



PRINCE WILLIAM SOUND

REGIONAL CITIZENS' ADVISORY COUNCIL

January 2023
Status Report
 As of December 8, 2022

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.

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: The 2021-2022 report was completed by staff and the contracted graphic designer. An electronic version was posted to the website and printed copies mailed to the distribution list. Extra printed copies are available for booth events and other needs throughout the year.

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: Staff will work on determining the community and date for the Spring 2023 tour based on SERVS training dates once they are set.

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:

- **September 20** Oil Spill in a Pan guest lessons at Seward Elementary School
 - 73 4th/5th grade students and four adults participated in the lessons.

- **September 21** Oil Spill in a Pan guest lessons at Seward Middle School
 - 86 7th/8th students and one adult participated in the lessons.
- **September 21** AVTEC [Maritime Bridge Simulator](#) Tour, Seward, AK
 - Volunteers and staff were welcomed by AVTEC staff and Alan Sorum to experience the tanker and tug bridge simulator rooms. ~18 attended.
- **October 12** Valdez Marine Terminal functional exercise, Valdez, AK
 - PWSRCAC staff participated as observers and evaluators.
- **October 13** Student Interviews about PWSRCAC, Gilson Middle School, Valdez, AK
 - PWSRCAC staff visited three classes of 7th grade reading and social studies students who were learning about the local economy. Maia Draper-Reich, Joe Lally, and Danielle Verna each visited one class to be interviewed. 51 students participated.
- **October 13** PWSRCAC 101, Prince William Sound College, Valdez, AK
 - Maia gave a 30-minute PWSRCAC 101 talk for students and staff in the Outdoor Leadership and Environmental Science programs. 11 people attended.
- **October 24** Invasive Species intern Audrey Bulow outreach talk, Prince William Sound College, Valdez, AK
 - Audrey chose to present to her class at PWS College including a summary of the internship and what she learned about invasive green crabs and tunicates, such as impacts, how they spread, and the monitoring she did.
 - PWSRCAC staff Danielle Verna attended.
- **November 1-3** Alaska Invasive Species Workshop, Anchorage, AK
 - Noah Schrof, Invasive Species intern based in Kodiak, presented online to a hybrid audience of ~90 at the workshop to share about his internship, updates on the monitoring work he's done, and what he learned.
 - Danielle Verna co-led a session on Invasive Species Legislation.
- **November 1** PWSRCAC 101 + current priorities, Arctic and Western Alaska Area Committee, Anchorage, AK
 - Maia and Jeremy Robida presented to an audience of 55 at this hybrid meeting during the committee's NGO day, where relevant NGOs got to share about their organization and work.
- **November 17-19** Pacific Marine Expo, Seattle, WA
 - Maia and POVTS member Max Mitchell hosted the PWSRCAC booth to disseminate information about the Council and its mission and hand out PWSRCAC giveaway items. ~180 of people stopped by the booth.
- **December 1** Science Night, Anchorage AK
 - ~70 Board members, volunteers, and staff attended the hybrid event to hear four presentations by scientists whose work relates to the mission and work of the Council.

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 received and reviewed nine project proposals. Final award announcements will be made by January 31, 2023. One contract is currently under way with the PWS College: Environmental Undergraduate Research Experience for \$4,896.

Four contractors completed their project’s final reporting requirements this fall:

- Teens Teaching Teens Copper River Watershed Project (CRWP):
13 students participated in the ten-day Copper River Stewardship Program field course focused on invasive species. The course included on-water travel between Cordova and Valdez and lessons from the Alaska Oil Spill Lesson Bank. Student leader and former PWSRCAC intern Mia Siebenmorgen Cresswell helped to facilitate two days of marine invasive monitoring with two other former or current PWSRCAC interns.
- Ecology for Teachers University of Alaska Anchorage:
Nine certified public-school teachers participated in a week-long, place-based learning course using Prince William Sound as the classroom. The course included content from the Alaska Oil Spill Lesson Bank and on-water tours of key areas related to historical and potential oil spills (such as, Bligh Reef).
- High School Interns & Engaging Youth as Environmental Stewards Center for Alaskan Coastal Studies (CACS):
PWSRCAC funds allowed CACS to work with and financially support summer interns from the EVOS region to carry out marine monitoring work and participate in and lead marine resource educational programs. It also allowed CACS to provide educational opportunities to students who may typically not be able to participate through scholarships and travel funding.
- Kenai Fjords Floating Teacher Workshop Alaska Geographic: 10 teachers participated in a 7-day accredited field course that includes materials and lessons from the Alaska Oil Spill Lesson Bank.

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 regularly attends webinars and other online trainings, most recently on WordPress Content Management System and website accessibility and analytics.

