



PRINCE WILLIAM SOUND

REGIONAL CITIZENS' ADVISORY COUNCIL

September 2022

Status Report

As of August 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: Staff are working to develop the content for the 2021-2022 report. Work with the graphic design contract has also begun.

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 event in Seward took place on April 14, 2022. The Council partnered with Alyeska and Major Marine Tours to provide a 2- hour cruise, free for the public, to observe the on-water exercises of the fishing fleet SERVS training. Information on the event was provided during the Council outreach update presentation at the May 2022 Board meeting. The next event is likely to take place in Spring of 2023 either in Valdez or Cordova.

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: Recent outreach events include:

- **May 17-19** Shipper drill – PWSRCAC staff participate as observers and evaluators
- **May 23** PWS Natural History Symposium

- Hybrid, onsite in Whittier (~50 attended) and online (~190 registered). They used Frostline Media to run onsite cameras and Crowdcast conference platform.
- Hosted by PWS Stewardship Foundation. PWSRCAC are sponsors and presenters.
- Betsi Oliver presented an intro to EVOS history, Coping with Technological Disasters Guidebook, and Regional Stakeholder Committee resources developed by the Council.
- Mia Siebenmorgen Creswell presented on her work with invasive species.
- **May 24** RCAC 101 Valdez Guides' Orientation (29 attended)
- **June 4** PWS Science Center *Copper River Nouveau* and ribbon cutting on new facility
- **June 13-14** Presentation to teachers' course with NPS in Seward

The Council hired a new Outreach Coordinator, Maia Draper-Reich, to replace the out-going coordinator Betsi Oliver, who left to pursue a graduate degree. Maia's first day was August 8, and has since been working to learn her new responsibilities and duties.

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 reviewed two project proposals and moved to accept both for FY2023 funding: Chugach Mountain Institute for \$5000 and Environmental Undergraduate Research Experience: PWS College for \$4896.

Three projects completed their final reporting requirements:

- Natural History Symposium Youth Involvement through the PWS Stewardship Foundation engaged 25 youth from the region in the live Symposium virtually and/or in person in Whittier for the first ever Youth Track.
- Inspiring Girls to Reach for the (Sea)Stars through the Center for Alaskan Coastal Studies conducted an afterschool science club for youth in Homer with a theme this year of water.
- Remotely Operated Vehicle (ROV) Challenge at Alaska's Tsunami Bowl through the PWS Science Center (PWSSC) was held, along with PWSSC finishing and distributing an ROV guide to educators who want to run their own ROV education programs.

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 March. Agenda: <https://www.nten.org/ntc/> This event was held online due to the pandemic. Please contact Amanda Johnson for more information about this conference.

The Observer: The Council's newsletter, *The Observer*, is produced three times per year in both print and email format.

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.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 particular pages, whether visitors were engaged enough to visit more than one page and much more.

Hot topics from 5/28/2022 to 7/28/2022 (other than home page).

1. Updated Coping with Technological Disasters content
2. Regional Stakeholder Committee resources
3. Alaska Oil Spill Lesson Bank
4. Columbia Glacier
5. Requests for Proposals
6. Staff/Volunteers
7. Exxon Valdez oil spill and Personal Stories from EVOS (The Spill and Project Jukebox interviews)
8. Drills and exercises (response operations)
9. Contingency plans
10. Ballast Water Treatment Facility

Please contact Project Manager Amanda Johnson if you would like more details.

3620 – Connecting with Our Communities

Objectives: Contract with a public relations firm to work with the Council to develop a long-term communications and public image strategy. Develop Council image, messaging, and voice, as well as contemporary ways to communicate who we are to the public within the EVOS region and beyond. Implement the strategy and evaluate its effectiveness in the short run. Make changes as necessary and implement for the long term.

Accomplishments since last report: The last major deliverable for the contracted portion of this project, media training, was held April. All remaining work with the contractor, Helvey Communications, was completed by June 30. Internal work by staff will continue around the project's objectives going forward into the foreseeable future (not as a budgeted item).

