1,519	1,606	2,020
n-C24	1,271	1,397	1,531	1,927
n-C25	1,087	1,196	1,266	1,743
n-C26	1,104	1,232	1,305	1,655
n-C27	829	1,026	1,009	1,269
n-C28	650	759	739	919
n-C29	518	620	651	809
n-C30	503	516	605	729
n-C31	398	505	529	651
n-C32	310	370	398	479
n-C33	243	322	343	418
n-C34	191	269	282	332
n-C35	184	260	236	322
n-C36	146	209	201	244
n-C37	115	168	166	218
n-C38	98	144	144	176
n-C39	72	88	97	120
n-C40	54	63	68	87
<b>Total n-alkanes</b>	<b>49,834</b>	<b>54,455</b>	<b>53,204</b>	<b>49,705</b>

Table 12 PAHs and alkyl PAHs, Alaska North Slope 2019 (ESTS 2022)					
	Oil	Fresh	ANS W1	ANS W2	ANS W3
Alkylated PAHs	Weathered %		-10.79%	-21.73%	-33.04%
Chrysene	C0-N	504	603	649	65.9
	C1-N	1489	1823	2002	1118
	C2-N	2150	2619	2931	2616
	C3-N	1823	2230	2514	2589
	C4-N	1049	1216	1325	1478
	Sum	7016	8489	9420	7867
Phenanthrene	C0-P	165	193	220	248
	C1-P	533	607	691	776
	C2-P	608	701	808	902
	C3-P	508	552	641	702
	C4-P	250	286	301	350
	Sum	2063	2341	2661	2978
Dibenzothiophene	C0-D	108	127	145	160
	C1-D	316	368	422	469
	C2-D	471	566	653	753
	C3-D	476	495	594	695
	Sum	1371	1557	1814	2077
Fluorene	C0-F	65.5	77.9	89.3	91.3
	C1-F	253	298	362	367
	C2-F	420	455	542	593
	C3-F	404	479	506	590
	Sum	1143	1310	1499	1642
Fluoranthene	C0-FI	2.38	3.01	2.81	3.51
	C1-FI	58.8	64.5	67.4	86.1
	C2-FI	94.8	105	128	137
	C3-FI	118	130	160	165
	C4-FI	82.5	101	109	118
	sum	356	403	468	509
Benzonaphthothiophene	C0-B	37.2	43.4	49.7	54.3
	C1-B	163	164	208	217
	C2-B	219	242	280	309
	C3-B	200	213	249	274
	C4-B	110	123	141	151
	Sum	729	786	928	1006
Chrysene	C0-C	29.7	34.9	39.2	43.7
	C1-C	57.8	61.6	71.7	79
	C2-C	78.4	91.4	101	113
	C3-C	76.6	90.6	104	116
	Sum	242	278	316	352
Total alkylated PAHs		12921	15165	17106	16432
Other Priority PAHs					
Biphenyl (Bph)	Bph	115	138	154	118
Acenaphthylene (Acl)	Acl	11.3	13.5	15.1	14.2
Acenaphthene (Ace)	Ace	12.7	15.2	17.1	16
Anthracene (An)	An	5.91	6.96	7.91	8.42
Fluoranthene (FI)	FI	4.22	4.82	6.1	6.89
Pyrene (Py)	Py	15.2	17.2	19.9	21.7
Benzo(a)anthracene (BaA)	BaA	1.92	1.72	2.35	3.43
Benzo(b)fluoranthene (BbF)	BbF	4.75	5.43	6.37	7
Benzo(k)fluoranthene (BkF)	BkF	0	0	0	0
Benzo(e)pyrene (BeP)	BeP	8.58	9.38	11.76	12.38
Benzo(a)pyrene (BaP)	BaP	1.62	2.02	2.28	2.71
Perylene (Pe)	Pe	6.73	7.33	8.79	10.1
Indeno(1,2,3-cd)pyrene (IP)	IP	0.61	0.66	0.87	0.84
Dibenzo(ah)anthracene (DA)	DA	1.31	1.35	1.56	1.66
Benzo(ghi)perylene (BgP)	BgP	3	3.31	3.63	3.93
Total EPA priority PAHs		193	227	258	227
Total aromatic compounds		13114	15392	17364	16659

<b>Table 13 Biomarker compounds, Alaska North Slope 2019 (ESTS, 2022)</b>				
	<b>ANS Fresh</b>	<b>ANS W1</b>	<b>ANS W2</b>	<b>ANS W3</b>
Sample weathering %	<b>0%</b>	<b>-10.79%</b>	<b>-21.73%</b>	<b>-33.04%</b>
Biomarker compounds	$\mu\text{g/g oil}$	$\mu\text{g/g oil}$	$\mu\text{g/g oil}$	$\mu\text{g/g oil}$
C21 terpane	15.8	18.6	19	24.1
C22 terpane	6.57	7.63	7.75	10.8
C23 terpane	40.4	46.2	47.9	61.1
C24 terpane	26.3	30.1	31	38.8
C27 Ts	14.7	19	21.5	25.5
C27 Tm	29.3	33.8	35.5	44.7
C29ab hopane	68.8	78.7	82.3	103
C30ab hopane	93.9	106	112	143
C31(S) hopane	38.5	43.3	46	58.5
C31(R) hopane	30.7	35.1	36.6	46.1
Gammacerane	9.71	10.4	73	13
C32(S) hopane	30.1	34	35	44.3
C32(R) hopane	21.5	24.8	25.3	32.1
C33(S) hopane	22.2	25.5	26.3	33.2
C33(R) hopane	15.3	17.7	18.5	23.2
C34(S) hopane	17.2	19.8	20.6	25.8
C34(R) hopane	10.7	12.4	13	17.5
C35(S) hopane	17.8	20.7	21.6	27.3
C35(R) hopane	14.1	16.6	17.5	22.2
C27abb steranes	139	158	160	198
C28abb steranes	117	132	139	171
C29abb steranes	150	170	176	228
Total	930	1061	1165	1391
<b>Diagnostic Ratios</b>				
C23/C24	1.53	1.54	1.55	1.57
C23/C30	0.43	0.43	0.43	0.43
C24/C30	0.28	0.28	0.28	0.27
C29/C30	0.73	0.74	0.73	0.72
C31(S)/C31(R)	1.25	1.23	1.26	1.27
C32(S)/C32(R)	1.4	1.37	1.38	1.38
Ts/Tm	0.5	0.56	0.61	0.57
C27abb / C29abb	0.93	0.93	0.91	0.87
C30/(C31+C32+C33+C34+C35)	0.41	0.41	0.34	0.42

#### 4 Dispersant Effectiveness and Prediction

Environment Canada measured the dispersability using the swirling flask test. Results are shown in Table 14. This shows that 2019 ANS is relatively dispersible until it is highly weathered. This is considerably higher since the 1990s when it was measured at around 20% by the same method. This means the 2019 ANS oil is more dispersible than previous ANS crude samples.

	<b>ANS Fresh (0%)</b>	<b>ANS W1 (10.79%)</b>	<b>ANS W2 (21.73%)</b>	<b>ANS W3 (33.04%)</b>
Swirling Flask	43 ± 4	25 ± 2	12 ± 2	9 ± 4
Baffled Flask	95 ± 2	93 ± 2	81 ± 3	86 ± 5

Environment Canada also measured the dispersability using the baffled flask, results are also shown in Table 14.

Oil properties can be correlated with dispersant effectiveness to estimate the amount of oil dispersion. Such correlation could be used to indicate which oil properties, such as asphaltene content, might inhibit or facilitate oil dispersion.

#### 5 Summary

The most important tool in oil spill planning and response is an understanding of oil spill behavior, whether derived directly or through accurate modeling and prediction. Decidedly, the most important data points are for oil spill emulsification, evaporation, chemical dispersibility, and those (such as adhesion and distillation) that might be used to predict other countermeasures such as recovery and burning. This paper showed that the 2019 ANS data from Environment Canada could be used to predict its behavior.

The 2019 emulsion formation predictions show that as a fresh oil, it will not produce a water-in-oil emulsion and that when highly weathered would still not produce an emulsion. This is quite different from older samples (pre-2001) which formed emulsions once weathered.

The dispersibility of the oil is 43% based on the standard swirling flask test. This implies the oil is dispersible until weathered over about 1 day.

The oil weathers to about 37% within the standard weathering period, which indicates that it is classified as a medium oil. Considering spill countermeasures, this percentage indicates that the oil will have low viscosity (<100 mPa.s) for a few

days after spillage. This is important as spill countermeasures effectiveness deteriorates rapidly with increasing viscosity. The 2019 ANS spilled oil can be recovered easier than older ANS oils.

Further, the fate and transport of the 2019 ANS oil would be affected. The lesser viscosity of the 2019 oil means that spills will spread further and faster than they would have in the past. The Exxon Valdez spill was of the older type of crude oil, and would have a different fate than if the oil were of the newer type. The oil would have moved out of Prince William Sound faster and spread into the Gulf of Alaska faster.

The chemistry of the oil shows that it is abundant in alkanes and less so in PAHs and especially the more toxic PAHs (such as the multi-ring 5 or greater). This implies that the aquatic toxicity is moderate.

The 2019 ANS crude properties are consistent with the properties of a medium viscosity crude oil. It should be noted, however that the oil is much lighter than former oils from the Trans Alaska Pipeline System.

## 8. References

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**INFORMATION ITEM**

**Sponsor:** Alan Sorum and the Port Operations and Vessel Traffic System Committee

**Project number and name or topic:** 8300 – Sustainable Shipping Phase I: Regulatory Mandate Review

1. **Description of agenda item:** This project, Phase I: Regulatory Mandate Review, will review and report on the evolution of regulatory requirements affecting the transition of ocean shipping, and tankers in particular, to a sustainable model.

Sierra Fletcher of Nuka Research and Planning Group, LLC., will be briefing the Board on the findings of the study. Based on feedback from the Board and POVTS Committee, the final report will be finished before the end of FY2023.

2. **Why is this item important to PWSRCAC:** The mission of the Council is to promote environmentally safe operation of the Trans Alaska Pipeline System (TAPS) terminal and associated tankers. The global transition to more sustainable shipping technology will depend upon evolving regulation of ship emissions and efficiency, development of new ship design and equipment, and changes in ship operation. All these changes must converge in a fashion that achieves environmental protection, maintains operational safety, and remains commercially viable.

To be able to comment knowledgeably on these changes, their effect on the TAPS tankers, and their impact on Prince William Sound, the POVTS Committee must become, and remain, informed on the regulatory, technical, and commercial aspects of this transition. This project, “Sustainable Shipping Phase I: Regulatory Mandate Review,” will inform POVTS of the evolution of ship emission and efficiency regulation and provide information on the implications of these regulatory developments.

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

<u>Meeting</u>	<u>Date</u>	<u>Action</u>
Board	5/5/22	Adopted the FY2023 budget as presented during the budget workshop on April 27, 2022.
XCOM	9/15/22	Accepted the proposal from Nuka Research and Planning Group, LLC and authorized a contract with them for an amount not to exceed \$35,000.

4. **Summary of policy, issues, support, or opposition:** None.

5. **Committee Recommendation:** No committee recommendation at this time. This is an informational item and the Committee will be reviewing the project final report sometime just after the Board meeting.

Sustainable Shipping Phase I: Regulatory Mandate Review 4-5

6. **Relationship to LRP and Budget:** Phase One of project 8300 – Sustainable Shipping is in the approved FY2023 budget and annual work plan.

**8300 - Sustainable Shipping Phase 1**

As of March 20, 2023

Original Budget	\$35,000.00
Revised Budget	\$35,000.00
Actual & Commitments	\$0.00
<b>Amount Remaining</b>	<b>\$35,000.00</b>

7. **Action Requested of the Board of Directors:** None.
8. **Attachments:** None.

**Briefing for PWSRCAC Board of Directors – May 2023**

**INFORMATION ITEM**

**Sponsor:** Joe Lally and the Legislative Affairs Committee

**Project number and name or topic :** 4400 and 4410 – Federal and State Government Affairs Update

1. **Description of agenda item:** Staff and the Council’s legislative monitors Roy Jones and Gene Therriault will report on developments and prospects in Washington, D.C. and Juneau related to PWSRCAC legislative priorities.
2. **Why is this item important to PWSRCAC:** Many issues of vital importance to the Council and its mission are debated and decided in Juneau and Washington, D.C. The Legislative Affairs Committee works to advance legislative priorities that are consistent with our mission, OPA 90, and our contract with Alyeska Pipeline Service Company.
3. **Previous actions taken by the Board on this item:** LAC was created by the Board in 1991 and has operated ever since.
4. **Summary of policy, issues, support, or opposition:** Not applicable.
5. **Committee Recommendation:** Not applicable.
6. **Relationship to LRP and Budget:** Program 4400 - Federal Governmental Affairs and 2700 - Legislative Affairs Committee are both in the approved FY2023 budget with a combined budget total of \$82,275.
7. **Action Requested of the Board of Directors:** None, item is for information only.
8. **Attachments:** None.

**Briefing for PWSRCAC Board of Directors – May 2023**

**ACTION ITEM**

**Sponsor:** Roy Robertson and the Oil Spill Prevention and Response Committee  
**Project number and name or topic:** 7520 - 2022 Drill Monitoring Annual Report

1. **Description of agenda item:** Staff will provide a briefing on the 2022 Drill Monitoring Annual Report that summarizes the drills and exercises that were attended and evaluated by PWSRCAC staff in 2022. Staff is requesting Board acceptance of this report.
2. **Why is this item important to PWSRCAC:** OPA 90 and the PWSRCAC/Alyeska Contract address the requirements for drill monitoring activities by PWSRCAC, and PWSRCAC monitors drills and exercises whenever possible. These reports have great value in tracking the history of spill preparedness and response by Alyeska/SERVS/PWS Shippers, and are important in tracking lessons learned to avoid the reoccurrence of the same issues and challenges in the prevention and response system. These reports have proven to be valuable tools in improving the prevention and response system, assisting contingency plan workgroups, and in planning large unannounced drills.
3. **Previous actions taken by the Board on this item:** The Board accepts the annual drill monitoring reports while the OSPR Committee accepts the individual reports throughout the year. This is an ongoing program specifically identified in OPA 90 and the Alyeska contract with PWSRCAC.
4. **Summary of policy, issues, support, or opposition:** See above.
5. **Committee Recommendation:** The OSPR Committee reviewed this report at its February 17, 2023 meeting and recommended Board acceptance of the 2022 Annual Drill Monitoring Annual Report.
6. **Relationship to LRP and Budget:** Project 7520 – Preparedness Monitoring is in the approved FY2023 budget and annual work plan.

**7520 - Preparedness Monitoring**

As of March 20, 2023

Original Budget	\$30,400.00
Revised Budget	\$24,500.00
Actual & Commitments	\$4,137.66
<b>Amount Remaining</b>	<b>\$20,362.34</b>

## Report Acceptance: 2022 Drill Monitoring Annual Report 4-7

7. **Action Requested of the Board of Directors:** Accept the 2022 Annual Drill Monitoring Report for distribution.
8. **Alternatives:** None recommended.
9. **Attachments:** Draft 2022 Annual Drill Monitoring Report.