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.

Website data: Website usage for www.pwsrcac.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 specific pages, whether visitors were engaged enough to visit more than one page and much more.

Hot topics from 9/1/2022 to 12/1/2022 (other than home page).

1. Columbia Glacier
2. Exxon Valdez oil spill and Personal Stories from EVOS (The Spill and Project Jukebox interviews)
3. Improvements in oil transportation since 1989
4. Tanker escort system
5. Marine invasive species
6. Staff and Board bios
7. Updated position on dispersant use
8. Oil spill contingency plans
9. Requests for proposals
10. Dispersant literature review and research database

To access an interactive online report with more details, please contact Project Manager Amanda Johnson at amanda.johnson@pwsrcac.org.

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: An internship project and intern have not been identified at this time.

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:

- Council staff continued to try to obtain complete written responses from Alyeska regarding Council recommendations provided in June 2021, pertaining to two previous TOEM projects.
- Council staff attended the August 11, 2022 secondary containment system "tabletop" spill exercise and provided Alyeska with comments regarding the results of that drill. The purpose of that exercise was for Alyeska to demonstrate how they would respond to a catastrophic oil spill from Tank 10 at the Valdez Marine Terminal. This tabletop exercise was conducted to meet a VMT Contingency Plan "condition of approval" issued by the Alaska Department Environmental Conservation (ADEC) on May 11, 2022.
- In addition to Council staff reviewing the August 11, 2022 "tabletop" spill drill, Taku Engineering was provided with the spill exercise documentation and asked to: verify calculations used to support the exercise; evaluate estimated timing and tactics to de-inventory Tanks 9 & 10; evaluate estimated timing and tactics of recovering spilled oil, introduced saltwater, and

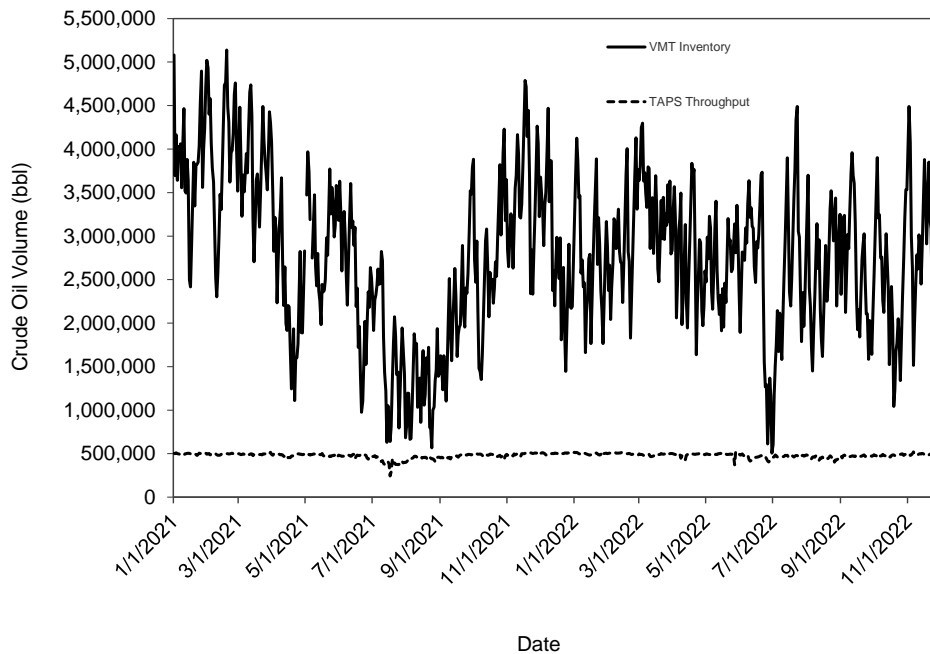
rainwater from Dike Cell 5; and evaluate estimated timing and tactics of removing contaminated soil from Dike Cell 5. Overall, Taku concluded that “the oil spill response tactics for this scenario are likely to be effective and secondary containment will be intact if water is maintained above the liner. However, it is unlikely that the response scenario can be completed in 30 days due to the hazardous nature of this work.” Taku offered four recommendations for ways to improve upon what Alyeska presented during the August 11 exercise. Council and Taku Engineering’s staff comments regarding the drill have been reviewed and “accepted” by the Oil Spill Prevention and Response (OSPR) Committee.