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: A new intern will be recruited this fall for a spring semester term.

5000 - Terminal Operations Program

Objectives: The goal of the Terminal Operations and Environmental Monitoring 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.

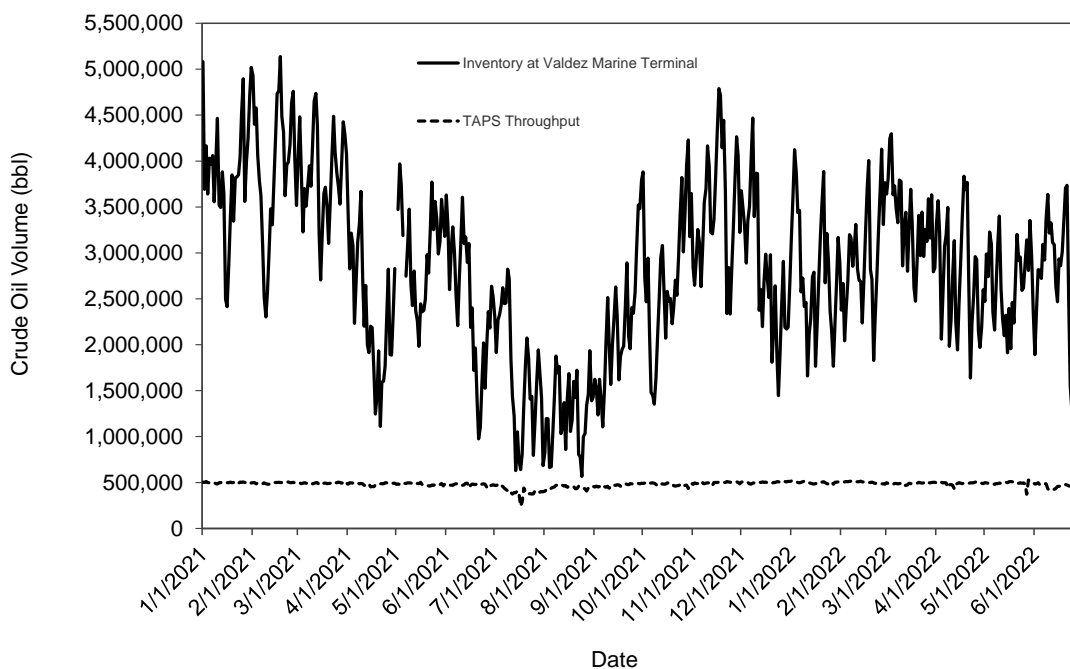
Accomplishments since last report:

- The Council is still waiting for a complete written response from Alyeska to the Tank 8 Maintenance Review Project and Cathodic Protection Systems Review Project recommendations sent to Alyeska on 6/14/2021. Council staff and contractor, Taku Engineering, met with Pipeline Hazardous Materials Safety Administration (PHMSA) representatives on 6/29/2022 to summarize these recommendations and discuss their potential implications.
- Bill Mott (Taku Engineering) wrote a technical memo (dated 4/18/2022) describing concerns related to the potential buildup of oxygen in the crude tanks while Alyeska was working to address the crude tank vent damages caused by snow and ice buildup on the tank tops this winter. The memo also included some initial recommendations related to the tank vent damages and requests for information from Alyeska (information to confirm/deny the oxygen concentration concerns). The technical memo was provided to Alyeska (on 4/19/2022) and the Council requested the information listed in the memo, but to date that information has not been provided by Alyeska.
- Council staff and the TOEM Committee continue to monitor multiple investigations and inquiries being conducted by ADEC, PHMSA, EPA, and Alaska Occupational Safety and Health (AKOSH) regarding the February/March 2022 tank vent damages. Council staff have received, organized, and shared information with these agencies to assist with their investigations.
- Council staff and the TOEM Committee continue communications with Alyeska regarding their work to permanently repair and prevent future damage to the tank vents.
- The secondary containment liner leak model and report were finalized and shared with Alyeska, ADEC, BLM, and the EPA. Council staff have been working with Alyeska and ADEC staff to design the August 11, 2022 secondary containment "tabletop" spill exercise. The results of that exercise should be helpful to update the liner leak model and report.