# **Prince William Sound RCAC Annual Drill Monitoring Report**

**2022**

**Prepared by: Roy Robertson  
Prince William Sound Regional Citizens' Advisory Council**

## 2022 Exercise Report Index

Date	Report Number	Description
3/12/22	752.431.220312.NNrapidOB.pdf	Orca Bay Rapid Response Vessel Deployment
3/23/22	752.431.220323.VMTdeployOLtact.pdf	VMT Field Deployment - On-Land Tactics
3/31/22	752.431.220331.CdrEmerTowEx.pdf	Tug Commander Emergency Towing Exercise
4/7/22	752.431.220407.OSRB1deploy.pdf	OSRB-1 Deployment in Port Valdez
4/18/22	752.431.210819.D51deploy.pdf	VMT Drainage 51 Settlement Pond Deployment
4/29/22	752.431.220429.CDVopsReadyEx.pdf	Operational Readiness Exercise in Cordova
5/9/22	752.431.220509.MClighteringEx.pdf	Mineral Creek Lightering Training Exercise
5/14/22	752.431.220514.VdzStarDeploy.pdf	Valdez Star Deployment
5/17-19/22	752.431.220517.CATshipperEx.pdf	Crowley Alaska Tankers Exercise
6/18/22	752.431.220618.HatcheryDeploy.pdf	Solomon Gulch Hatchery Deployment
6/29/22	752.431.220629.DuckFlatsDeploy.pdf	Valdez Duck Flats Training & Deployment
7/29/22	752.431.220729.ContendEmTowEx.pdf	Tug Contender Emergency Towing Exercise
8/11/22	752.431.220811.VMTsecConCOA2cEx.pdf	VMT Secondary Containment COA 2C Exercise
10/11-12/22	752.431.221011.VMTimtFieldEx.pdf	VMT IMT & Field Exercise
10/17/22	752.431.221017.SERVSwtTraining.pdf	Notes on SERVS Wildlife Training in Valdez 2022
Multiple	752.431.220101.FVrespTrainings.pdf	Notes on Fishing Vessel Response Training – Multiple Dates in 2022



## 2022 Exercise Summary

Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) staff observed and wrote fifteen exercises and training reports in 2022. This is up from six exercises from 2021, which were reduced due to the COVID-19 restrictions for most Alyeska exercises.

### Tanker Towing Exercises

PWSRCAC staff observed two tanker emergency towing exercises in 2022. The Prince William Sound Shippers and SERVS conduct at least one emergency towing exercise per quarter each year. Both emergency towing exercises that PWSRCAC observed were with Polar Tankers ships and were well done. Staff attempted to observe a third exercise but it was called off in mid-sound due to delays and darkness.

### Open-Water Response Exercises

Three open-water oil recovery exercises reports were developed by staff in 2022. The Valdez Star skimmer conducted a deployment in Port Valdez and the Oil Spill Recovery Barge (OSRB-1) also conducted a deployment in the Port. PWSRCAC chartered a vessel to observe a no-notice Rapid Response Vessel exercise with OSRB-3 and the tug INGOT on March 12, 2022, in Orca Bay.

### Nearshore Response and Sensitive Area Protection Exercises

Nearshore and sensitive area protections exercises were greatly reduced in 2020 and 2021 because of the number of vessel crew interactions required for these types of deployments and Covid-19 precautions. During the annual fishing vessel trainings in the spring and fall of 2022, SERVS began conducting operational readiness exercises (ORE) again that focused on nearshore response tactics. Staff wrote two reports on these OREs. SERVS also conducted training and deployments for the Valdez Duck Flats and the Solomon Gulch Hatchery. These are two of the key sensitive area protection (SAP) sites in Port Valdez for the Valdez Marine Terminal's oil discharge contingency plan. Staff attended both of these training deployments. The training and deployment for the Valdez Duck Flats SAP site was especially good for a complex SAP tactic.

## Valdez Marine Terminal Drills

The Valdez Marine Terminal (VMT) conducted three exercises specific to the terminal in 2022. There was winter on-land spill response tactics exercise in March. Alyeska also conducted a presentation describing how they would respond to a loss of a complete tank of crude oil within the secondary containment dike at the VMT as a requirement of the condition of approval for the VMT oil discharge contingency plan. In October, Alyeska conducted their annual incident management team exercise that included an on-water skimmer deployment at the VMT.

## Annual Prince William Sound Shipper's Exercise

The annual Prince William Sound Shipper's exercise was conducted by Crowley Alaska Tankers in May of 2022. This was a hybrid exercise with both a physical (SERVS Valdez Emergency Operations Center (VEOC)) and virtual command post using the Teams platform. This drill lasted was held over three days and covered the first 36 hours of a response to a 140,000-barrel crude oil spill in central Prince William Sound.

This exercise also included a field demonstration of a small vessel decontamination station in Port Valdez's Anderson Bay. In addition to the vessel decontamination activities, the Alaska Department of Environmental Conservation use its drone to record and broadcast the field demonstration to the command posts and that allowed responders in Florida and other sites to view those activities live and recorded later.

## SERVS Annual Fishing Vessel Training

PWSRCAC staff attends in- and out-of-region annual fishing vessel trainings. Normally, 400+ contracted fishing vessels participate in SERVS' program and trainings in Kodiak, Homer, Seward, Whittier, Cordova, and Valdez. These trainings were changed during the pandemic with more online components and a reduced number of on-water exercises. In 2022, the trainings increased to two on-water days but still no hands-on equipment training or other activities that required vessel crews to physically interact with each other. Alyeska recognized the value of the hands-on stations that allow all the vessel crews to see and be instructed on how to run the various spill response equipment at different stations prior to going out on the water. PWSRCAC staff have been told that the hands-on stations are coming back in 2023.

## Other exercises and trainings

PWSRCAC staff also attended a lightering barge exercise in May that allowed the crew of the barge MINERAL CREEK to practice using the equipment that would be employed to remove oil cargo from a tanker in distress, if needed.

SERVS held its oiled wildlife training in Valdez and Cordova in 2022. SERVS rotates this training yearly between Kodiak, the Kenai Peninsula communities of Homer and Seward, and the Prince William Sound communities of Cordova and Valdez. The oiled wildlife

training includes hazing, the capture of oiled birds and sea otters, and the process of stabilizing them and transporting to care facilities.

## **Suggestions for Future Exercises**

The list of exercises and other suggestions below is not meant to be an exhaustive list of all areas that need further focus and attention, but PWSRCAC would suggest it is a good place to begin. It should be noted that many of the concerns and exercise issues that PWSRCAC have noted through the years have remained consistent across time.

### Tanker Towing / Tanker Arrest Exercises

SERVS and the Prince William Sound Shippers have committed to quarterly emergency towing exercises throughout the year. This practice is better than the previous process of performing the towing exercises primarily during the summer. These exercises provide valuable training that is required for the tug crews and is beneficial to the tanker crews.

An improvement to the quarterly schedule would be to rotate shipping companies and their vessels through these exercises. It appears that Polar Tankers volunteers for these exercises much more often than the other shipping companies. The exercises do require extra time on the transit out but each of the tanker crews should participate in these exercises for the training benefit. There are at least four exercises per year and four tanker companies. There would be a training benefit to having each shipping company participate in one towing exercise each year. Having the tug crews working with the different ships would be an improvement to their training.

### Large and Small Vessel Decontamination

SERVS demonstrated their small vessel decontamination process during the Crowley Alaska Tankers drill in May. While the basic function of getting oil off the boat was demonstrated, the process used would have likely resulted in releasing some oil into the water and eventually out of containment. The process used by SERVS needs to be refined and practiced in additional exercises.

### Fishing Vessels

The SERVS Fishing Vessel Program is the backbone of the oil spill response system in Prince William Sound. In 2021, Alyeska had to make some modifications to their fishing vessel training to keep the vessel crews separated due to Covid-19 concerns. In 2022, SERVS still used an online format to the usual classroom portions of the training but also included two on-water days working with the oil spill equipment. SERVS recognized the value of going back to hands-on stations during last year's annual training. The hands-on stations allow vessel crews to be shown how to use the various spill equipment and, eventually, give them

a chance to operate it themselves. PWSRCAC has been told that the hands-on stations will be part of the 2023 annual training.

Often during the SERVS spring and fall annual fishing vessel program training, the weather will hinder the vessels that participate in the training from going out and exercising with the response equipment. When this situation occurs, SERVS conducts radio exercises in the harbor where they are conducting the training. The process that SERVS uses is to simulate the activities that would have occurred that day over the radios with the vessels. This includes simulating the loading of the equipment from the barge to the vessel and the first day of a response. This is what the actions would be if the weather had not precluded the actual deployments. The time and training during the radio exercises could be better spent, if instead of simulating the first day of operations including the load out of equipment, the response is moved forward a few days. This would allow vessel crews to simulate response actions and management of task forces for periods of the response that most of the vessel crews do not get to see or think about during a one-day exercise. This type of simulation could offer out-of-region vessels a way of becoming more familiar with the areas within Prince William Sound and the vessel crews to exercise resupply and waste management procedures for their vessels, the process of gross decontamination of their vessels, familiarization of geographic response strategies around Prince William Sound, and the identification of equipment needs for operations based on a list of equipment given to them as a inject. Many other areas could also be put into play as part of this type of training.

### Dispersant/ISB related

Alyeska and the PWS Shippers have switched contractors for aerial dispersant applications, if they are needed and approved. The new contractor is MSRC, based out of Washington State, and they replaced the Anchorage-based Lynden. There are still some questions about the ability of the MSRC planes and how this new system should be exercised.

Dispersant, SMART monitoring, and ISB-related exercises usually are practiced as individual components, and this separation of components may not reflect how these tactics would be employed in a real event. For example, it's possible that both aircraft and tug-based spray dispersant spray system would be in play at the same time, and both these efforts would need SMART monitoring from a vessel on the water as well as spotter aircraft.

- The MSRC dispersant system should be exercised to verify the overall system including the spotter plane, aircraft and spray system, and dispersant monitoring capabilities.

- Council suggests that, during an exercise or training, more of the various components of dispersant application be run simultaneously and managed as they could occur in a real event, versus as separate components.

## Open-Water Response

The SERVS open-water oil recovery task forces consist of four Oil Spill Response Barges (OSRB) and the skimming vessel VALDEZ STAR.

The four open-water Oil Spill Response Barges (OSRB), despite minor differences, are now all essentially standardized. This consistency across platforms allows crews to transfer between barges easier, make training back-up personnel easier, and simplify working with the contracted FV fleet.

The VALDEZ STAR (VS) is a JBF skimming platform that is set up to work with two boom towing boats from the SERVS fishing vessel program. The barge ALLISON CREEK is usually connected to the VS for additional storage if the VS was used in a large response operation. However, the ALLISON CREEK is currently laid up and a new barge is being built to replace it. SERVS is now operating the VS with various smaller oil storage devices as mitigation measures until the new barge is built and available for use.

Specific open water related suggestions:

- Over the last few years, the open-water response barges and VALDEZ STAR have been primarily exercised during the day and generally for short durations of only a few hours. During the winter months there are more hours of darkness than daylight and the fishing vessel crews working with these skimming platforms need to practice working in hours of darkness to become proficient.
- Exercises for the VALDEZ STAR should be conducted with the various primary storage devices it is expected to use while the barge ALLISON CREEK is not available.

## Lightering Barge

The current lightering barge MINERAL CREEK is about to be replaced with a new barge that is designed to be similar to the current OSRB barges. This will be an improvement to the overall response system as the current barge needs an upgrade. The new barge is supposed to arrive in Prince William Sound in the spring of 2023. While the new barge will be like the OSRBs, the function will be different since it will now carry the ship-to-ship fenders and the lightering pumps, hoses, and other equipment. In addition, the new lightering barge will also be set up to be a nearshore support barge to provide storage for the nearshore task forces and resupply for those vessels. All of these functions will need to be exercised to ensure its functionality.

## Operating in Darkness and Dense Fog

Operating in darkness and foggy situations has been included in this list for many years because much of the winter in Alaska is darkness, and long periods of fog or reduced visibility due to weather is not uncommon for the Prince William Sound area in either summer or winter.

Recognizing that darkness and limited visibility are a reality, PWSRCAC suggests that more training and exercise activity take place in darkness or periods of limited visibility, and include more fishing vessels and their respective crews so proficiency of working in the dark is improved. In addition, the ECO tug fleet has specific capabilities (FLIR cameras and Rutter Radar spill processing) that allow them to better see oil in limited visibility. More exercises using this improved technology should be conducted with the use of targets on the water for the tugs to practice tracking and positioning the barges correctly.

The PWS Tanker Plan calls for nearshore recovery operations to occur for twelve hours a day even during winter when there are only six hours of daylight. In the past there have been a few exercises to work on tactics for oil recovery in the nearshore environment. Operating in reduced or no visibility presents risks to vessels, crews and equipment that must be addressed to safely perform recovery operations during these times. Specific tactics for operating in these low or no visibility conditions are not included in the current response plan. Structured exercises should be conducted to determine what tactics can and should be used to safely recover oil during darkness or fog.

## Valdez Marine Terminal

In a broad sense, PWSRCAC would suggest that all tactics in the VMT technical manual be exercised in a 5-year plan cycle and that exercises take place over a variety of seasons and conditions.

Specific VMT-related suggestions include:

- This past year, Alyeska put a lot of effort in planning and preparing for the secondary containment exercise for the total loss of a tank. This was a valuable effort and allowed Alyeska to think through how such a response could be conducted. However, that exercise was more of a tabletop presentation. Components of that response should be tested in the field to confirm those proposed actions could work if needed.
- Continue with the multi-day Duck Flats training and conduct a similar intensive training for the Solomon Gulch Hatchery. The current training for the deployment of the Duck Flats by Alyeska is excellent and should continue. Much attention has been given to the Duck Flats deployment over the past several years, and Council

staff have observed the general proficiency level of responder increase. The connection of boom ends under tension in particular has been a responder safety concern, and SERVS has done a good job addressing this topic. Continue this work on the Duck Flats, but also conduct a similar training for the Solomon Gulch Hatchery.

- Over the last several years, PWSRCAC has pointed out the failure of the boom ends at the Drainage 58 containment site at the Fluor dock and jetty by the settlement pond outflow. Alyeska installed a stout tidal slider for connecting the boom to the Fluor dock. This is great improvement to the system. The other side of the containment strategy can still be improved by the addition intertidal boom and evaluating the best boom placement for that beach.

## Sensitive Area Protection & Nearshore Response

There is a difference between nearshore response and sensitive area protection components in spill response. The missions of these two elements are not the same, though response equipment, vessels, asset management, and training are very similar and overlap. Nearshore response systems should be designed to intercept and recover oil, as that oil gets close to shore, by working the leading edge of the spill. The mission of the sensitive area protection function is to get out ahead of the spill, and boom sensitive areas prior to oil reaching or threatening those areas. The management and logistical support for both of these operations can be challenging and complex, but it's important to realize that they have different goals despite similar and/or shared resources and management.

### Sensitive Area Protection

- The testing for the various GRS sites throughout Prince William Sound has been excellent and these exercises should continue.

### Nearshore Response

Nearshore response exercises will always be high on the Council's priority list simply because of the sheer volume of fishing vessels associated with this response area. The crews of all these vessels need to be proficient with the equipment, and equipment does continue to change over time.

- The nearshore response will likely be one of the large response areas during a major oil spill response. Over that last few years, PWSRCAC staff have noticed the number of turnovers in the response crews for SERVS, TCC, and in the fishing vessel captains and crews. A lot of knowledge and history is retiring or leaving and are now having to be replaced. The newer people need more exercises to learn and become proficient with the response tactics and response equipment.

- The PWS Tanker Contingency Plan notes that nearshore will perform recovery operations for twelve hours a day, which means it's inevitable that many of those hours will require operating in reduced visibility during winter months, or foggy days in summer. As nearshore operations generally do not take place during these situations, we do not have very good benchmarks regarding what operations can safely be conducted, or how to adjust tactics accordingly. More exercises are needed to refine these limited visibility nearshore parameters.
- SERVS has been working to ensure responder safety by taking air reads at open hatch covers while offloading mini-barges. The open hatches are necessary to some degree so that responders can watch liquid levels drop and adjust or turn off pumps accordingly. SERVS should consider mounting air monitoring sniffers on a longer pole, or using a hose or tube to get responders farther away from the hatches they are opening. PWSRCAC has concerns that vapor levels could be elevated by concentrating the oil in a mini-barge as mentioned previously. It's good that SERVS is working to quantify vapors in this potentially hydrocarbon-rich atmosphere, and ultimately protect responder health, but the process still needs some refinement and practiced.