- On September 16, 2022, Council and Taku Engineering staff traveled to the Valdez Marine Terminal to meet with Alyeska management staff to discuss their damaged vent repair plan. Alyeska staff provided a comprehensive and informative summary of their repair plan, and also discussed their preliminary ideas for snow damage prevention measures they are considering for the future (e.g., installing metal snow splitters above each vent). Taku Engineering staff found the vent repair plan to be satisfactory.
- On September 20, 2022, Council and Taku Engineering staff met with Alyeska engineering and management staff to discuss the findings and recommendations of a technical memorandum (dated September 9, 2022) by Bill Mott from Taku Engineering. The general subject of the memo was the tank vent snow damage, and included the preliminary results of an analysis by Mr. Mott calculating the percentage of oxygen inside the crude oil tanks on the day the highest oxygen concentrations were measured (March 17, 2022). Mott’s analysis was intended to calculate the approximate oxygen levels in the headspace of the damaged tanks, in order to understand if a flammable or explosive atmosphere may have occurred within one or more of the crude storage tanks. The discussion during the September 20th meeting indicated that Mott’s initial analysis likely underestimates oxygen concentrations within the crude tanks on March 17, 2022. However, more information from Alyeska would be needed to confirm that conclusion, and such information was requested but has not yet been received. Additionally both Council and Alyeska staff agreed that a future follow-up meeting was warranted.
- On September 22, 2022, during the Board meeting in Seward, staff from the Council, Taku Engineering, and Alyeska made a presentation to the Board regarding the Council’s efforts to monitor the substantial tank vent damage that occurred at the Valdez Marine Terminal in February and March of 2022, and the subsequent work by Alyeska, state and federal regulators to investigate this incident, repair the vents, and prevent a reoccurrence of such an event.
- Council staff continued to monitor the progress of the investigations and inquiries being conducted by ADEC, PHMSA, EPA, and Alaska Occupational Safety and Health (AKOSH) regarding the February/March 2022 tank vent damages.

Attachments: Graphs depicting a variety of data related to the operation and environmental impacts of the Valdez Marine Terminal.

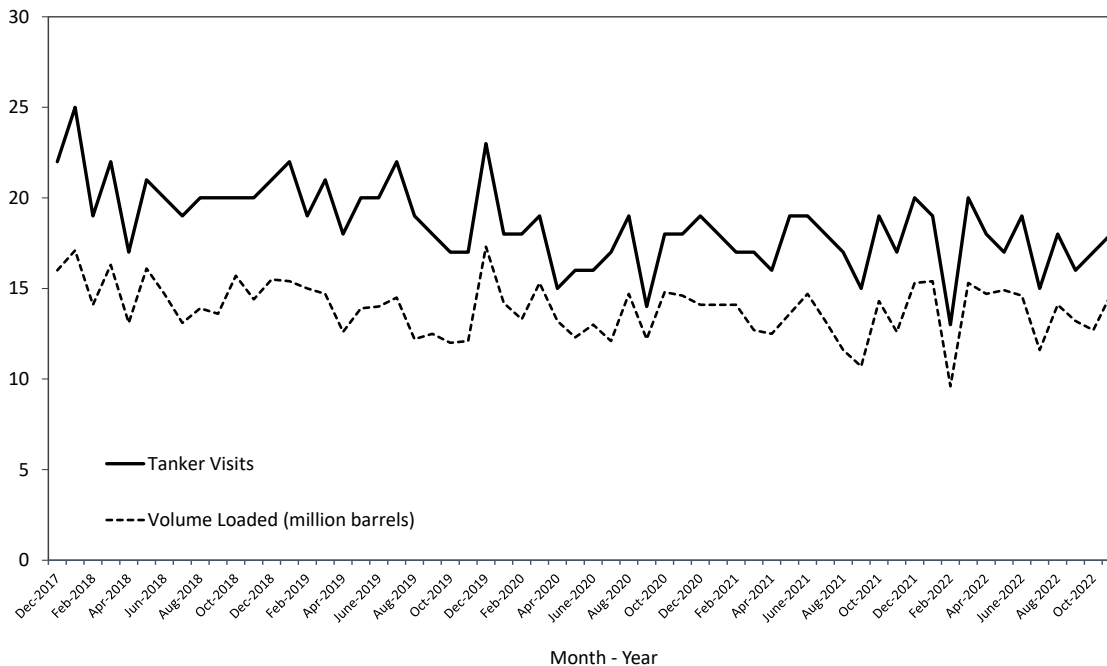
Daily Oil Inventory at the Valdez Marine Terminal and Trans-Alaska Pipeline Throughput

(Source: Alaska Department of Revenue - Tax Division, <http://tax.alaska.gov/programs/oil/production.aspx>)