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

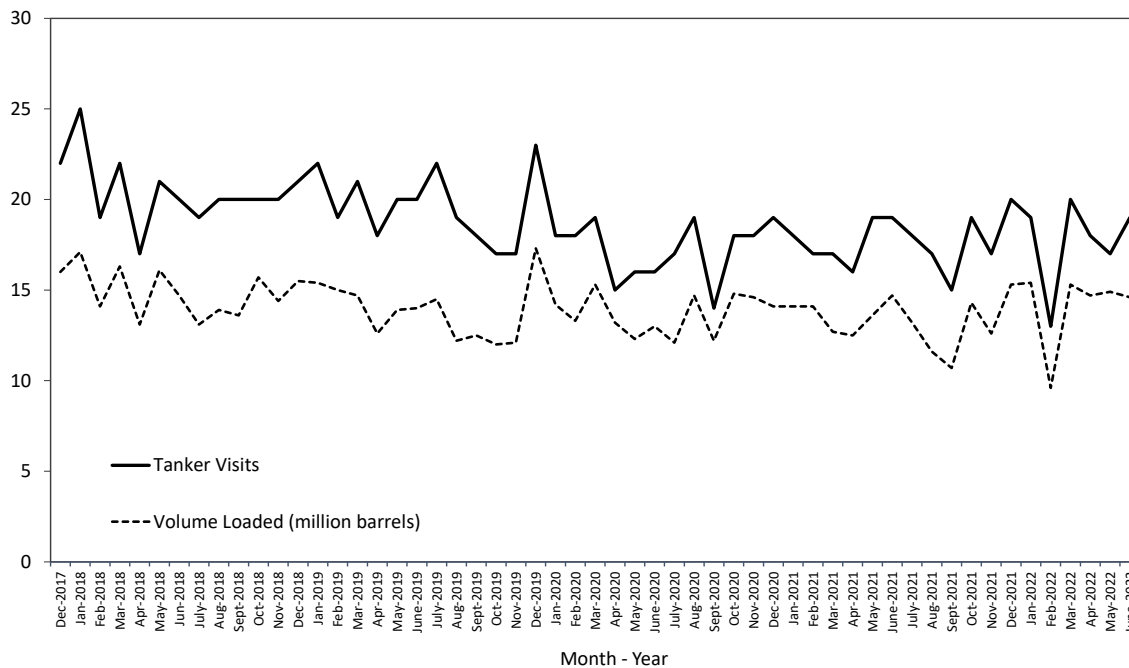
Daily Oil Inventory at the Valdez Marine Terminal and Trans-Alaska Pipeline Throughput