### Unannounced Exercises

Unannounced drills provide the only real measure of a plan holder's ability to respond at a point in time and at a moment's notice. These drills have the ability to test areas of a response that cannot easily be tested otherwise, such as personnel readiness and resupply capabilities. There could even be unannounced aspects to a known event, such as verifying responders have proper PPE once they arrive on scene or discussing what an elevated and unsafe air read would mean for responders and given process, etc.

- No-notice exercises are valuable and should be continued periodically to help ensure readiness. SERVS uses these types of exercises to good effect to monitor their rapid response fleet.



## Briefing for PWSRCAC Board of Directors – May 2023

**INFORMATION ITEM**

**Sponsor:** Maia Draper-Reich and the Information and Education Committee  
**Project number and name or topic:** 3500 - Community Outreach

1. **Description of agenda item:** This is an information item to update the Board on PWSRCAC outreach events, as well as work accomplished by the Fishing Vessel Program Community Outreach (3410) and Youth Involvement (3530) projects during FY2023.
2. **Why is this item important to PWSRCAC:** The Community Outreach program and projects help achieve the Council's mission through increasing public awareness and sharing the Council's work with a variety of audiences. The different types of programs and events also increase communications with member entities and individuals in the Exxon Valdez oil spill region. This work helps maintain regional balance and foster partnerships.
3. **Previous actions taken by the Board on this item:** None.
4. **Summary of policy, issues, support, or opposition:** According to OPA 90 and the Council's contract with Alyeska, community outreach fulfills the following requirements:

OPA 90:

- Provides regional balance, broadly representative of communities and interests in the region.
- Provides advice to regulators on the federal and state levels.
- Provides advice and recommendations on policies, permits, and site-specific regulations relating to the operation and maintenance of terminal facilities and crude oil tankers.
- Provides advice and recommendations on port operations, policies, and practices.
- Fosters partnerships among industry, government, and local citizens.

Alyeska Contract:

- Provides 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.
- Increases public awareness of subjects listed above.
- 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. **Committee Recommendation:** IEC reviews updates on Community Outreach efforts and projects at each committee meeting. This is an informational item to the Board only; no action is recommended by the committee at this time.

6. **Relationship to LRP and Budget:** Project 3500 - Community Outreach, Project 3410 - Fishing Vessel Program Community Outreach, and Project 3530 - Youth Involvement are in the approved FY2023 budget and annual work plan.

**3500 - Community Outreach**

As of March 20, 2023

Original Budget	\$50,175.00
Revised Budget	\$44,112.00
Actual & Commitments	\$18,520.49
<b>Amount Remaining</b>	<b>\$25,591.51</b>

**3410 - F/V Community Program Outreach**

As of March 20, 2023

Original Budget	\$16,000.00
Revised Budget	\$6,000.00
Actual & Commitments	\$0.00
<b>Amount Remaining</b>	<b>\$6,000.00</b>

**3530 - Youth Involvement**

As of March 20, 2023

Original Budget	\$50,750.00
Revised Budget	\$50,000.00
Actual & Commitments	\$19,917.00
<b>Amount Remaining</b>	<b>\$30,083.00</b>

7. **Action Requested of the Board of Directors:** None. Item is for information only.

8. **Alternatives:** Not applicable.

9. **Attachments:** None.

## Briefing for PWSRCAC Board of Directors – May 2023

**ACTION ITEM**

**Sponsor:** Donna Schantz and the Board of Directors

**Project number and name or topic:** 210 – Board Committee Appointments

1. **Description of agenda item:** Appointments are made annually to four of the standing Board and ad hoc committees; the Finance Committee, the Long Range Planning Committee (LRPC), Board Governance Committee (BGC), and Legislative Affairs Committee (LAC). The purpose of this agenda item is to solicit interest and appoint members to the following committees:

**Finance Committee:** By resolution, the Finance Committee must be seated at the time the operating budget is adopted. The committee will be comprised of the newly elected Treasurer, who shall chair the committee, and at least three members of the Board of Directors. The most recent Finance Committee was comprised of Wayne Donaldson (Treasurer), Robert Archibald, Mako Haggerty, and Angela Totemoff. Once appointed, the Finance Committee will be charged with: reviewing interim financial reports and proposed budgets; meeting with the independent auditor at least annually to review the scope of each year’s annual audit and the findings of such audit; meeting with PWSRCAC’s management and financial staff to review internal controls and to develop additional interim reporting methods to assist the Board; and assisting staff and/or auditors with the drafting of the annual financial statements and notes. Estimated time commitment is 4-5 meetings per year.

**Long Range Planning Committee:** The Board approves the annual process for Long Range Planning and budgeting. The process begins with the appointment of Board members to the LRPC each year in May. At least three members of the Board of Directors are desired to serve on the committee, as well as the chairs of all five technical committees. The most recent LRPC was comprised of Directors Robert Archibald, Amanda Bauer, Elijah Jackson, and Angela Totemoff; Cathy Hart from the IE Committee; and the five technical committee chairs. Estimated time commitment is 5-6 meetings per year, including the December and January in-person workshops. The Long Range Planning Committee is an ad hoc Committee and as such is not included as a Standing Committee in PWSRCAC Bylaws.

**Board Governance Committee:** BGC is responsible for the organizational health and effectiveness of the Board. Its responsibilities include Board development, which includes training new Board members, as well as ongoing development of Board job descriptions. The BGC is also responsible for annually reviewing the Council’s bylaws and practices and recommending any changes it deems appropriate related to Board structure or operations. By way of example, the BGC should periodically review the manner in which meetings are conducted, the responsibilities of the Board officers,

and the use of both standing and ad hoc committees. The BGC shall assist the President of the Board by recommending action in appropriate circumstances on issues regarding individual Board members, including their participation or lack thereof with regard to Council's activities. Per its Charter, the BGC shall consist of at least three Board members. The most recent BGC was comprised of Dorothy Moore, Mike Bender, Luke Hasenbank, and Robert Beedle. Estimated time commitment is 3-5 meetings per year, as needed.

**Legislative Affairs Committee:** The LAC monitors developments in the Alaska State Legislature and on a federal level, recommends action to be taken to the full PWSRCAC Board of Directors, and, as directed by the Board, communicates PWSRCAC positions to lawmakers. The Committee's work is supported by outside contractors to monitor pertinent state and federal matters. LAC should consist of at least three Board members. The most recent Legislative Affairs Committee was comprised of Dorothy Moore, Robert Archibald, Mako Haggerty, Robert Beedle, Kirk Zinck, and Elijah Jackson. Estimated time commitment is one meeting every other week throughout the legislative season. In addition, two Board members are budgeted to travel to Juneau and Washington, D.C., for legislative outreach visits.

2. **Why is this item important to PWSRCAC:** Members of the Board of Directors have a responsibility to oversee various tasks of the Council. It is important that each of these committees be staffed with Board member appointees annually to ensure sufficient Board participation and direction.

3. **Action Requested of the Board of Directors:** Appoint Board members to the following committees:

- Finance Committee (Treasurer and at least three Board members).
- Long Range Planning Committee (at least three Board members), the five technical committee chairs and consideration of approving volunteer Cathy Hart.
- Board Governance Committee (at least three Board members).
- Legislative Affairs Committee (at least three Board members).

4. **Alternatives:** None proposed.

5. **Attachments:**

- A. Excerpts from PWSRCAC Bylaws on Standing Committees
- B. Resolution 03-03 Creating the Finance Committee
- C. Board Governance Committee Charter

## **Excerpts from PWSRCAC Bylaws Regarding Standing Committees**

3.18.1 Creation of Committees. The Board may designate and appoint one or more standing or temporary committees, including an Executive Committee, from its own number and invest such committees with such powers as it may see fit, subject to such conditions as may be prescribed by the Board, these Bylaws and applicable law. The designation and appointment of any such committee and the delegation of authority thereto shall not relieve the Board or any individual Director of any responsibility imposed by law. The Board may also designate and appoint one or more standing or temporary committees that may include persons other than Directors, but it shall not delegate to any such committee any authority or responsibility imposed on the Board by law, the articles of incorporation or these Bylaws. Members may be appointed to the standing committees, other than the Executive Committee, by the Executive Committee or by Board poll. Such appointments shall be ratified at the next meeting of the full Board.

### 3.18.2 Authority Standing of Committees.

3.18.2.1 Executive Committee. The Executive Committee shall be composed of the officers of the corporation other than the Executive Director and a member at large and may include two additional members at large from the board of directors. Subject to limitations on authority imposed by the Board, the Executive Committee shall have and may exercise all of the authority of the Board, except that no such committee shall have the authority to (1) amend the Articles of Incorporation, (2) adopt a plan of merger or consolidation with another corporation, (3) authorize the sale, lease, exchange or mortgage of all or substantially all of the property and assets of the corporation, (4) authorize the voluntary dissolution of the corporation or revoke proceedings therefore, (5) adopt a plan for the distribution of the assets of the corporation, (6) amend these Bylaws, or (7) approve or substantially modify the corporation's budget and/or contractual commitments.

3.18.2.2 Board Governance Committee. The Board Governance Committee is responsible for the organizational health and effectiveness of the Board. Its responsibilities include Board development, which includes training new Board members, as well as ongoing development of Board position job descriptions. The Board Governance Committee also is responsible for annually reviewing the Council's Bylaws and practices and recommending any changes it deems appropriate related to Board structure or operations. By way of example, the Board Governance Committee should periodically review the manner in which meetings are conducted, the responsibilities of the Board officers, and the use of both standing and ad hoc committees. The Board Governance Committee shall adopt and abide by a Charter approved by the Board. The Board Governance Committee shall assist the President of the Board and chairs of the Council's committees, recommending action in appropriate circumstances, in issues regarding individual Board Members, including their participation or lack thereof with regard to council's activities.

3.18.2.3 Finance Committee. The responsibility of the Finance Committee is to assist the Board in carrying out its fiduciary responsibility to oversee the financial affairs of the organization and the annual independent audit of the Council's finances. The duties of the Finance Committee may include review and / or recommendation to the Board regarding acceptance or amendment of interim financial reports and proposed budgets. The Finance Committee will meet with the independent auditor at least annually to review the scope of the annual audits and audit findings, review internal controls, annual financial statements, the IRS Form 990, and review and provide guidance on risk management, insurance policies, property management, procurement, contracting policies, insurance, fiscal ethics and compliance programs, and overall fiscal governance. The Finance Committee shall be appointed to one-year terms by the Board at the May Board meeting or at the time the budget is adopted. The Committee shall be comprised of the Treasurer, who shall chair the Committee and at least three members of the Board of Directors. (Resolution 03-03).

3.18.2.4 Legislative Affairs Committee. The responsibility of the Legislative Affairs Committee is to advise the Board on state and federal legislative matters directly related to the PWSRCAC mission and its duties as set forth in the Oil Pollution Act of 1990 (OPA 90) and the contract with Alyeska Pipeline Service Company. The responsibilities of the Legislative Affairs Committee may include advising the Board on legislative priorities, relevant legislation and regulations, administrative actions, and department budgets. The Committee may produce informational materials on legislative priorities that educate and inform, make recommendation to the staff on administrative actions that advance legislative priorities, and participate in legislative visits to Juneau and Washington D.C. Committee members shall serve one-year terms and shall be appointed by the Board at the May Board meeting. The Committee shall be comprised of at least four Board members.

##



Regional Citizens' Advisory Council / "Citizens promoting environmentally safe operation of the Alyeska terminal and associated tankers."

In Anchorage: 3709 Spenard Road / Anchorage, Alaska 99503 / (907) 277-7222 / FAX (907) 277-4523  
In Valdez: P.O. Box 3089 / 339 Hazelet Avenue / Valdez, Alaska 99686 / (907) 835-5957 / FAX (907) 835-5926

RESOLUTION 03-03

MEMBERS

- Alaska State Chamber of Commerce
- Alaska Wilderness Recreation & Tourism Association
- Chugach Alaska Corporation
- City of Cordova
- City of Homer
- City of Kodiak
- City of Seldevia
- City of Seward
- City of Valdez
- City of Whittier
- Community of Chenega Bay
- Community of Tatitlek
- Cordova District Fishermen United
- Kenai Peninsula Borough
- Kodiak Island Borough
- Kodiak Village Mayors Association
- Oil Spill Region Environmental Coalition
- Prince William Sound Aquaculture Corporation

WHEREAS, Article 3.18.1 of the Bylaws of the Prince William Sound Regional Citizens' Advisory Council provides for the creation of committees by resolution of the Board of Directors; and

WHEREAS, the Board of Directors has determined that the creation of a Finance Committee will assist them in their fiduciary responsibility of overseeing the financial affairs of the organization.

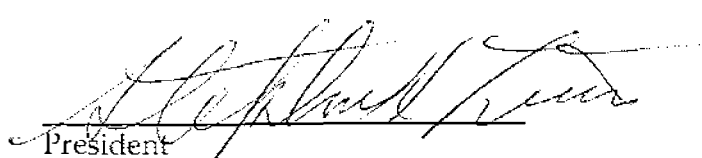
NOW, THEREFORE, BE IT RESOLVED that a Finance Committee shall be created;

FURTHER RESOLVED, that the Finance Committee shall be comprised of the of the Treasurer who shall chair the committee and at least three members of the Board of Directors;

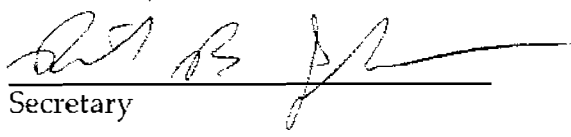
FURTHER RESOLVED, that the members of the Finance Committee shall be appointed to one-year terms by the Board of Directors at the May board meeting or the time the budget is adopted;

FURTHER RESOLVED, that the Finance Committee shall be charged with:

- (a) Reviewing interim financial reports and proposed budgets and making recommendations to the Board for acceptance or changes to the reports and budgets;
- (b) Meeting with the independent auditor at least annually to review the scope of each year's annual audit and the findings of such audits;
- (c) Meeting with PWSRCAC's management and financial staff to review internal controls and develop additional interim reporting methods to assist the Board;
- (d) Assisting staff and/or auditors with the drafting of the annual financial statements and notes.

  
\_\_\_\_\_  
President

Date: 9/25/03

  
\_\_\_\_\_  
Secretary

## Board Governance Committee Charter

### Prince William Sound Regional Citizens' Advisory Council

**Purpose.** The Board Governance Committee is responsible for the organizational health and effectiveness of the Board.

**Responsibilities.** The Board Governance Committee has the following responsibilities, as established by the Council Board:

- Adopt and abide by a Charter approved by the Board.
- Annually review the Council's Bylaws and practices, and recommend any changes it deems appropriate related to Board structure or operations. By way of example, the Board Governance Committee should periodically review the manner in which meetings are conducted, the responsibilities of the Board officers, and the use of both board-only standing and ad hoc committees.
- Board development recommendations, which includes training for new Board members, as well as ongoing development of Board position job descriptions.
- Assist the President of the Board and chairs of the Council's committees, recommending action in appropriate circumstances, in issues regarding individual Board Members, including their participation or lack thereof with regard to council's activities.

**Membership, Quorum, and Terms of Service.** The Governance Committee consists of at least three Board members appointed in accordance with Sec. 3.18.1 of the Council Bylaws.

Committee members are appointed annually. The Committee selects its own Chair annually from among the members of the Committee. A quorum consists of three members.

**Accountability.** The Governance Committee is accountable to the Board of Directors.

**Responsible Staff Person.** The Executive Director, or his or her designee, is responsible for the administration of the work of the Governance Committee.