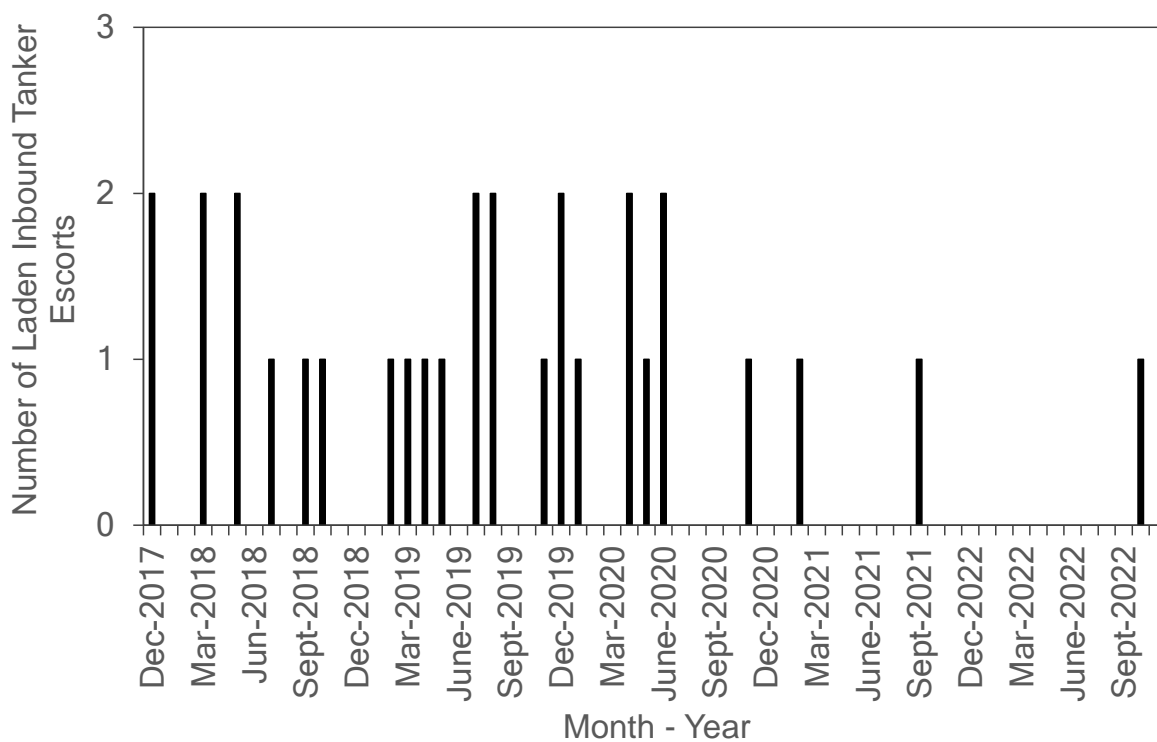
Number of tanker visits and crude oil volume loaded onto ships from VMT.

(Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date).



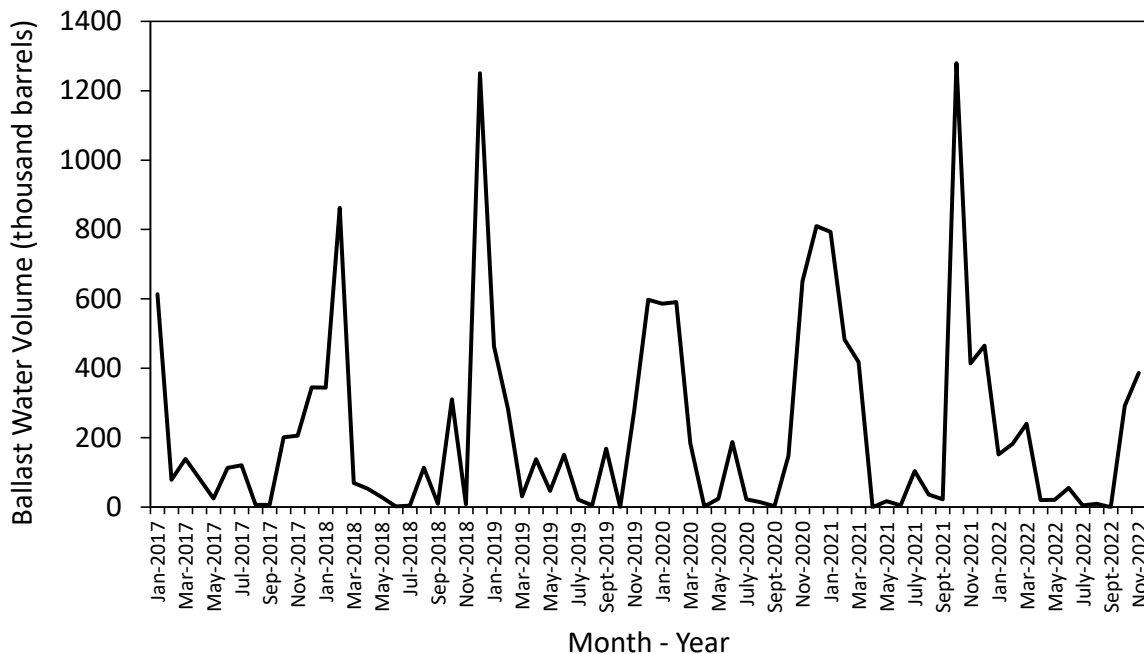
Inbound, laden tanker escorts to VMT.

(Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date)



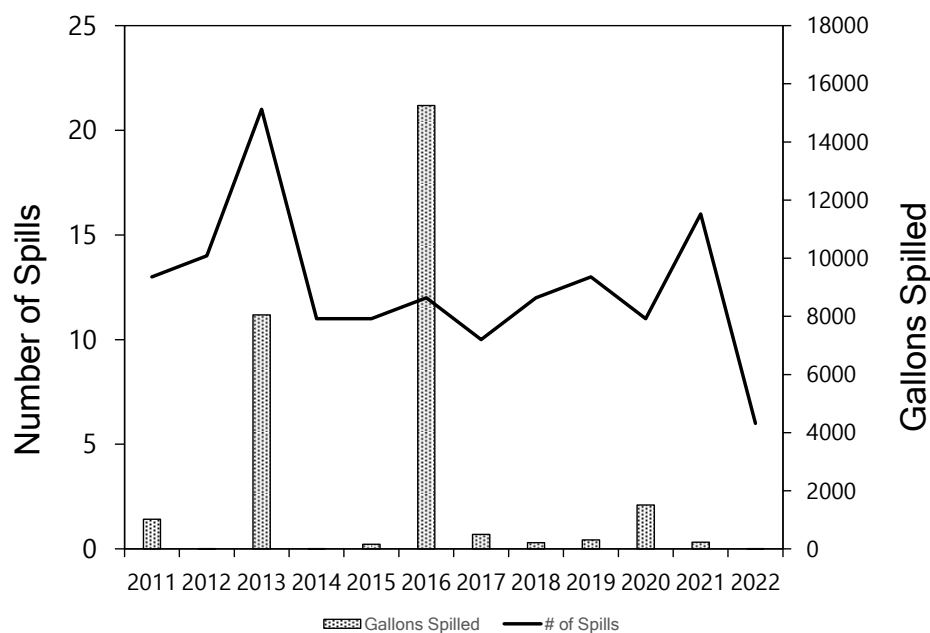
Monthly ballast water deliveries to Ballast Water Treatment Facility from tanker ships

(Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date.)



Annual spills associated with the operation and maintenance of the VMT. This chart shows all spills, of all types (e.g., hydraulic fluid, crude oil, lube oil, ballast water, PFAS-fire foam), to containment or to the environment (i.e., land or water)

(Source: Alyeska Pipeline Service Company)



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 is working to conclude her assessment and has provided a draft report of findings to staff. Ms. Garde will present her draft findings to the Board at its December 20, 2022 special Board meeting. After that time, and in an effort to work in an open and transparent manner, staff will provide the draft report to Alyeska. It is anticipated that a final draft of Ms. Garde’s report will be brought to the Board for acceptance at the January 2023 meeting.

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:

- Taku Engineering (the Council's contractor for this project) presented the key findings and recommendations from their report to the Board during the September 2022 meeting in Seward.
- The Board passed the following action at the September 2022 meeting: "Acceptance of 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 with 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."
- 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.

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 are scheduled to undergo 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 the Tank 7 and 94 aspects of this project have stalled because of delays in receiving information from Alyeska – this situation is largely the same as it was during the last report. Council staff have requested that the Tank 7 information be prioritized since that tank was put back into service in January 2022, while Tank 94 is still out of service. Alyeska staff are working to provide outstanding requested information pertaining to Tank 7 and informed the TOEM Committee it should be provided in August 2022, but that did not occur. Some of the Tank 94 information will not be available until after its maintenance is completed in the fall of 2022.
- Council staff and staff from Taku Engineering completed a site visit of the inside of ballast water Tank 94 on September 16, 2022. Alyeska staff were very helpful during the site visit answering questions regarding Tank 94's inspection and repair work.

- On August 25, 2022, the Council finalized a contract with Taku Engineering for the Tank 2 scope of work.
- Council staff and staff from Taku Engineering, along with representatives from ADEC and BLM, completed a site visit inside of crude oil Tank 2 on October 27, 2022. Alyeska staff were very helpful during the site visit answering questions regarding Tank 2's inspection and repair work.
- Taku Engineering wrote two technical memorandums, one regarding the Tank 2 site visit and another regarding the planned 2023 ballast water Tank 93 internal inspection. The TOEM Committee reviewed both memos during their November 16, 2022 meeting and recommended the Board accept the Tank 93 memo as final, but the committee still had questions regarding the Tank 2 memo.