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



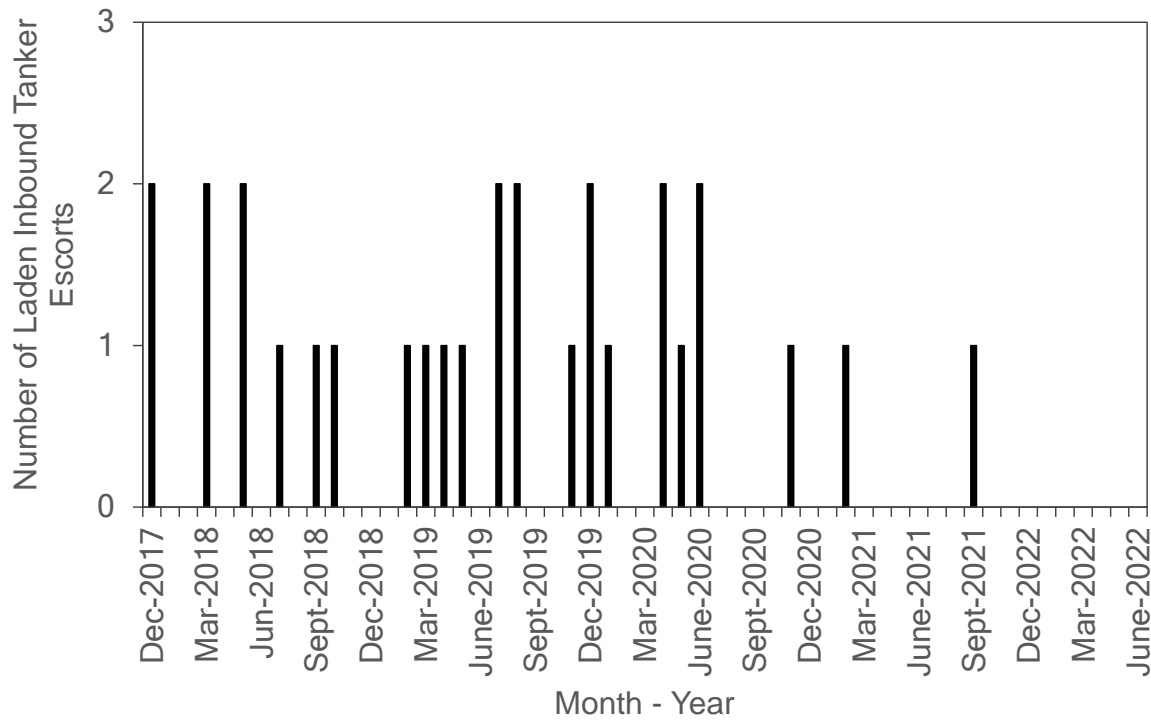
Number of tanker visits and crude oil volume loaded onto ships from VMT.

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



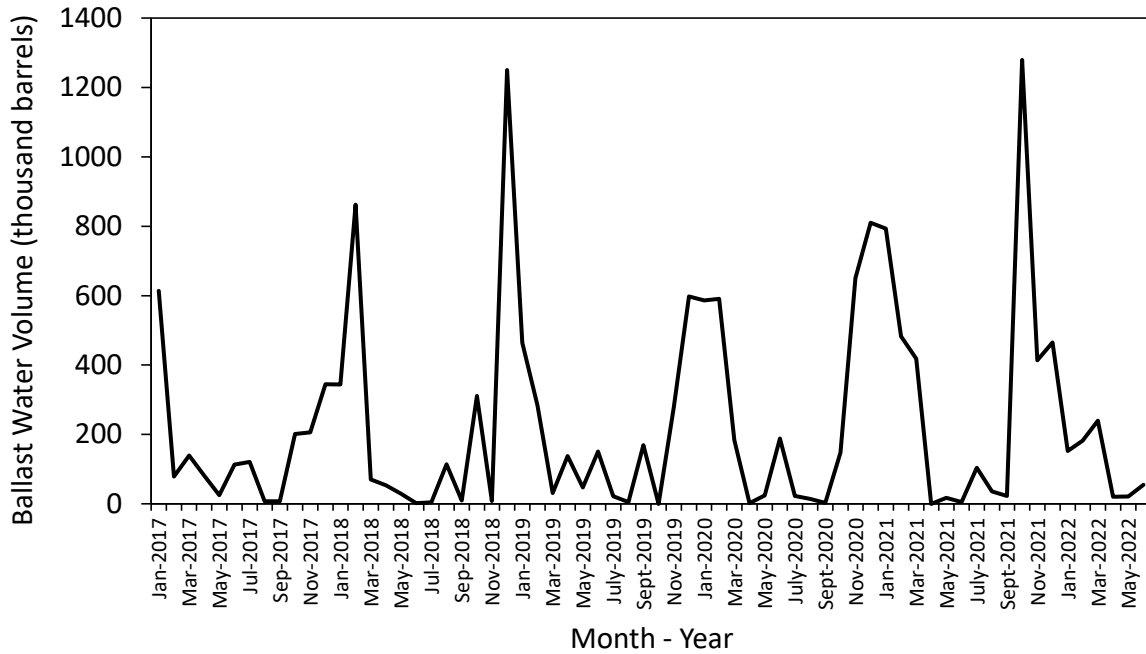
Inbound, laden tanker escorts to VMT.