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**Briefing for PWSRCAC Board of Directors – May 2023**

**INFORMATION ITEM**

**Sponsor:** Ashlee Hamilton, Financial Director

**Project number and name or topic:** Annual Code of Conduct  
 Acknowledgement, Statement of Residency, and Conflict of Interest Disclosure

1. **Description of agenda item:** Each year Board members are asked to acknowledge PWSRCAC’s Code of Conduct, complete a Statement of Residency, and complete the Conflict of Interest and Transactions with Interested Parties form. This requirement is stated in PWSRCAC’s policies or bylaws. The Conflict-of-Interest form is used to identify the financial interests Board members, or their close relatives, may have in Alyeska Pipeline Service Company or any of Alyeska’s owner companies. The Transactions with Interested Parties form is used to identify financial interests Board members, or their close relatives, may have with vendors doing business with PWSRCAC and is the basis for some of the information provided on the annual Form 990 submitted to the Internal Revenue Service. [Social media guidelines](#) are included with the Code of Conduct. Other Board-approved policies and procedures referenced in these documents are available on [www.pwsrcac.net](http://www.pwsrcac.net).

2. **Why is this item important to PWSRCAC:** Conducting business according to standards set by the PWSRCAC Board enhances the Council’s overall credibility and effectiveness as an organization. The Statement of Residency is a requirement stated in the bylaws. The Conflict of Interest and Disclosure forms help ensure Board members do not have a financial stake in Alyeska and that business transactions are conducted in an ethical and legal fashion.

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

<u>Meeting</u>	<u>Date</u>	<u>Action</u>
XCOM	2/1999	Directed legal counsel to draft language for a conflict-of-interest bylaw change for the March meeting.
Board	3/1995	Amended bylaws to include a conflict-of-interest statement.
Board	2/1992	Approved policy 101, conflict of interest statement.
Board	5/2011	Approved a consolidated conflict of interest form to be signed annually by Board members.
Board	9/2013	Briefed on content of review by council lawyer for information including recommendation that requirement of form extend to all volunteers.

4. **Summary of policy, issues, support or opposition:** An explanatory memo prepared by Council attorney Joe Levesque summarizing conflict of interest issues is attached.

5. **Committee Recommendation:** Not Applicable.

## Annual Board Required Documentation Completion 4-10

6. **Relationship to LRP and Budget:** Not Applicable.
7. **Action Requested of the Board of Directors:** Each Board member is asked to complete these forms. No formal Board action is required. Staff are available to answer specific questions members may have about these forms.
8. **Alternatives:** Not applicable.
9. **Attachments:**
  - A: Code of Conduct and Board Statement of Residency
  - B: Conflict of Interest and Transactions with Related Parties Disclosures
  - C: Memo from Joe Levesque dated July 9, 2013, regarding Conflicts of Interest

## LEVESQUE LAW GROUP, LLC


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### MEMORANDUM

TO: Steve Rothchild, Administrative Deputy Director  
Prince William Sound Regional Citizens' Advisory Council

FROM: Joseph N. Levesque 

DATE: July 9, 2013

RE: Conflicts of Interest  
Our File No. 474-1

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### Introduction

You have requested that I provide you a legal definition of "conflict of interest," and a sampling of examples illustrating potential "conflicts of interest." In reviewing this Memorandum, you will note that there is no easy definition of "conflict of interest," especially in Alaska, where everyone seems to be related to or know everyone to some degree.<sup>1</sup> For example, while many people concern themselves with real potential "conflicts of interest," others imagine various types of potential "conflicts of interest." Therefore, the important points to remember are to use common sense and to self-disclose any potential "conflicts of interest."

#### **A. General Definition**

For directors of nonprofit corporations, there exists a potential conflict of interest whenever a director holds a personal stake in the outcome of a particular issue that the board must decide. Conflicts of interest arise when a board member's personal interest in the outcome of an issue is sufficiently great that affects, and is therefore in "conflict"

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<sup>1</sup> See, *Getting ethics right – it's harder than you think*, The Foraker Group, [www.forakergroup.org/index.cfm/print/Resources/President's-Letter/Focus/545](http://www.forakergroup.org/index.cfm/print/Resources/President's-Letter/Focus/545), accessed 7/9/2013, Attachment A.

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with, his or her duty to make decisions on behalf of the organization solely for the purpose of furthering and serving the organization's interests.

## **B. The Origin and Types of Conflicts of Interest**

Directors of nonprofit corporations are fiduciaries, and as such, owe fiduciary duties to the organization that they serve. One of these is the *duty of loyalty*, which requires directors to base their management decisions on the organization's best interests, as opposed to the director's personal interests, or the interests of the director's associates. It is from this duty of loyalty that a director's obligation to avoid conflicts of interest originates. A director faithfully executes this obligation by doing everything reasonably possible to avoid conflicts of interest. This obligation is set forth clearly in the Prince William Sound Regional Citizens' Advisory Council ("PWSRCAC") bylaws, which state at Section 3.20:

Council members with a financial interest shall ensure that it does not conflict with the fair and impartial conduct of his or her council duties.

A director may face numerous types of potential conflicts of interest through his or her tenure on a nonprofit corporation's board of directors. The classic situation that creates a potential conflict of interest, and the one that appears to be the primary focus of the PWSRCAC bylaws and the organization's self-disclosure requirements, occurs when a financial benefit may flow from an official board action to a director, or to the director's associates. Another situation that commonly creates potential conflicts of interest for nonprofit board members occurs when one or more possible outcomes of official board decision may have an effect upon another person or entity to which a board member also owes a duty of loyalty, such as a different nonprofit.

However, the fact that there exists a *potential* conflict of interest does not mean that a *true* conflict of interest exists at all. There are countless situations that may appear to one person as being a clear conflict of interest, but to others as presenting no conflict at all. A director's duty of loyalty to his or her organization, and the director's related obligation to avoid conflicts of interest, requires that the director to take every reasonable step to avoid conflicts.

For PWSRCAC directors, this means that directors must *disclose* to the Board the existence of any potential conflicts of interest, and to permit the Board to decide, according to the procedures set forth at 3.20(F) in its Bylaws, whether a conflict exists, and whether the best interests of the organization require that the conflicted member abstain from participating in the resolution of a particular issue.

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### **C. Financial Conflicts of Interest**

The class of potential conflicts of interest that is most often discussed is financial in nature. Financial conflicts of interest appear to be the primary focus of the PWSRCAC Bylaws. Although the Bylaws discuss potential financial conflicts of interest in more general terms, it appears that Part 1 of the organization's self-disclosure forms focus exclusively on the identification of ties between directors and Alyeska Pipeline Service Company, or Alyeska's owners (BP, ConocoPhillips, ExxonMobil, and Koch). However, it is important to note that PWSRCAC Board members have a duty to disclose other potential financial conflicts of interest implicated by board decision-making.

For PWSRCAC, a potential for financial conflicts of interest arises whenever a director is asked to participate in a board's decision-making process, the outcome of which could result in the flowing of a financial benefit from the organization to the director, a family member, or to a close associate. Accordingly, Section 3.20(C) of the Bylaws generally prohibits Board members from holding financial interests that "conflict[] with the fair and impartial conduct of his or her duties."

PWSRCAC directors must notify the Board's presiding officer that there may exist a potential conflict of interest whenever the director realizes that an issue that has come before the Board has the potential to result in financial gain, for the director, the director's family, or for any person or other entity to which the director is closely associated. The director must notify the presiding officer as soon as the director becomes aware that the potential conflict exists.

The provision of this notice does not always mean that the director is disqualified from participating in the resolution of the issue that gives rise to the potential conflict. Section 3.20(F) does provide that members may not vote "on any question in which the member has a *direct* financial interest." However, that Section makes it clear that it is up to the presiding officer to make an initial ruling as to whether the potential conflict of interest is sufficient to require a director's exclusion from an official vote. As an added check, the presiding officer's determination may be overridden by a simple majority of other directors. It is the fact that the Board was made aware of the potential conflict, and was permitted the opportunity to meaningfully weigh the potential conflict against the best interests of the organization, that is most important.

### **D. Examples of Direct Financial Conflicts of Interest**

1. Board member A has decided to accept a position as CEO of the organization on whose board she serves. The current bylaws do not permit an individual to be employed by the organization and to serve as a director at the same time. Board member B introduces a motion to amend the bylaws to permit employees to serve as board members. Board Member A has a direct financial interest in the outcome of the motion, and may not vote on the issue.

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2. The board of directors has issued an RFP for a company to provide it with legal services. A firm that is owned by the spouse of a board member responds to the RFP. There is the appearance that the board member has a direct financial interest in awarding the contract to the spouse's firm, and therefore, may not vote on the issue.
3. A Nonprofit Organization's purpose includes the monitoring of ACME's business practices. The organization's monitoring results in significant increased operating costs for ACME, which reduces the dividend distributions to its shareholders. One of the organization's board members inherits ACME stock from a deceased relative. The board member now has a direct financial interest in the outcome of any business decisions that may affect ACME's net profits, has a direct financial interest in the outcome of these issues, and therefore, may not vote on them.
4. A Nonprofit Organization's purpose includes the monitoring of ACME's business practices. The organization is considering a new method of monitoring ACME, which would likely result in significant increased operating costs for the company and a very significant reduction in the amount that ACME's retired employees will receive in their monthly pension checks. One board member is an ACME retiree, and receives a pension from the company. That board member has a direct financial interest in the outcome of the organization's decision regarding the new monitoring practices, and therefore may not participate in any vote on the issue.

**E. Examples of Indirect Financial Conflicts of Interest**

1. A Nonprofit Organization's purpose includes the monitoring of ACME's business practices. One board member has a child whose husband works for ACME. The organization's board is deciding whether to take an official action that the board member suspects may cause ACME to downsize the department in which the child's husband works. The board member has an indirect financial interest in the outcome of the issue, and must disclose that interest to the board before participating in the decision-making process.
2. A Nonprofit Organization has issued an RFP for a company to supply its office equipment and administrative materials. One company that responds is owned by one of the director's best friends. The director very likely has an indirect financial interest in the outcome of the contract's award, and must disclose this potential conflict to the board's presiding officer before participating in any board action related to it.

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#### **F. Associational Conflicts of Interest**

Although PWSRCAC Bylaws focus on potential financial conflicts of interest, the organization's directors must also take steps to avoid potential associational conflicts of interest. These would most generally arise if a PWSRCAC director sits on multiple boards, or owes a duty of loyalty to some other corporate or membership entity that stands to be affected by PWSRCAC's activities.

As with potential financial conflicts of interest, any director who suspects that a potential board outcome could have an effect on another organization to which the director owes a fiduciary duty, must disclose that potential conflict to the presiding officer as soon as possible. This ensures the Board's ability to determine whether the best interests of the organization require that the potentially conflicted member abstain from participating in the decision-making process regarding the action at issue.

#### **G. Examples of Associational Conflicts of Interest**

1. A Nonprofit Organization has for years held its annual retreat in Oceantown, because Major Airlines had a hub there, which made it the most inexpensive and convenient forum. The annual retreat was a significant source of income to Oceantown. One of the organization's directors also sits on the Oceantown Citizens' Community Development Squad. Recently, Major Airlines relocated its regional hub to Mountaintown, making Oceantown no longer the most inexpensive and convenient forum for the annual retreat, and now the board is considering whether to relocate the annual meeting to Mountaintown. The director has a potential associational conflict of interest, and must disclose it to the board's presiding officer before participating in any board action related to the relocation of the retreat from Oceantown to Mountaintown.

#### **H. What Must Be Disclosed in PWRSCAC's Disclosure Form**

Parts 1 and 2 of PWSRCAC's Standard Disclosure Form require that directors identify and list only some of the many potential sources for conflicts of interest. Part 1 relates only to a director's ties to Alyeska Pipeline Service Company and to its owners. Directors are required to disclose not only their own personal financial ties, but also the ties of their spouses, children, partners, and other organizations for which the director serves as an employee, director, trustee, or fiduciary.

This would include, but is not limited to:

- Any financial ties that the director has to Alyeska, or to its owners.
- The financial ties that the director's spouse and children have to Alyeska, or to its owners.

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- The financial ties that any organization for which the director serves as employee, officers, director, trustee, or partner has to Alyeska, or to its owners, including, for example:
  - Pension, retirement and shared income plans.
  - Income or financial benefit derived from current or former employment with Alyeska and/or its owners.
  - Income resulting from former business conducted with Alyeska and/or its owners.
  - Income resulting from a professional association doing business with Alyeska and/or its owners (for example, the fact that a director was previously employed by a union, and receives a retirement from the union that is supported by the business it conducts with Alyeska and/or Alyeska's owners).
  - Ownership of stock, stock options, bonds, or securities in Alyeska and/or Alyeska's owners.
  - Status as the beneficiary of a trust that is funded by Alyeska and/or its owners, or some other entity that has done or currently does business with Alyeska and/or its owners.

Part 2 is used for the organization's required reporting to the IRS, and requires directors to identify both past and potential future transactions between PWSRCAC and any other entity, in which the director held, or holds, some financial interest. Unlike Part 1, Part 2 does require directors to identify the amount of all covered past transactions, as well as any known balances for upcoming transactions.

### **Conclusion**

PWSRCAC directors are required to disclose the existence of any and all potential conflicts of interest to the Board before participating in any official action related to the potential conflict. It is clear that the determination of whether a potential conflict is sufficient to warrant a director's exclusion from participation in official Board action is difficult. However, not all potential conflicts necessitate exclusion. PWSRCAC Bylaws make it clear that directors are absolutely forbidden from participating in official Board actions that may affect a director's direct financial interests. However, it is up to the presiding officer, and the Board at large, to determine whether a direct financial conflict of interest exists, or whether the best interests of the organization require that a potentially conflicted director is excluded from participating in any decision-making process related to a particular issue. The important consideration is that the Board was



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informed of the conflict or potential conflict, and was therefore capable of rendering a decision regarding an issue that in all respects represented and furthered PWSRCAC's best interests.

I remain available to discuss this matter with you. Please do not hesitate to contact me if you have any questions whatsoever or require additional information.



## Getting ethics right - it's harder than you think

When Foraker introduced its first class, Board Roles and Responsibilities, questions peaked when we got to the discussion on conflicts of interest. In hindsight, I may have been too cavalier in my assessment of conflicts. I would simply say: "this is Alaska, everything is a conflict of interest - get over it." But seriously, compared to many places, we do have the opportunity to address conflicted interest more than almost anywhere else in the country. We know one another here - and Alaskans aren't afraid to speak up when they see a conflict.

All corporations have the legal duty to avoid conflicts of interest. However, because of their civic and charitable missions, nonprofit corporations, specifically 501 (c)(3), (c)(4), and (c)(6) organizations, should exceed the law's expectations to maintain the public's trust. Conflicts in our sector come in two basic forms. One occurs when an individual of influence (a board member or an executive) or an immediate family member could receive financial benefit from the nonprofit they serve. The second occurs when an individual could experience mixed loyalties while serving two or more organizations. If the interest of one organization runs counter to that of the second, it's virtually impossible to serve each fairly. Both these examples represent conflict of interest, and both are real life dilemmas for many Alaskans serving on nonprofit boards and staff.

### ***The conflict of personal financial benefit***

This type of conflict recently received attention in Washington D.C. from a Senate oversight committee. The Senate's concern focused on families that created charitable foundations and then paid themselves generous stipends to serve on the board or staff. That's considered "self-dealing" and we're not immune to it here in Alaska. Consider the case of former Fairbanks Mayor Joe Hayes and his wife. They formed a faith-based nonprofit, served on its board with close friends, then received federal funds which they used for personal benefit. The result was a perfect storm for conflicts of interest.

Other examples of conflicts from financial benefit include:

- Serving on the board and as paid staff for the same organization - it's not illegal, but it's also not considered a "best practice" because of the inherent conflicts for that individual.
- Approving service contracts to the company of a board member without transparency in reaching that decision, including full disclosure and abstention in the vote by the board member.
- Lobbying by a board member for a family member to receive a paid staff position.