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:

- On September 15, 2022, the Council received the long-awaited lab data from Environment and Climate Change Canada. This data includes the results of their physical and chemical properties analyses on a November 2019 Alaska North Slope crude oil sample. The delayed analyses and delivery of this data was due to the COVID-19 pandemic.
- On November 10, 2022, the Council finalized a contract with Dr. Merv Fingas to interpret how those properties would impact the effectiveness of oil spill response measures including mechanical recovery, in-situ burning, and dispersants.
- On December 2, 2022, Dr. Fingas provided a draft report, summarizing his interpretation, to the Council for review. The Scientific Advisory Committee is planning to review the draft report in January 2023.

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 September 2022 meeting highlights:

- Updates provided on Cultural Resources Committee, Wildlife Protection Committee, Statewide Planning Committee
- Formed Pribilof Islands Working Group Subcommittee
- *Plan Review Guidance to Alaska Area and Regional Planners*, June 2022, is available on ADEC's website
- Working on development of statewide risk assessment methodology
- Updating GIS and process to capture geographic response strategies (GRS)
- Update on Subpart J of the Clean Water Act: Status of Final Rulemakings:

- July 2021 – EPA issued final rule on Dispersant Monitoring requirements (effective January 2022)
- *Planned* May 2023 – Final rule on authorization of use and “testing and listing” (effective date August 2023)
- Presentation by Marine Spill Response Corporation (MSRC) on capabilities for aerial application of dispersants
- Formation of Regional Stakeholders Committee Task Force
- Next meeting is scheduled for March 8, 2023

Prince William Sound Area Contingency Plan (PWS ACP):

- Public comments were submitted on the PWS ACP in May 2022
- PWS Area Committee met October 13, 2022. Updates provided on National Pollution Funds Center, MSRC, Valdez Emergency Manager Aaron Baczuk, and D17 Tribal Liaison Rob Edwardson
- Next meeting is scheduled for April 19, 2023

Arctic and Western Area Contingency Plan (AWA ACP):

- Public review comments on updates to AWA ACP due in November 2022
- PWSRCAC comments can be viewed [HERE](#). Plan review documents are available on ADEC’s website [HERE](#) and comments submitted can be viewed [HERE](#)
- AWA ACP meeting held on November 1, 2022. Staff members Jeremy Robida and Maia Draper-Reich presented on PWSRCAC 101.

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:

Prince William Sound Oil Discharge Prevention and Contingency Plan (PWS Tanker C-Plan):

- Minor amendment approved by ADEC in December. Changes include:
 - Updating Plan Administrator to Andrea West of Polar Tankers
 - Updating IMT Command and General Staff Contact List
 - Updating technical information regarding large fixed-wing aircraft for dispersant application and replacing the C-130 aircraft with a Boeing 737

Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan (VMT C-Plan):

VMT Coordination Workgroup:

- Scheduled to meet on December 8, 2022
- Suggested agenda topics:
 - 2024 VMT C-Plan renewal – what substantive changes does Alyeska anticipate?
 - Secondary containment:

- Alyeska’s plan towards the requirements of Condition of Approval 2A (by Oct 2023, Alyeska must make a preliminary selection of a method to evaluate integrity of the secondary containment liner)
- Status of PWSRCAC’s work to identify non-destructive liner inspection methods and a recommendation on the area to be inspected
- Geographic Resource Database status update
- VMT Crude Oil Storage tanks vent damage:
 - Review changes made to *VT-470 Valdez Marine Terminal Snow Removal Plan*
 - Review of changes to *CIV-90 Snow Load Determination*

VMT Amendment 2022-1:

- Minor amendment approved on December 6, 2022. Changes include:
 - On November 4, 2022, Alyeska submitted Minor Amendment 2022-1 for approval by ADEC. This amendment included several administrative updates (contact information, section numbers, cross references), minor edits, and updates to regulatory citations. Also included in the amendment was a change to Alyeska’s drug testing program removing the requirement for a hair test for prohibited drugs prior to badging. In accordance with 18 AAC 75.415, ADEC must determine whether the amendment is minor or major. Attachment A is a November 21, 2022 email with a list of questions submitted to ADEC for their consideration in determining whether the proposed changes were minor or major.
- Secondary Containment Liner:
 - Dr. Craig Benson, secondary container liner expert, will present his research at the January 2023 PWSRCAC Board meeting. His research is focused on methods to evaluate liner integrity and determining how much of the liner should be tested to be “statistically significant.”