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



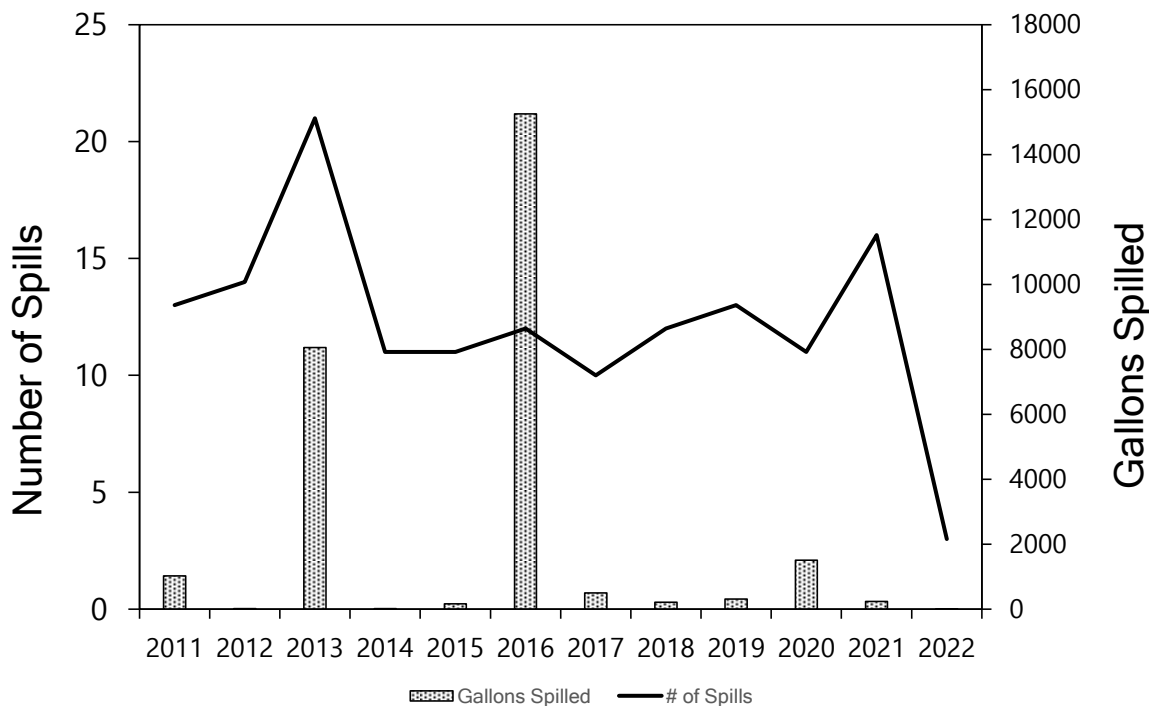
Monthly ballast water deliveries to Ballast Water Treatment Facility from tanker ships

(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)



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: Council staff are drafting a request for proposals to solicit bids from contractors to perform the scope of work.

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 has been retained to review and assess information provided to PWSRCAC by concerned Alyeska employees. Ms. Garde has also been contacted by several concerned Alyeska employees as part of this effort. This work is being conducted with the utmost discretion and confidentiality for the employees that have provided concerns. While Ms. Garde is an attorney, she is not providing legal services to PWSRCAC. It is anticipated that Ms. Garde’s draft report will be available sometime in October, and a special Board meeting will be scheduled to review the report and determine next steps.

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) created a final report for this project based on their review of documentation provided by Alyeska.

The Terminal Operations and Environmental Monitoring Committee reviewed the development of the report by Taku Engineering. During their July 28, 2022 meeting the Committee passed the following action "Recommend that the Board accept the [June 2022] Tank 8 report as final, request Alyeska to consider and implement its recommendations, and for distribution to the public."