We've also run across cases when individuals start a nonprofit as a way to secure personal employment. Often these folks are entrepreneurs who want little from their nonprofit experience than personal financial gain. They naively assume that getting money from the government or a foundation is easy. Eventually they either starve when they can't get the funds they expected, or too often, use inappropriate methods to get what they want. Such individuals are best advised not to start nonprofits. They should more appropriately create a for-profit corporation and then pay themselves whatever they wish. In our sector, no employee or board member should have the capacity to set their salary or any benefit without total openness and fairness. In the rare occasion where a nonprofit board provides financial reimbursement for board service, as is the practice in some rural nonprofits, those decisions should be made with full disclosure including benchmarking the compensation to like-sized organizations with similar missions.

### ***The conflict of dual loyalty***

This type of conflict is best understood by example. John Smith serves on the board of Nonprofit A, which has adopted a certain position on an issue. John then attends a meeting as a director of Nonprofit B and votes for a

position that is opposite to that of Nonprofit A. Another example - Judy Brown serves on a board debating an economic development opportunity. Judy also works for a corporation that could either benefit or be harmed by the outcome of the organization's position. Both John and Judy find themselves in a conflict of dual loyalty.

The challenge of avoiding a conflict of dual loyalty is especially difficult in our villages. From the beginning, villages had tribal organizations. With statehood, many created city governments. With the adoption of ANCSA, most created village corporations. These organizations all need board members to govern them. In a community of a few hundred people, half of whom can be under 18, there's little way to avoid dual loyalties.

When multiple organizations in one small community have conflicting interests, maybe the answer lies in collaboration among the city, the tribe and the corporation to assure board members don't get caught in the web of dual loyalty. Another solution is to operate with a great degree of transparency. For example, try to avoid executive sessions. To ensure pure motives, even when dealing with personnel issues, it may be in the best interest of boards to conduct as much of their decision-making as they can in public. That's how to demonstrate they conducted business in the interest of the organization, not any individual or family.

### ***No organization is immune from conflict of interest***

Our donors often keep us honest. But we all have seen examples when even sophisticated donors seem to stop thinking when they work with charitable nonprofits. Remember the 1992 United Way of America scandal? I do. I was teaching a class there the week the news broke and helped to organize efforts to force the resignation of CEO Bill Aramony. Bill was a tremendous leader. Had he retired when he turned 65 in 1987 - as many of his friends encouraged him to do - he would no doubt have been memorialized as the man who not only built the United Way system, but moved the nonprofit sector toward a higher level of professionalism. However, because he stayed around too long and along with his staff and board did not pay attention to obvious conflicts of interest, he was forced to retire to a federal penitentiary and a life of shame and embarrassment.

Aramony had built one of the strongest nonprofits in America by recruiting a tremendous staff. However, toward the end of his career he would not listen to some of these very bright and ethical people if they did not agree with him. He also recruited one of the most influential boards in America. He had the CEO's of UPS, American Express, IBM, USA Today, Hospital Corporation of America, United Airlines, The NFL, etc., etc. etc. He had the leaders of the Communications Workers of America and the AFL-CIO. When the scandal occurred, he even had a board member named Gates, before he was a billionaire. One could think that so much corporate power would observe and confront questionable behavior - but that wasn't the case. This lack of reaction to obvious conflicts has damaged our entire sector for 16 years. When it comes to conflicts of interest and ethics, the United Way of America scandal taught us to take nothing for granted.

### ***What we learned from the United Way of America case***

When the scandal occurred, I was asked to serve on the new Ethics Committee as United Way worked to rebuild its credibility. We recruited some of the country's leading law schools, Wharton and Harvard, to advise us on doing ethics right. We learned that every organization should develop and annually review a Code of Ethics and a Conflicts of Interest policy. In fact, under IRS regulations boards must now, through either Bylaws or formal policy, adopt a Conflicts of Interest policy. While a Code of Ethics isn't required by law, it is a "best practice" and assures donors that people associated with the organization use their contributions to fulfill the mission, not enhance themselves.

BUT MOST IMPORTANT, we learned we must work to develop an ethical environment for staff and board members. That means conducting numerous discussions on people's perception of ethical behavior and conflicts of interest - maybe adding open discussions at most meetings.

What I also learned was that while each of us may think we are ethical and without conflict, others may see us differently. The reality is that both ethics and conflicts are perceptions, not absolutes. The only way to ensure that we all act ethically or that we are handling our conflicts of interest appropriately is to consistently ask those around

us to be honest in what they see. While this sounds simple, it is very, very hard for most of us to provide such candid advice to our friends or supervisors - it's even harder for us to accept. None of us wants to be called on unethical behavior or a conflict of interest. While it is not easy, it's what we must do to maintain the trust of those who depend on us to improve their lives - and those who provide the financial and volunteer support to fulfill our mission. Good leaders surround themselves with people who speak the truth, even if it is hard for all involved.

The law is clear - conflicts of interest should be avoided. However because of our "two degrees of separation" here in Alaska, we face potential conflicts every day. Add to that the limited number of Alaskans who are available to serve on boards, and conflicts can be very difficult to avoid. In our smaller communities, many residents are related by blood or marriage. It's almost inevitable that board members will find themselves making decisions that could benefit them or an immediate family member. Literally no way exists for some organizations to conduct business without conflicts. The answer, as I emphasized above, is to make decisions after open and transparent discussion - and to fully disclose conflicts when they exist.

The Foraker Group encourages everyone in the sector to assume responsibility for maintaining the public's trust. We do that by adopting policies and practices that promote a high standard of ethical behavior and especially by avoiding conflicts of interest. Only then can we be sure we truly serve our communities, not ourselves. We have examples of Conflicts of Interest policies and Codes of Ethics. We'll share them with any organization - just call 907-743-1200.

[\[ Back to Regular View \]](#)



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**Briefing for PWSRCAC Board of Directors – May 2023**

**INFORMATION ITEM**

**Sponsor:** POVTS Committee and Alan Sorum  
**Project number and name or topic:** Tanker Speed Reduction Operational Review

1. **Description of agenda item:** On numerous occasions during the past year and a half, Mr. Rick Steiner has requested that Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) endorse vessel – whale strike mitigation efforts by requesting the establishment of a Vessel Speed Reduction (VSR) for the TAPS tanker fleet and SERVS tug fleet operating within the Prince William Sound (PWS) and Gulf of Alaska.

In taking these requests for support under advisement, PWSRCAC Board President Robert Archibald and PWSRCAC Executive Director Donna Schantz requested that POVTS investigate the maritime operational impact of the proposed speed reductions on the TAPS fleet, and to subsequently produce recommendations pertaining to Mr. Steiner's requested actions of the Board.

2. **Why is this item important to PWSRCAC:** The mission of the Council is to promote environmentally safe operation of the Trans Alaska Pipeline System (TAPS) terminal and associated tankers. The Port Operations and Vessel Traffic Systems Committee (POVTS) supports this mission by advising the Board on matters related to the marine aspects of the TAPS operation. The effect of vessel speed on the safety of whales is an environmental operating condition of interest to the Council.

3. **Previous actions taken by the Board on this item:** None.

4. **Summary of policy, issues, support, or opposition:** None.

5. **Committee Recommendation:**

- A. The POVTS Committee recommends that PWSRCAC *should not* at this time send a letter to NOAA requesting the issuance of a rulemaking for a tanker VSR in PWS and Gulf of Alaska.
- B. The POVTS Committee recommends that the PWSRCAC *should not* at this time send a letter to all PWS tanker owners/charterers requesting that, as NOAA considers the proposed rulemaking, they voluntarily adopt an interim VSR as proposed.
- C. The POVTS Committee recommends that the PWSRCAC *should* continue to monitor statements made, or actions taken by NOAA, PWS tanker owners/operators/charterers, and other interested parties concerning vessel – whale interaction in PWS and VSR rulemaking.
- D. The POVTS Committee recommends that the PWSRCAC *should* be prepared to comment, as is appropriate and timely, on statements made, or actions taken

## POVTS Tanker Speed Reduction Operational Review 4-11

by NOAA, PWS tanker owners/operators/charterers, and other interested parties concerning vessel – whale interaction in PWS and VSR rulemaking.

6. **Relationship to LRP and Budget:** None.
7. **Action Requested of the Board of Directors:** This is an informational item from the POVTS Committee presented by the request of the Board.
8. **Alternatives:** None.
9. **Attachments:** None.



# PRINCE WILLIAM SOUND

## REGIONAL CITIZENS' ADVISORY COUNCIL

May 2023  
**Status Report**  
 As of March 20, 2023

### 3100 - Public Information Program

**Objectives:** Inform general public, member entities, and agency and industry partners of PWSRCAC projects. Support legal requirements for ongoing updates to the public.

**Accomplishments since last report:** Staff continues to inform the general public and others about PWSRCAC's projects and mission through publications and online presence.

### 3200 - The Observer

**The Observer:** The Council's newsletter, *The Observer*, is produced three times per year in both print and email format. Individual articles are posted to the Council's website. The article archive is available here: [www.tinyurl.com/ObserverArchive](http://www.tinyurl.com/ObserverArchive).

### 3300 - Annual Report

**Objectives:** Prepare and publish PWSRCAC's Annual Report each year to inform the general public, member entities, and agency and industry partners of PWSRCAC projects and activities; and support legal requirements for ongoing updates to the public.

**Accomplishments since last report:** Work to create the content and design for the 2021-2022 report was completed. The report has been posted to the Council's website and printed copies have been distributed.

### 3410 - Fishing Vessel Program Community Outreach

**Objectives:** For bringing the realities of oil spill response tactics, equipment, and planning to life for citizens within the Exxon Valdez oil spill region communities, the fishing vessel community outreach program is a perfect venue. Each fall and spring SERVS holds its fishing vessel program training in the following communities: Cordova, Valdez, Whittier, Seward, Homer, and Kodiak. The on-water portion of the training, in partnership with Alyeska/SERVS, shows real-time capabilities of oil spill prevention and response equipment and tactics. This project contracts a local tour boat that will allow interested students, members of the public, and media to observe and learn about oil spill prevention and response.

**Accomplishments since last report:** The spring 2023 tour will be held in Valdez, AK on Wednesday, May 3<sup>rd</sup>, traveling through Port Valdez to observe an operational readiness exercise. Staff from PWSRCAC and Alyeska will present to the community members and PWSRCAC members on board.

### 3500 - Community Outreach Program

**Objectives:** Increase awareness of PWSRCAC and increase communications with member organizations and communities in the Exxon Valdez oil spill region.

**Accomplishments since last report:**

- **January 20** – PWSRCAC 101, New Orleans Regional Planning Commission – Emergency Preparedness Partnership, via Zoom to New Orleans, LA
  - Maia spoke to members of the Partnership, which exists to leverage public and private sector resources to support emergency management in Southeast Louisiana and South Mississippi.
- **January 23** – Former PWSRCAC intern Mia Siebenmorgen Cresswell was awarded the Ocean Youth Award, part of the 2023 Ocean Leadership Awards from the Alaska Sealife Center following a nomination put forward by PWSRCAC.
- **February 6-10** - Alaska Forum on the Environment (AFE), Anchorage, AK
  - Maia, IEC member Kate Morse, POVTS member Max Mitchell and staff member Jaina Willahan hosted the PWSRCAC booth to disseminate information about the Council and its mission and hand out PWSRCAC giveaway items. ~200 of people stopped by the booth.
  - As part of the Oil Spill track, Alan Sorum and Peter Soles (Glosten) presented a session titled “Throwing a Lifeline to Oil Tankers: New Technology for Emergency Towing,” including showing the Council’s [summary video](#).
  - The summary video was also shown during the AFE Film Festival session.
- **February 16** - PWSRCAC 101, Prince William Sound College, Valdez, AK
  - Maia presented to the three students and one staff involved in the ongoing Youth Involvement project titled “Environmental Undergraduate Research Experience.”
- **March 3-5** – Alaska Tsunami Ocean Sciences Bowl, Seward, AK
  - Maia and Jim Herbert served as competition officials for the annual quiz bowl event hosting high school teams from around the state including several from the EVOS region.
- **March 16-18** – ComFish Alaska, Kodiak, AK
  - Maia and Kodiak-based volunteers hosted the Council’s booth at this expo event.

Maia also attended the Alaska Natural Resources and Outdoor Education symposium on February 24<sup>th</sup> in Anchorage to hear talks and network with other environmental educators in the region.

### 3530 – Youth Involvement

**Objectives:** Select proposals for youth activities, in collaboration with partner agencies and organizations throughout the Exxon Valdez oil spill region. Coordinate activities to facilitate hands-on learning about topics related to the Council’s mission. Where appropriate and feasible, participate in mission-relevant youth activities.

**Accomplishments since last report:** The Information and Education committee accepted six proposals, utilizing the remainder of the FY2023 Youth Involvement contracting funds. These projects are in the contracting process with work beginning in March and concluding in September. One



contract is currently underway with the PWS College: Environmental Undergraduate Research Experience for \$4,896 and will wrap up June 30, 2023.

A revision of the Youth Involvement Request for Proposals (RFP) is underway with the intention of completing an update before the RFP is next released in April 2023.

### 3600 – Public Communications Program

**Objectives:** This program disseminates information and increases awareness through the Observer newsletter and the Council's online presence. This program helps publicize information generated from the Council's technical committee projects. Project results and information will be disseminated in a format that is easily understood by the general public.

**Accomplishments since last report:** The Public Communications Project Manager attended the Nonprofit Technology Conference in April. Agenda: [www.nten.org/ntc/](http://www.nten.org/ntc/) This event was held in Denver. Please contact Amanda Johnson for more information about this conference. Staff has begun preparing the booklet *Stories of a Citizens' Council* for a reprint.

### 3610 – Web Best Available Technology

**Objectives:** This project helps ensure the Council's websites and web presence uses the best and most up-to-date technology available by funding new features, repairs, and upgrades to the Council's websites. This includes regular maintenance and technical upgrades as well as upgrades to such aspects as user experience and branding.

**Current projects:** Staff is implementing security upgrades and preparing for a technical upgrade.

**Website data:** Website usage for [www.pwsrcc.org](http://www.pwsrcc.org) is tracked through Google Analytics for information such as numbers of visitors, location of visitors, how visitors found the site, which pages are visited most often, how much time is spent on particular pages, whether visitors were engaged enough to visit more than one page and much more.

#### Hot topics from 12/15/2022 to 3/15/2023 (other than home page)

Sorted by number of visits:

1. Now hiring: Terminal Operation Project Manager
2. Columbia Glacier
3. Personal Stories of Exxon Valdez disaster (Project Jukebox interviews and The Spill)
4. Staff/Board of Directors/Volunteers/About the Council
5. Requests for Proposals

Sorted by time spent on page:

1. Dismantling, Removal, and Restoration Fund
2. Guide for dealing with an oil spill
3. Fire protection systems at the terminal
4. Contingency Plans
5. Tanker Escort Zones

Sorted by engagement (visited more than one page):

1. Dispersants Research/New Board position

2. Environmental Monitoring
3. Oil Spill Prevention Planning
4. LTEMP
5. Terminal Operations

Please contact [Project Manager Amanda Johnson](#) if you would like more details.

### 3903 – Youth Internship

**Objectives:** Coordinate with regional secondary and/or higher education institutions to recruit students for internships, coordinate with other committees to help support students’ education goals while meeting appropriate PWSRCAC project needs.

**Accomplishments since last report:** Staff has determined that there is not capacity this year for Maia to hire and supervise an intern as she learns her role. Other staff have not proposed an internship project at this time. The internship project is moving through the LRP process for fiscal year 2024.