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 October 7, 2022, Dr. Craig Benson provided a draft report identifying and recommending non-destructive methods to assess the condition of the secondary containment liner and how much liner to evaluate in order for the results to be considered representative of the overall condition of the liner.
- On November 3, 2022 the Secondary Containment Project Team (includes Council staff, Board members, committee members, and legal counsel) met to review the draft report and received a summary presentation from Dr. Benson. Dr. Benson made some minor revisions to the draft report based on the project team’s review.
- On November 16, 2022 the TOEM Committee met to review the draft report and received a summary presentation from Dr. Benson. Engineering staff from Alyeska, ADEC, and BLM were in attendance at that meeting. The TOEM Committee took the following action: “Update the report with copyedit changes and recommend that the Board accept the report as final, make it publicly available, and promote its findings and conclusions to Alyeska, state and federal regulators.” Dr. Benson made the copyedit changes to the report and provided the final version to the Council on December 4, 2022. The final report is planned for action by the Board during the January 2023 meeting in Anchorage.

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.
- Working with NOAA Tide Gauge Shop in Seattle, the CTD sensor is set it up and running at the Valdez tide gauge station.

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:

- The fall haul out of the buoys is complete. Buoys were pressure washed and received a new coat of bottom paint. Water temperature sensors were replaced on both buoys.
- During the haul out, the battery charging system on the Duck Flats Buoy was replaced by JOA Surveys and is operating correctly.
- Buoys are reporting correctly and on station.

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: Dr. Rob Campbell developed his draft report in May, which was reviewed by the project team members. A meeting was held with Dr. Campbell and the project team to provide feedback on the report on June 17, 2022. The report was revised and sent back out to the project team for final input. After final editing, the report is now ready to present to the OSPR Committee at their December meeting and with their concurrence and recommendation on to the Board of Directors at the January 26-27, 2023 meeting.

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.
- Staff will be working through the winter to purchase the station components.
- Micro Specialties is being asked to submit a proposal for assembling the weather station.

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: The Phase 1 report was presented to the Board of Directors at the September 2022 meeting. Since then, the Peer Listener Project Team has met several times to discuss Phase 2 and updates to the Peer Listener Training manual. A Phase 2 request for proposals will be discussed by SAC in January 2023 prior to distribution.

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 ARRT has stood up an RSC task force with the stated goal of developing a draft Regional Stakeholder Committee (RSC) job aid to present to the ARRT. PWSRCAC's web-based RSC materials were shared with the task force at the start of the efforts. This group has met four times. Staff member Jeremy Robida will address this topic with the Board at the January meeting.

There have been several Area committee meetings since the September board meeting: the PWS Area meeting on October 13 and an AWA Area meeting on November 1. Robida noted at the PWS meeting that he hoped to secure funding for a project in FY24 to form a workgroup to address Copper River Delta and Flats GRS. He cited that this project was going through the long-range planning process internally, and feedback from agencies would be useful to help shape the scope. At the AWA meeting, it was noted that the GIS-based GRSs should be accessible on the ADEC's website by the end of the year.

This process has taken longer than expected, but PWSRCAC has been told that future edits should be easier and faster given that things are digitized and accessible on a GIS-based system. PWSRCAC, along with CIRCAC and a number of other NGOs, also gave short presentations at the November 1st AWA meeting. Staff member Maia Draper-Reich helped Robida present and explain PWSRCAC (who we are and what we do), our membership, and different projects that we've interacted with Area Committees on. The Copper River GRS project was also mentioned during the presentation.

The Pacific States/British Columbia Oil Spill Task Force held their Annual Meeting on November 2. Staff members Linda Swiss and Jeremy Robida attended. Oil spill planning updates were provided by officials from the states of Alaska, Washington, Oregon, California and Hawaii, as well as the province of British Columbia. ADEC's Director of the Division of Spill Prevention & Response (SPAR) Tiffany Larson gave a general update on ADEC noting that the Article 4 regulatory revisions currently under legal review are expected to be signed by the Lt. Governor by the end of November; this has yet to occur. Graham Wood, ADEC SPAR's Program Manager, also spoke to how ADEC engages with communities in rural Alaska.

Robida had expected to observe an emergency towing exercise on November 6, but the event was ultimately cancelled, as the tanker departed later than expected off the berth, and the tanker captain noted that it was getting too dark to run the towing exercise. The final contingency plan-required towing exercise of the year took place on December 6, but was not observed as there was an OPSR Committee meeting that day.

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 their September meeting and the paper was formally transmitted to CDR Patrick Drayer (USCG MSU Valdez), Torri Huelskoetter (U.S. EPA), Allison Natcher and Anna Carey (ADEC), Greg Bjorgo (BLM), Lee McKinley (AK Dept. of Fish and Game), Angelina Fuschetto (RPG), Andres Morales (APSC), and Mike Day (SERVS).

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

SERVS Valdez Wildlife Training – October 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. PWSRCAC member Jeremy Robida attended the Valdez wildlife training.

VMT IMT and Field Exercise – October 11-12, 2022

Alyeska held their annual Incident Management Team (IMT) tabletop exercise with an equipment deployment on October 11 and 12. The scenario was a response to an immediate 20,000 barrels oil spill to water at Berth 4 that continued to spill until 59,000 barrels were spilled. There was a deployment of two of the VMT's self-propelled skimmers demonstrated on the 12th as part of the exercise. Several PWSRCAC staff served as evaluators for this exercise.

Cordova Fall Fishing Vessel Training and Readiness Exercise – September 26-28, 2022

SERVS conducted the fall fishing vessel training and an open water and nearshore readiness exercise in Cordova. This completed the annual fishing vessel program training for 2022. Roy Robertson attended and observed this fishing vessel training.

VMT Secondary Containment Condition of Approval 2C Exercise – August 11, 2022

Alyeska presented their simulated spill response actions to a complete loss of Tank 10 at the Valdez Marine Terminal. PWSRCAC staff Roy Robertson and Austin Love attended this exercise in person and Joe Lally and Linda Swiss attended virtually.

Upcoming Drills and Exercises

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.
- A significant effort has been underway with staff, Arctic IT, and Marine Exchange of Alaska to update the AIS reporting system in the Anchorage and Valdez offices.
- Maia Draper-Reich and Alan Sorum of staff and Peter Soles of Glosten are preparing to make 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.
- The Project Manager has joined a discussion group of scientists, community members, emergency managers and others interested in mitigating the hazards presented by landslides, especially those that generate tsunamis.
- The Project Manager participated in the 2022 Alaska Coastal and Ocean Mapping Summit.
- The Project Manager continues to monitor the Washington State Tug Escort and Emergency Response Towing Vessel (ERTV) Analysis Project.

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 was selected to work on this project. An initial meeting was held with the POVTS Committee and work is underway.

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 has been completed with Sky Island Language Learning Research and work is underway.
- The Contractor will be briefing the POVTS Committee on progress at its next regular meeting.

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

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 PM attended the Alaska Invasive Species Partnership Workshop in Anchorage November 1-3, 2022. Science Night was a successful event held on December 1, 2022.

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 final report and recommendations were presented to the Board of Directors at its September 2022 meeting.

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: All 2022 Port Valdez environmental samples (mussels, marine sediments, and passive sampling devices) have been analyzed by their respective labs, Oregon State University and Alpha Analytical Labs/NewFields. The analytical data has been provided to the Council.

Dr. Liz Bowen and collaborators have largely completed reviewing the April 2020 oil spill mussel genetic data produced by Novogene (a genetic lab in Sacramento, California), and have almost completed a draft summary report of their findings and recommendations. The draft report should be ready for Scientific Advisory Committee review in January 2023.

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 contractor submitted a draft report of the findings from the June 2022 aerial forage fish surveys to the Scientific Advisory Committee this fall. The report and recommendations will be available for Board review 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 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: As of December 12, 2022, eleven sample sets have been collected by Alyeska staff, bringing us very close to the goal of twelve sample sets. The Council project manager continues to coordinate with the Alyeska lab staff collecting the samples. Once collected and delivered, the contractor will analyze the dozen samples and report the results to the Council.

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:

- The results of the plankton sampling and metagenetics analysis were presented by contractors from the Smithsonian Environmental Research Center at the September 2022 Board meeting.
- Interns in Cordova, Valdez, and Kodiak completed their monitoring for European green crab in their communities, finding none. Interns in Valdez and Kodiak have already completed the outreach component of their internship to classmates at the Prince William Sound College and

participants at the Alaska Invasive Species Partnership Workshop, respectively. All interns have submitted their required data to the project manager.

- Planning for the 2023 broadscale survey for invasive species has begun with preliminary discussions on site selection and dates.

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:

- A final report and updated position statement on dispersants was presented to the Board of Directors at its September 2022 meeting. The position was adopted and is now final.
- The Council's contractor from Nuka Research and Planning drafted supporting materials to aid communication of the position. The supporting materials were presented to the Scientific Advisory Committee this fall and will be presented to the Board at the January meeting.
- Dr. Merv Fingas of Spill Science is actively updating the dispersants literature database with the latest peer-reviewed literature through fall 2022.

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: A contract has been finalized with the Alaska Department of Fish and Game for subsistence harvest surveys in Tatitlek this winter. Project planning and coordination is underway.