### 5000 – Terminal Operations Program

**Objectives:** The goal of the Terminal Operations and Environmental Monitoring (TOEM) Program is to prevent hazardous liquid spills and minimize the actual and potential environmental impacts associated with the operation and maintenance of the Valdez Marine Terminal.

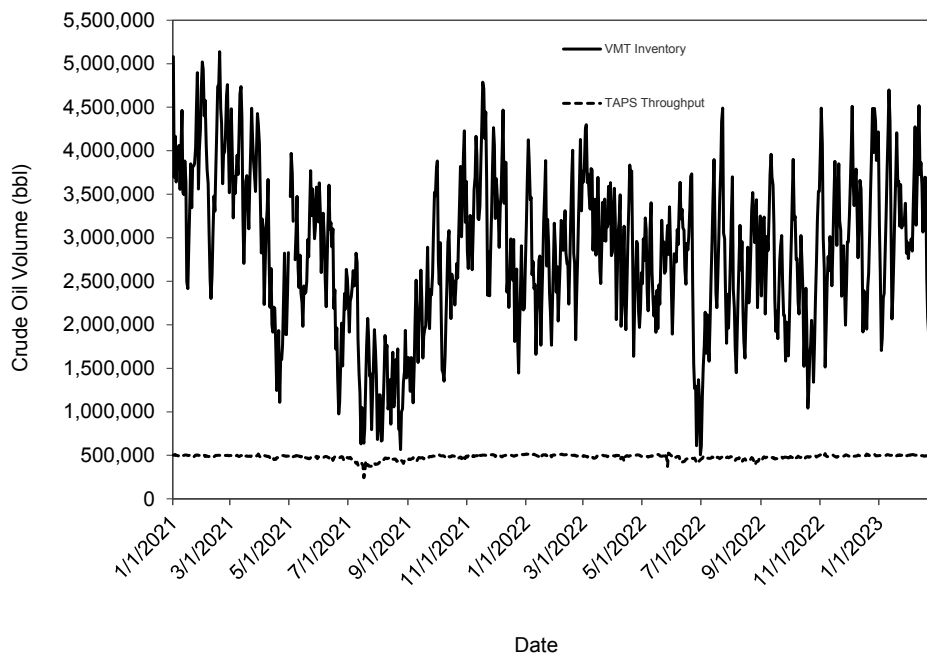
**Accomplishments since last report:**

- **2023 VMT Projects and Maintenance:** Council, state and federal regulators received a comprehensive briefing from Alyeska on 2/23/23 regarding the planned projects and maintenance at the VMT for the upcoming year.
- **Tank Vent Damage and Tank 93 Recommendations Status:** During the March 1, 2023 TOEM Committee meeting Alyeska staff updated the Council on items related to the tank vent damage issue, including changes to the VMT’s snow removal plan and the status of Alyeska’s work to identify engineered ways to prevent vent damage in the future (e.g. snow splitters). Alyeska staff also shared their initial thoughts regarding the Council’s recommendations pertaining to ballast water Tank 93, stating they agreed with one of them and disagreed with the other (see project #5081 below for more information).
- **Outstanding Alyeska responses to Council Recommendations and Information Requests:** The Council is waiting for responses from Alyeska regarding multiple information requests and recommendations related to a number of TOEM projects. Some of the requested information is needed to make progress on current TOEM projects that are being delayed without the information. Council staff met with Alyeska staff on 2/22/23 to discuss the status of fulfilling all current information and recommendations requests. On 3/20/23 Alyeska provided some of the requested information and a response to recommendations from the Council pertaining to ballast water storage Tank 93. However, none of the received information will help make significant progress on any current TOEM projects.

**Attachments:** Graphs depicting a variety of data related to the operation and environmental impacts of the Valdez Marine Terminal.

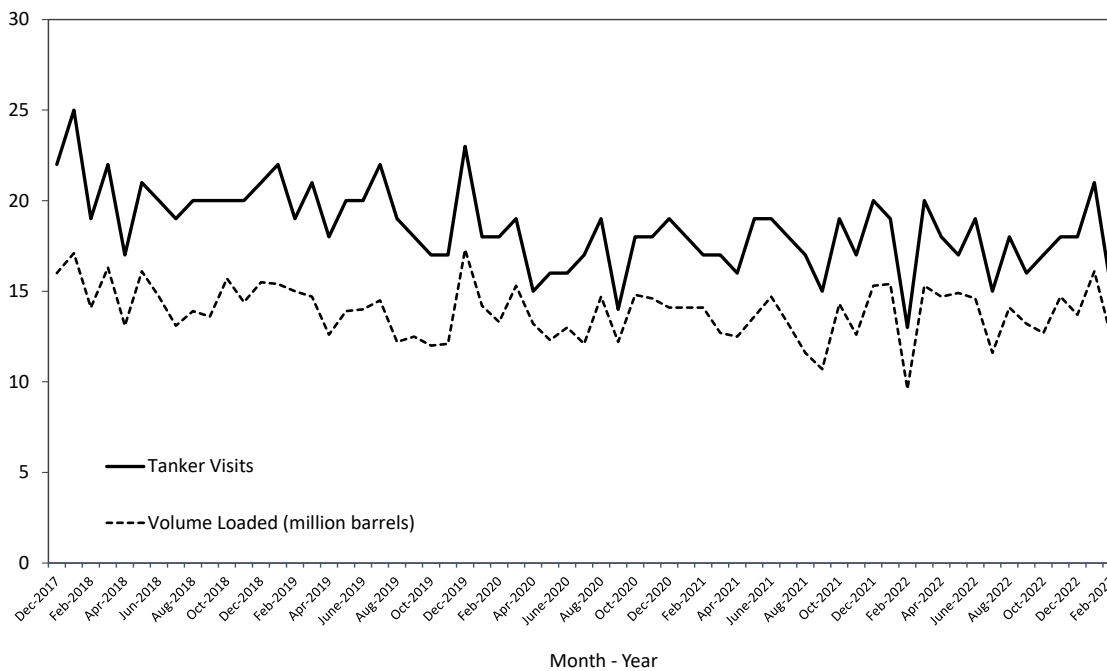
### Daily Oil Inventory at the Valdez Marine Terminal and Trans-Alaska Pipeline Throughput

(Source: Alaska Department of Revenue - Tax Division, <http://tax.alaska.gov/programs/oil/production.aspx>)



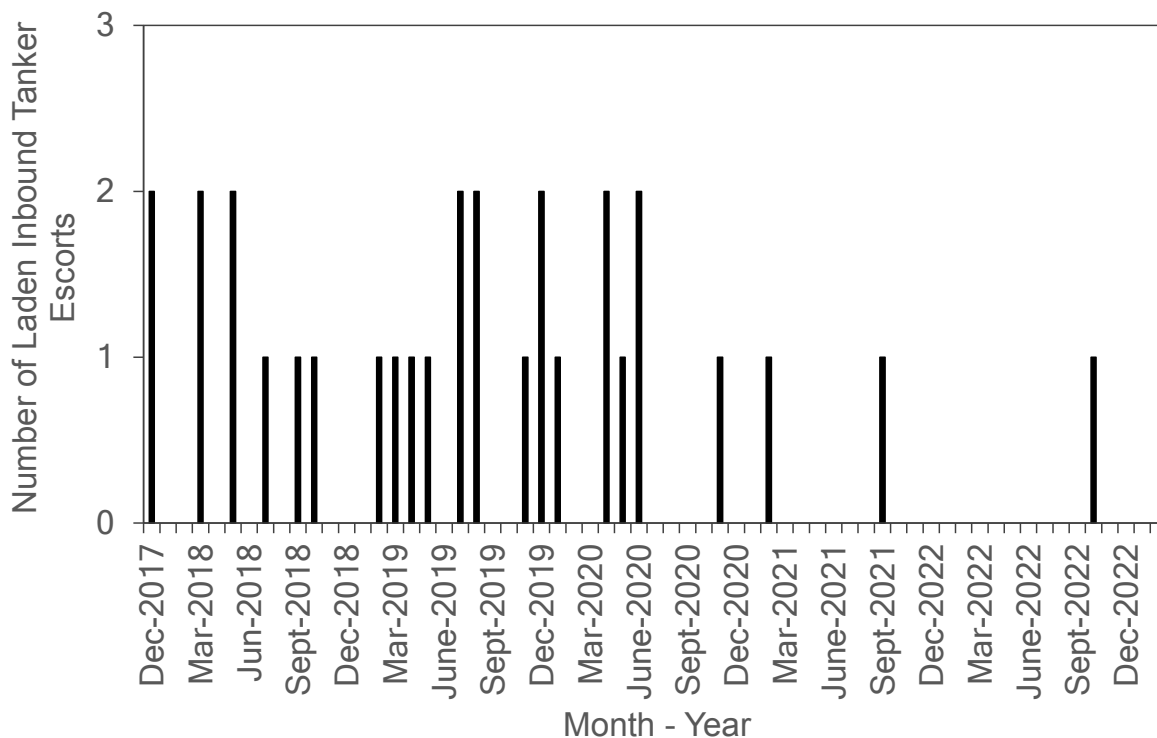
### Number of tanker visits and crude oil volume loaded onto ships from VMT

(Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date).



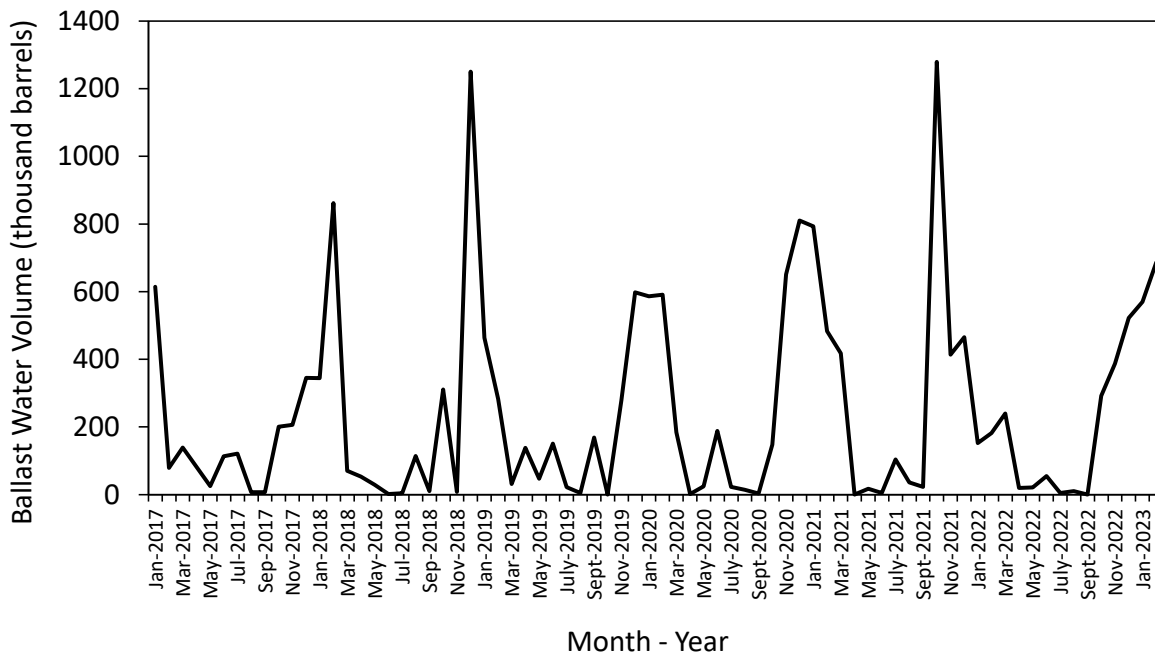
**Inbound laden tanker escorts to VMT**

(Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date)



**Monthly ballast water deliveries to Ballast Water Treatment Facility from tanker ships**

(Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date.)



**5040 - Valdez Marine Terminal Spill Prevention Plan Review**

**Objectives:** The goal of this project is to minimize the risk of hydrocarbon spills from the Valdez Marine Terminal through review of Alyeska’s Oil Spill Prevention Plan documentation and implementation.

**Accomplishments since last report:** This project was deferred in FY 2023 due to lack of available funds.

#### 5053 – System Integrity Review

**Objectives:** This project was developed to review and assess information provided to PWSRCAC by concerned Alyeska employees related to system integrity and safety culture issues at the Valdez Marine Terminal. Objectives of this effort include: validating any system integrity or safety issues in a manner that leads to the correction of such issues; helping to protect Alaska, its oil production capability, and livelihoods, while protecting the individuals involved; and providing advice and recommendations to Alyeska with which Alyeska can remediate any identified issues.

**Accomplishments since last report:** Billie Garde of Clifford & Garde was retained to review and validate any system integrity or safety culture issues provided to PWSRCAC by concerned Alyeska employees. Ms. Garde presented her draft findings to the Board at its December 20, 2022 special Board meeting. Then, on March 16, 2023, Ms. Garde and Executive Director Schantz, President Archibald and Vice President Bauer met with members of Alyeska’s Executive Team to review and discuss the draft report in detail. It is expected that the Board of Directors will accept the final report at its April 14, 2023 special Board meeting. After that time, the report will then will be released to the Alaska Congressional Delegation, regulators, and the public

#### 5056 – Tank 8 Internal Inspection Review

**Objectives:** The FY2021 goal of this project was to review the records and procedures used to maintain the integrity of Tank 8, in order to ensure the risk of a spill from this large oil storage tank are minimized. The FY2022 goal of this project is to ensure that the design of Tank 8’s new floor and cathodic protection system (scheduled for installment in 2023) are aligned with industry best practices and designed to protect the tank bottom for the life of the structure.

**Accomplishments since last report:** On October 25, 2022 the Council sent Alyeska a letter formally transmitting the Taku Engineering, Tank 8 report and listing eight recommendations stemming from the report, to which the Council requested “a written response from Alyeska describing why Alyeska will or will not implement these recommendations partially or in full.” Alyeska has not provided a written response to those recommendations.

During the January 2023 Board meeting, Alyeska staff informed the Council that Tank 8 will be taken out of service in 2023 and the plan to install a new floor and CP system in the tank is on hold until the owner companies make a decision regarding that work, and returning that tank to service.

#### 5081 – Crude Oil Tank 7 and Ballast Water Tank 94 Maintenance Review

**Objectives:** This project would entail performing a technical review of the maintenance of crude oil storage Tank 7 and ballast water storage Tank 94 at the Valdez Marine Terminal. Both Tank 7 and Tank 94 underwent comprehensive internal inspections in 2021. The last time Tank 7 underwent a similar internal inspection was in 2008, and Tank 94’s last internal inspection occurred in 2012. The 2021 internal inspections of both tanks will result in a large amount of new information pertaining to the past, current, and future maintenance of each storage tank. Additionally, since their last internal inspections were completed back in 2008 and 2012, Alyeska has gathered and maintained other information, such as cathodic protection system testing records and external inspection results

pertinent to the maintenance of Tanks 7 and 94. The new information generated from the 2021 internal inspections and the other, older information must all be considered to continue to safely maintain each of these tanks. This project is necessary to ensure that Alyeska is using industry best practices and considering all the pertinent information in the decisions they make to safely maintain both tanks, now and in the future.

**Accomplishments since last report:** Progress on these FY 2022 and 2023 projects has stalled because of delays in receiving information from Alyeska – this situation is largely the same as it was during the last report. Tank 2, 7, and 94 are all back in service now, and the information the Council needs to complete these projects should be available. The Council first requested the Tank 2 information on 3/2/2023 and the Tank 7 and 94 information on 10/7/2021. Alyeska staff have reported the following reasons for delayed responses to these requests including: the COVID-19 pandemic, time for legal review, lack of available staffing, and the need to dedicate staffing to regulatory and legal issues related to the March 2022 tank vent damage problems.

On January 4, 2023 the Council sent Alyeska a letter with a list of two recommendations, a request for a written response, and a memorandum by Taku Engineering pertaining to ballast water storage Tank 93. The two Council recommendations were:

- Upgrade the Tank 93 cathodic protection system, by placing two dedicated Anodeflex loops under the new annular plate, during the annular ring replacement in 2023.
- Install an annular plate drip ring on Tank 93, such has been done recently for Tank 94.

On 3/20/2023 Alyeska provided a written response stating that “An annular plate drip ring will be installed on Tank 93. The cathodic protection system will not be modified. The existing CP system meets applicable CP requirements.”

During their March 1, 2023 meeting, the TOEM Committee reviewed and discussed a technical memorandum titled “Tank 2 Site Visit” by Taku Engineering. The committee passed the following action regarding the memo “Recommend that the Board accept the memo as final, make it publicly available, and promote its findings and conclusions to Alyeska, state and federal regulators.”

#### 5640 – ANS Crude Oil Properties

**Objectives:** This project entails analyzing the physical and chemical properties of Alaska North Slope crude oil and interpreting how those properties would impact the effectiveness of oil spill response measures including mechanical recovery, in-situ burning, and dispersants.

**Accomplishments since last report:** During their January 2023 regular meeting, the Scientific Advisory Committee reviewed a draft report by Dr. Fingas and passed the following action “Accept the Review of ANS Oil Properties Report with minor revisions.” Dr. Fingas will provide the Board with a presentation summarizing the key findings of his report during the May 2023 meeting.

#### 6000 – Oil Spill Response Program

**Objectives:** Through this program, PWSRCAC develops positions and recommendations on oil spill response technologies; reviews state and federal contingency plans (C-Plans) and plan-related issues; promotes compliance, enforcement, and funding of existing environmental regulations; and promotes the incorporation of local knowledge of sensitive areas into contingency planning.

**Accomplishments since the last report:**

**Alaska Regional Response Team (ARRT):** General information on the ARRT can be found [HERE](#), and meeting summaries and presentations can be found [HERE](#).

ARRT March 2023 meeting highlights:

- Corexit 9500 will no longer be manufactured; stockpiles still available
- USCG is looking at restructuring regional and area contingency plans
- Following up on the White House Memo dated January 26, 2021 on tribal relations, ARRT will be reviewing guidance on interacting with tribes
- Cultural Resources Committee: Charter signed, reviewing Alaska Implementation Guidelines
- Wildlife Protection Committee: working on administrative updates; one-stop-shop for wildlife protection guidelines [HERE](#); finalizing Pribilof Islands Wildlife Protection Guidelines
- Science and Technology Committee: Catherine Berg presented on remote sensing of oil in ice; the report should be available summer 2023; a video on Unmanned Aerial System (UAS) and remote sensing technology for oil spill response in arctic waters is available [HERE](#).
- Statewide Planning Committee: monthly meetings; working on quarterly newsletters
- Regional Stakeholder Committee (RSC) Task Force: work continues on job aids for a Liaison Officer and RSC members
- Prince William Sound Area Contingency Plan signed January 2023; PWS Area Committee meeting scheduled for April 18, 2023 in Cordova
- Arctic and Western Alaska Area Contingency Plan signed January 2023; added section on intentional wellhead ignition; future focus on in-situ burning on pre-assessed areas, risk assessment, marine firefighting and salvage; developing risk assessment methodology for statewide applications
- Alaska Inland Area Contingency Plan public review expected summer 2023; working on in-situ burning decision making checklist

**Outstanding Questions or Issues:**

**ADEC Public Review of updates to 18 AAC Chapter 75:** Changes to Article 4 of 18 AAC Chapter 75, issued on January 6, 2023, went into effect on February 5, 2023.

ADEC issued regulatory changes to 18 AAC 75 on January 6, 2023. Information on these changes can be viewed on ADEC's website [HERE](#). Some of the changes to the regulations include:

- Requiring one operations-based exercise during each five-year plan cycle and limits additional exercises to not more than one additional operations-based exercise in each 12-month period
- Eliminated a best available technology conference for prevention and response equipment
- Removal of references to regional citizens advisory councils as named reviewers
- Consolidation of sections on plan contents and plan approval criteria into new section
- Adopted formula for calculating oil recovery capacity of equipment using 20% of manufacturer's rated throughput capacity unless another rate is appropriate
- Removed requirement that contingency plans show compliance with other state and federal training programs

**BP-Hilcorp Transaction:** On December 14, 2020, the Regulatory Commission of Alaska (RCA) issued an Order Granting Applications Subject to Conditions regarding the transfer of TAPS assets (including the Valdez Marine Terminal) from BP Pipelines to Harvest Alaska. PWSRCAC plans to submit an amicus curiae brief in support of the City of Valdez appeal to the RCA's March and December 2020 Orders allowing Hilcorp/Harvest Alaska to keep financial information confidential and granting the transfer of BP's assets to Hilcorp. *This case is still pending in the Alaska Supreme Court.*

## 6510 – Contingency Planning Project

**Objectives:** The purpose of this project is to monitor, review and comment on state and federal contingency plans (c-plans) for the Valdez Marine Terminal (VMT) and the Trans-Alaska Pipeline System (TAPS) tankers that transit Prince William Sound. Reviewing c-plans is a major task for PWSRCAC as outlined in both the PWSRCAC/Alyeska contract and OPA 90.

The Prince William Sound Tanker Oil Discharge Prevention and Contingency Plan (PWS Tanker C-Plan) and associated vessel response plans for Alaska Tanker Company, Andeavor (subsidiary of Marathon Petroleum), Crowley Alaska Tankers, Hilcorp North Slope, and Polar Tankers, was renewed on January 31, 2022 and will expire in 2027. Alyeska Pipeline Service Company (Alyeska) Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan (VMT C-Plan) was renewed on November 15, 2019 and will expire in 2024.

### **Accomplishments since last report:**

**Crowley Alaska Tankers:** Crowley Alaska Tankers applied to ADEC to charter a foreign flagged vessel in February 2023. ADEC approved this as a minor amendment to Crowley’s tank vessel plan. The SUMMIT SPIRIT was approved for the operating period of March 1, 2023 to March 31, 2023.

### **Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan (VMT C-Plan):**

#### **Secondary Containment Liner:**

- Dr. Craig Benson, secondary container liner expert who presented his research at the January 2023 PWSRCAC Board meeting, also presented his research to APSC staff on March 16, 2023. Dr. Benson’s research focused on methods to evaluate liner integrity and determining how much of the liner should be tested to be “statistically significant.”
- In following up on Dr. Benson’s presentation, APSC has begun addressing Dr. Benson’s recommendations. Initial work by the APSC team suggests that Electrical Leak Location (ELL) is the most viable option to determine integrity of the secondary containment liner and agree that a pilot study in the West Tank Farm is a good idea.
- As of the VMT Coordination meeting on February 23, APSC is planning to do a pilot study on ELL at the West Tank Farm in 2024.

**VMT Coordination Workgroup meeting:** The VMT Coordination Workgroup met on February 23, 2023. Highlights of the meeting include:

- SERVS updates: OSRB5 is scheduled to arrive in April; Allison Creek is expected to be replaced in the first quarter of 2024; SERVS is testing a new style of boom (Eco-Speed).
- VMT updates::
  - Ballast water system related work: maintenance for Tanks 93 and 94 and ballast water piping; 90’s tanks retaining wall; maintenance activities on DAF cell 6
- Oil movement and storage work:
  - Tank 8 will be taken out of service for now and cleaned; the cathodic protection system and floor will not be replaced in 2023; decisions still being made on Tank 8 work and returning it to service.
  - Drain piping of West Metering sump will be replaced
  - In-line inspection will be done on the Main A and B headers from East to West Metering
  - Tank 2 is back in service storing oil
  - Power vapor: inspection of power house stack; working on boilers’ continuing work with Copper Valley Electric
- Marine:
  - Bird deterrent work continues
  - Systems integrity work for marine structure coatings, inspection, repair



- Improvements to Berth 4 operator's station
- Snow removal:
  - Alyeska is closely monitoring the Sugarloaf SNOWTEL weather station to help manage snow loads
  - As of February 23, 2023, the crude oil storage tanks at the East Tank Farm had been cleared four times
- VMT C-Plan status:
  - APSC expects to submit a plan renewal in the summer of 2023
- APSC did a demonstration of their Geographic Resource Database which is mostly marine based.

### 6512 - VMT Secondary Containment Liner Integrity

**Objectives:** The goal of this project is to ensure that the secondary containment liner at the Valdez Marine Terminal will adequately protect the environment in the event of an oil spill.

**Accomplishments since last report:** On February 21, 2023 the Council provided Alyeska with a letter listing four recommendations, a request for a written response, and the final report by Dr. Craig Benson. The four recommendations were:

- Electrical leak location and electrical resistance tomography surveys are recommended for evaluating the CBA liner at Valdez Marine Terminal.
- A pilot study should be conducted in the out-of-service West Tank Farm area to evaluate the electrical leak location and electrical resistance tomography methodologies, especially the ability of both methods to detect defects with the thick earthen layer overlying the CBA liner.
- If the objective of liner testing at the Valdez Marine Terminal is to identify all liner defects (holes, cuts, cracks, or other features that fully penetrate the CBA liner and provide a pathway for liquid flow), then essentially the entire area of the liner must be evaluated.
- If the objective is to estimate the total number of defects (not location or size) by extrapolating outcomes obtained by evaluating a fraction of the area, at least 20% of the liner area should be assessed.

During a VMT Coordination Workgroup meeting on February 23, 2023 Alyeska staff stated they had received the letter and report and are planning to implement the first two recommendations. Alyeska staff indicated they are planning to conduct a pilot study in the West Tank Farm in 2024 to evaluate the effectiveness of using the electrical leak location method to test the buried liner.

On March 16, 2023, Dr. Benson and Council staff met (via videoconference) with Alyeska engineering staff and contractors to summarize the findings and recommendations of Benson's report and to field questions from those in attendance.

### 6530 - Weather Data / Sea Currents Project

**Objectives:** This project studies wind, water current, and other environmental factors near the Valdez Marine Terminal, in Prince William Sound, and in the Gulf of Alaska. Weather conditions affect the safe navigation of vessels and aids the ability to prevent, respond to, contain, and clean up an oil spill. Accurate weather data for the region supports research and decision making in areas like oil spill response, traffic management, vessel performance specification, and contingency planning.

**Accomplishments since last report:** The weather station at Cape St Elias is showing its age and we will plan to update it in the spring of 2023. The CTD sensor set up at the Valdez tide gauge station is working well.

Our two weather stations in Port Valdez are operating normally and we have had no maintenance issues with them. The camera at Nuchek is out of service and needs to be removed for service.

#### 6531 – Port Valdez Weather Buoys

**Objectives:** This project originally assembled and deployed, and continues to maintain, two buoys which measure ocean currents and common weather parameters in Port Valdez. The first buoy is installed near Jackson Point [61.0910°N 146.3811°W] in the vicinity of the Valdez Marine Terminal (VMT). The second buoy is installed at the Valdez Duck Flats [61.1201°N | 146.2914°W]. The Prince William Sound Science Center (PWSSC) partners with the Council to facilitate this project.

The Oil Pollution Act of 1990 requires the Council to study wind and water currents and other environmental factors in the vicinity of the terminal facilities which may affect the ability to prevent, respond to, contain, and clean up an oil spill.

The Council's Board of Directors has long advocated that robust weather monitoring systems be installed in the vicinity of the VMT. This includes proposals to install ultrasonic anemometers at the loading berths and a weather station at the VMT. The Council's Board passed a resolution expressly requesting a weather station be employed at the terminal on January 22, 2016.

Weather is a significant factor in the management of safe crude oil transportation through Prince William Sound. Some of these concerns include marine safety, tanker escort operations, oil spill contingency planning, containment boom design, and safe loading of oil tankers.

**Accomplishments since last report:** Buoys are currently reporting correctly and on station. In January, the VMT buoy ran out of power. Both buoys were brought into harbor and recharged. We are working with JOA Surveys to improve the charging system used on the buoys. As of the beginning of March, both buoys are now getting adequate light and keeping their batteries charged.

#### 6536 – Port Valdez Weather Buoy Data Analysis

**Objectives:** In 2019, PWSRCAC was able to install two weather buoys in Port Valdez, one in the vicinity of the Valdez Marine Terminal and the other near the Valdez Duck Flats. The buoys are expected to collect weather data for at least five years. This series of projects will take the data collected in each of the five years and perform an analysis to determine any weather trends throughout the year and seasonally. The analysis includes current and wind direction and speed information, wave direction and heights, and other pertinent information that can be obtained from the weather data.

**Accomplishments since last report:** PWSRCAC is in the process of contracting with the Prince William Sound Science Center to analyze the data from 2022. The Project Team met on March 15, 2023, with Dr. Rob Campbell to discuss the project and get it underway for this year.

#### 6537 – Copper River Weather Station Project

**Objectives:** Deploy a weather station on the Copper River Delta to better capture outflow wind events.

**Accomplishments since last report:** The Forest Service has issued a land use permit for the weather station and a purchase order was issued to the Science Center to help assemble and install the weather station. Most of the required equipment has been purchased and is currently being shipped to the PWS Science Center in Cordova. We hope to begin installation of the weather station around the end of May.

#### 6560 – Peer Listener Training

**Objectives:** Update the Council’s Peer Listener program, which was created and implemented shortly after the Exxon Valdez oil spill to promote community resiliency through a peer-to-peer support network. The update will include assessing the current program, reviewing similar programs nationwide, and revising the Peer Listener Training manual and delivery methods according to contemporary best practices.

**Accomplishments since last report:** A request for proposals for Phase 2 updates to the Peer Listener Training Manual was advertised early this year. A contractor was chosen by the project team and supported by SAC. A draft revised manual is anticipated to be completed this spring and will be reviewed by SAC.

#### 7000 – Oil Spill Response Operations Program

**Objective:** This program encompasses monitoring and reporting on the activities related to the operational readiness of the oil spill response personnel, equipment, and organization of the TAPS shipping industry. The program also encompasses monitoring actual oil spill incidents within our region and evaluation of overall response readiness. Additionally, the program includes the planning and implementation of PWSRCAC’s Incident Response Plan.

**Accomplishments since last report:** The **OSPR Committee** met on February 17. As the featured topic, Mike Donnellan with ADEC discussed the statewide effort to convert GRS site information into a GIS-based format. This work has been ongoing for years and while Robida has kept OSPR informed on progress, the committee appreciated a deeper dive by Donnellan who is the point person with ADEC managing this conversion.

The ARRT’s **Regional Stakeholder Committee Task Force** continues to meet on a regular basis. Robida presented on this topic at the January Board meeting, noting that the job aid being developed for the Liaison officer contains language that’s a bit more flexible versus currently approved Area Plan language. In some aspects, this flexibility is fine and warranted, and in other places, it’s a bit grey as to whether this more flexible language will result in a less robust RSC process. Ultimately, it will be incident specific events and response leadership that drive the RSC process, and the job aid does contain enough information to provide for a robust process. For that reason, PWSRCAC has been satisfied with language in the liaison job aid. Once the liaison-specific job aid is finished, attention will turn to the RSC member job aid. During the upcoming mid-May Hilcorp shipper exercise, the RSC process will be implemented, with the focus being the required steps to get the process initiated and prepare and invite RSC participants. The draft liaison job aid will be used during this exercise. The next task force meeting is April 28, 2023.

Staff continues to participate in **VMT Contingency Plan Coordination Workgroup meetings**, with the most recent meeting being held on February 23. Topics for this meeting included a SERVS operational and equipment update, a discussion about upcoming summer maintenance projects at the VMT,

discussion on secondary containment integrity testing being driven by a condition of plan approval, an update on Alyeska's Geographic Resource Database, and various organizational updates from those present at the meeting. More detailed information on these quarterly meetings is being shared with the OSPR and TOEM Committees.

The **Alaska Regional Response Team (ARRT)** met on March 8. Various area committees provided updates on their specific plans and happenings in their areas of interest, and there were status updates on the Pribilof Islands Wildlife Protection Guidelines, spill response exercise activity in the Bering Strait between the USA and Russia, the International Maritime Organization (IMO) risk assessment work being led by the Arctic and Western Alaska area committee, a potential change to Area Plan formatting, and a briefing on the recent National Response Team meeting in Portland.

Staff also continues to participate in different **Area Planning meetings and various related sub-committees**. The Inland Area Committee met on March 6. The Arctic and Western AK (AWA) admin sub-committee met on March 4. And finally, the GRS sub-committee under the AWA met on March 17.

The next PWS Area Committee meeting will be held in person, in Cordova, on April 18 so that attendees can participate in the Alyeska-led wildlife exercise and possibly view some of the SERVS fishing vessel training happening during this timeframe. Robida was asked to present on the **Copper River GRS** topic at this meeting. OSPR's FY2024 project idea to hire a contractor to facilitate a workgroup and build out Copper River and Delta Flats GRS's ranked 13 out of 23 project ideas in FY2024. Robida intends to speak to the Council's past project work of capturing this history via white paper, but mainly plant the seed that this future FY2024 project could potentially start up next fiscal cycle, and we'd need local participants to help in this endeavor.

By the time the Board meets in May, annual **SERVS spring FV training** will be completed. Staff members Robertson and Robida will have covered some of this training and associated operational readiness exercises. Robertson will have covered the Seward training along with Brooke Taylor and Maia Draper-Reich, and both Robertson and Robida will be in Whittier and Cordova for portions of those trainings. A portion of the Valdez training will likely be covered as well. The schedule for spring training is as follows:

3/31 - 4/02	Kodiak Fishing Vessel Training
4/5 - 4/8	Homer Fishing Vessel Training
4/11 - 4/12	Seward Fishing Vessel Training
4/15 - 4/17	Whittier Fishing Vessel Training w/ ORE
4/17	Non-Mechanical Exercise
4/19 - 4/26	Cordova Fishing Vessel Training w/ ORE
4/20	2023 VMT Wildlife Equipment Deployment - Cordova
4/23	IBR Facility Demonstration (Exercise)
4/29 - 5/3	Valdez Fishing Vessel Training w/ ORE

There are two **new barges** coming into PWS in the future. The barge *Mineral Creek*, which has served as the lightering and nearshore support barge, is being replaced by a barge that's very similar to the other four open-water OSR's in service. The new barge will be known as *OSRB-5*. This barge is currently under construction in Oregon and expected to be launched to water in February, and arrive in PWS in March. It will still take a bit of time to set other ancillary response gear on the barge, train crew, install one last generator on the barge in Valdez, and get full ADEC approval, so the barge won't be fully in service until sometime in May. Just like the *Mineral Creek*, the *OSRB-5* will have the large drop-down Yokohama fenders needed for ship-to-ship lightering and be able to support nearshore operations with mini barge offload stations.

The barge *Allison Creek*, used as additional storage for the *Valdez Star* vessel, is being replaced and a new barge will be constructed in Anacortes, WA. Delivery is estimate for March 2024.

There's been an uptick in deployments this spring and staff have observed the following **exercise and deployments** since the January Board meeting:

- 02/10/2023 OSRB deployment in Port Valdez
- 03/06/2023 Valdez Star Deployment in Port Valdez
- 03/16/2023 Alyeska IMT training event at the SERVS VEOC

### 7050 - Out of Region Equipment Survey

**Objective:** The project will identify "out-of-region" spill response equipment that's available to cascade into PWS and/or the Gulf of Alaska vicinity during a major oil spill. This is equipment that is called for via planning assumptions to support a large spill response effort and outfit nearshore recovery task forces beyond what is already available from the SERVS inventory. This project will document who owns this equipment, discuss the formal equipment sharing/purchase relationships that are already in place between the various PWS shippers and the greater worldwide Oil Spill Removal Organization (OSRO) community, as well as any governmental equipment sources such as the USCG or Navy Supervisor of Salvage (NAVSUPSALV). The project will also address timing and logistical information related to movement of such equipment.

**Accomplishments since last report:** The Board approved the report at its September 2022 meeting and the report was formally transmitted to the USCG MSU Valdez, U.S. EPA, ADEC, BLM, AK Dept. of Fish and Game, RPG, and Alyeska/SERVS. This project is complete.

### 7520 - Preparedness Monitoring

**Objectives:** PWSRCAC's Drill Monitoring program falls under a broader program called Oil Spill Response Operations. Objectives for the Drill Monitoring program are to promote oil spill response operational readiness within the EVOS region by observing, monitoring, and reporting on oil spill prevention and response drills, exercises, and training; to provide citizens, regulatory agencies, and responders (Alyeska and the shippers) with independent observations and recommendations to improve preparedness; and provide citizen oversight. Tasks to be completed include:

- Monitor and report on regular oil spill drills and training exercises at the VMT and throughout the Exxon Valdez oil spill region to citizens, the Board, industry, and regulatory agencies
- Provide quarterly recommendations to the PWSRCAC Board of Directors
- Keep PWSRCAC's standing committees (OSPR, TOEM, POVTS, IEC, and SAC) informed
- Produce an annual report on effectiveness and progress of the regularly monitored drills and exercises
- Continue developing and implementing staff training for drill monitoring

### Recent Exercises

#### **Open-Water OSRB Deployment - February 10, 2023**

SERVS conducted a OSRB deployment in Port Valdez on February 10.

#### **SERVS Valdez Wildlife Training - Oct 17-19, 2022**

SERVS annually conducts wildlife training to maintain the three-year training requirement for the vessel crews in its wildlife program. This year Cordova and Valdez hosted the training. PSWRCAC member Jeremy Robida attended the Valdez wildlife training.

**VMT IMT and Field Exercise – Oct 11-12, 2022**

Alyeska held their annual Incident Management Team (IMT) tabletop exercise with an equipment deployment on October 11th and 12th. The scenario was a response to an immediate 20,000 bbl. oil spill to water at Berth 4 that continued to spill until 59,000 bbls. were lost. There was a deployment of two of the VMT's self-propelled skimmers demonstrated on the 12<sup>th</sup> as part of the exercise.

**Upcoming Drills and Exercises**

VMT Oil Wildlife Exercise April 2023

ATC and Hilcorp Shipper's Exercise – May 2023

**8000 – Maritime Operations Program**

**Objectives:** This program reviews port organization, operations, incidents, and the adequacy and maintenance of the Coast Guard Vessel Traffic System, and coordinates with the Port Operations and Vessel Traffic Systems (POVTS) Committee. Major program components include participation with the Valdez Marine Safety Committee (VMSC), monitoring changes to the tanker escort system, reviewing Best Available Technology documents for the tanker escort system and the Vessel Emergency Response Plan (VERP), participating in monthly SERVS/PWSRCAC and ADEC/PWSRCAC communication meetings, and supporting maintenance for the NOAA weather stations.

**Accomplishments since last report:** The Project Manager has been researching and following IMO regulatory efforts to reduce greenhouse gases with the Chair of the POVTS Committee.

Maia Draper-Reich and Alan Sorum of staff and Peter Soles of Glostien made a presentation on the line throwing device trials at the Alaska Forum on the Environment meeting in February of 2023.

A working group has been formed to plan a workshop on tsunami science and vessel response strategies pending results of the long-range planning process.

Staff has been working with the POVTS Committee to evaluate Rick Steiner's whale strike reduction proposals.

Staff is researching inspection or certification protocols of bollards used by Alyeska at their facilities.

**8010 – Escort Tugboat Best Available Technology Assessment**

**Objectives:** This project proposes to assess current best practices and use of technology in the design of highly capable escort tugboats. Using the standards described in this process, a comparison will be made to vessels currently being used for this purpose in Prince William Sound.

**Accomplishments since last report:** This project was deferred in FY 2023.

**8300 - Sustainable Shipping; Phase I: Regulatory Mandate Review**

**Objectives:** This project, Phase I: Regulatory Mandate Review, will review and report on the evolution of regulatory requirements affecting the transition of ocean shipping, and tankers in particular, to a sustainable model. Providing technical advice to the Board on the development of more sustainable shipping will require that the POVTS Committee become aware of the developing regulatory climate,

follow the development of best technologies, and track the implementation efforts of the TAPS shippers and marine support contractors.

**Accomplishments since last report:** Nuka Research is working on this project. They have gotten some cooperation from the shippers on research for this project. A presentation is planned for the May Board meeting.

#### 8520 – Miscommunication in Maritime Contexts

**Objectives:** Seeking to identify and address various causes of miscommunication, the proposed project will provide a comprehensive perspective by collecting information on the linguistic, cultural, and pragmatic needs and practices of native and non-native English-speaking mariners in Prince William Sound. The proposed project would entail the first two of four phases.

**Accomplishments since last report:** A contract was completed with Sky Island Language Learning Research. The project is delayed due to contractor's schedule. This is a two year contract, so there will be time to catch up in the new fiscal year.

#### 9000 – Environmental Monitoring Program

**Objectives:** Coordinate projects developed and overseen by the Scientific Advisory Committee and obtain scientific knowledge and technical information about issues related to the actual and potential environmental impacts of the Valdez Marine Terminal and associated crude oil tankers. The notable tasks to be accomplished under this program are as follows:

- Project manager to attend at least one technical scientific conference.
- Plan and complete budgeted environmental monitoring and scientific research projects.
- Conduct PWSRCAC Science Night.

**Accomplishments since last report:** Projects managed under this program continue to be planned and executed successfully. The Project Manager has registered to attend and present a poster at the International Conference on Marine Bioinvasions in Baltimore, Maryland, May 16-18, 2023.

#### 9110 – Monitoring Spatial Variability of Marine Birds During Winter in PWS Tanker Escort Zone

**Objectives:** Provide up to date information on winter marine bird density and distribution throughout the Prince William Sound tanker transit zone, including under-surveyed areas such as the open waters and adjacent bays in and around Port Valdez, Valdez Arm, Tatitlek Narrows, Port Fidalgo, and Port Etches. The notable tasks to be accomplished under this project are as follows:

- Perform winter bird surveys in Prince William Sound for three consecutive years.
- Analyze data obtained during winter bird surveys and report the results of the analysis.
- Make winter bird survey maps readily available for use by spill response managers.

**Accomplishments since last report:** A contract was finalized with the Prince William Sound Science Center for the FY2023 surveys and data analysis. The surveys were completed successfully between March 2-7, 2023.

#### 9510 – Long-Term Environmental Monitoring Project

**Objectives:** Comprehensively monitor the actual and potential environmental impacts related to the Valdez Marine Terminal and associated crude oil tankers and provide the Council with information

about the presence and effects of hydrocarbons generated by the terminal facility and associated tankers. Here are the notable tasks to be accomplished under this project:

- Obtain environmental samples in Port Valdez: marine sediments, mussels, and passive sampling devices
- Analyze environmental samples
- Interpret and report results of sample analysis
- Present analytical findings to the PWSRCAC Board of Directors
- Maintain Environmental Monitoring Project plan

**Accomplishments since last report:** Planning for the 2023 LTEMP scope of work is underway. 2023 is an “expanded” LTEMP sampling year, where environmental samples are collected from not only Port Valdez, but additional monitoring stations in Prince William Sound and the Gulf of Alaska. The “expanded” scope is executed every five years. Cost estimates have been obtained from the two analytical laboratories, Alpha Analytical and Oregon State University. A cost estimate is pending from the scientific support contractor, Owl Ridge Natural Resource Consultants, who would interpret and report on the analytical results of the 2022 and 2023 samples. Two vessel transport contractors (Just Coz LLC and Kimberlin’s Water Taxi & Freight) have been selected through the request for proposals process. One more transport contractor needs to be identified for floatplane charter work to access remote mussel sampling locations.

Dr. Liz Bowen and collaborators have provided the Council with two reports pertaining to their chemical and genetic analyses on mussels obtained during the April 2020 oil spill from the Valdez Marine Terminal. One of the reports is an “executive summary” intended for the Board of Directors as the primary audience, while the second report is a full-length scientific report geared towards scientists. The Scientific Advisory Committee and Council staff have reviewed drafts of both reports and provided comments for the authors to consider implementing in final versions of the reports.

#### 9511 – Herring and Forage Fish Surveys

**Objectives:** Monitor schools of herring and other forage fish species to identify areas in Prince William Sound where these fish tend to concentrate. The notable tasks to be accomplished under this project are as follows:

- Conduct aerial surveys of forage fish in Prince William Sound for four consecutive years
- Analyze aerial survey data and report on the results
- Make aerial survey maps readily available for use by spill response managers

**Accomplishments since last report:** The final report and recommendations were presented to the Board at the January 2023 meeting.

#### 9512 – Determining Concentration and Composition of Oxygenated Hydrocarbons from the VMT

**Objectives:** Determine the types and amount of oxygenated hydrocarbons that are released from the Ballast Water Treatment Facility at the Valdez Marine Terminal. The notable tasks to be accomplished under this project are as follows:

- Collect water samples from the VMT Ballast Water Treatment Facility following discharge of oily ballast water by tankers.
- Analyze the samples to determine the chemical composition and concentration of oxygenated hydrocarbons.
- Interpret and report findings of the analysis and prepare the report for publication in a peer-reviewed journal.



- Produce recommendations on future research to understand the fate, transport, and toxicity of oxygenated hydrocarbons in the marine environment.

**Accomplishments since last report:** Twelve sample sets were collected, shipped, and delivered to the Contractor in New Orleans. Analysis is underway. Results and a draft report will be reviewed by the Scientific Advisory Committee this spring. The Contractor will be presenting this project at two upcoming scientific conferences – AMOP and the American Society for Mass Spectrometry Conference.

#### 9520 – Marine Invasive Species

**Objectives:** Understand and minimize the environmental impacts of invasive species potentially arriving in the PWSRCAC region from tanker ballast water and hull fouling. Here are the notable tasks to be accomplished under this project:

- Obtain plankton samples in Port Valdez at three sites: the small boat harbor, Valdez Container Terminal, and Valdez Marine Terminal
- Perform metagenetic analysis on plankton samples to identify variability in the plankton community between locations and through time, and identify any nonindigenous species
- Interpret and report results of plankton metagenetic analysis
- Conduct monitoring of invasive crab and tunicate species in Valdez, Cordova, and Kodiak

**Accomplishments since last report:** Recruitment for 2023 Marine Invasive Species Monitoring Interns in Cordova, Valdez, and Kodiak will begin this spring. Planning for the 2023 broadscale survey in PWS is underway in coordination with the Contractor. Settlement plates will be deployed in late June and retrieved for analysis in late September.

#### 9550 - Dispersants

**Objectives:** Review and potentially update the Council's 2006 dispersant use position statement. Develop supporting documentation to support staff and volunteers in communicating the position with regulators and incident responders.

**Accomplishments since last report:** The supporting materials to aid communication of the Council's updated position on chemical dispersants were presented to the Board at the January meeting. Dr. Merv Fingas of Spill Science updated the dispersants literature database with the latest peer-reviewed literature through 2022 and drafted a summary report. The report was presented to the Board Executive Committee in February.

#### 9643 – Subsistence Harvest Surveys

**Objectives:** Update subsistence harvest information for Prince William Sound communities by conducting household surveys, key respondent interviews, and mapping to inform a long-term dataset on community subsistence harvest practices and access.

**Accomplishments since last report:** Staff were notified by Board member Angela Totemoff, representing Tatitlek Corporation and Tatitlek IRA Council, that this project does not have support from Tatitlek Corporation, the Tatitlek IRA Council, the Chenega Corporation, and the Chenega IRA Council. Based on this lack of support, the communities of Tatitlek and Chenega will not be participating in the surveys at this time. The contract for this project has been terminated with the Alaska Department of Fish and Game.