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 done 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. 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. 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. Some of the Tank 94 information will not be available until after its maintenance is completed in the fall of 2022.

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: Environment and Climate Change Canada's oil lab expects "to be finishing up on the analysis by the end of July. The report is being drafted, and the complete set of data available in August, targeting mid-month."

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:

Regional and Area Planning:

Alaska Regional Response Team (ARRT): General information on the ARRT can be found [HERE](#), and meeting summaries and presentations can be found [HERE](#).

The next ARRT meeting is scheduled for September 22, 2022 in Anchorage.

Alaska Regional Contingency Plan: Version 2 of the Regional Contingency Plan is available [HERE](#).

Prince William Sound Area Contingency Plan (PWS ACP): Public review comments were submitted on the PWS ACP on May 11, 2022. Highlights of comments include:

- Identification of areas for improvement.
- Highlighted areas with missing information or inconsistencies between plans and/or guidance/policy.
- Recommend Geographic Response Strategy (GRS) information is current, updates are adopted, and a process is established for future updates.
- Continue coordinating with the Arctic and Western Alaska Area Committee on converting GRS to GIS (geographic information system mapping).
- Update and approve GRS for Copper River Delta and Flats.
- Update Potential Places of Refuge (PPOR) information based on 2017-2019 Safeguard Marine reports.
- Suggest the PWS Area Committee request NOAA put PPORs be identified on nautical charts with a certain symbol. That would help to quickly identify the closest PPOR for distressed vessels.
- Use of anchorage at Knowles Head by vessels leaking oil should not be allowed from March through June as this area has the last remaining population of Pacific herring.
- Include dispersant use avoidance areas in the PWS ACP.

Arctic and Western Alaska Area Contingency Plan (AWA ACP): The Admin Subcommittee has meet regularly over the last several months to update the AWA ACP. PWSRCAC's informal comments were provided in June. A 30-day public review is expected to begin in August.

Outstanding Questions or Issues:

Alaska Department of Environmental Conservation (ADEC) Public Review of updates to 18 AAC Chapter 75: Public comments were submitted on updates to oil spill regulations at 18 AAC Chapter 75 on January 28, 2022. Regulatory changes are expected fall 2022.

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. At a time yet to be determined, 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 matter is currently tied up 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 c-plans for the Valdez Marine Terminal and the Trans Alaska Pipeline System 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, Crowley Alaska Tankers, Hilcorp North Slope, and Polar Tankers (last renewed on February 1, 2017) will expire in 2022. Alyeska Pipeline Service Company (Alyeska) Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan (VMT C-Plan) was last renewed on November 15, 2019, and will expire in 2024.

Accomplishments since last report:

Prince William Sound Tanker C-Plan (PWS Tanker C-Plan): The 5-year renewal of the PWS Tanker C-Plan was issued on January 31, 2022. There are no new updates on this plan.

Valdez Marine Terminal C-Plan (VMT C-Plan):

VMT Coordination Workgroup: The VMT Coordination Group met in June and is scheduled to meet on August 25, 2022. Updates were provided on projects, maintenance, SERVS activities, and drills/exercises. The workgroup charter is under review and we hope to make these quarterly meetings more productive at making improvements to the plan.

6512 – Secondary Containment Adjudicatory hearing

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: Contracted with Dr. Craig Benson to complete study and report identifying and recommending non-destructive methods to assess the condition/integrity 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.

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 had a guy wire fail and it had fallen on its side. Rob Campbell flew out to the site and was able to repair the station. Rob noted the wind meter and instrument enclosure are in bad shape and should be replaced. Richard Brown has been asked to develop a quote for the replacement.
- The CTD sensor has been delivered and we are waiting on a cable. We are working with NOAA to set it up for use with the Valdez tide 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 power system on both buoys were found to be significantly corroded over over the winter. The VMT buoy has been repaired and is fully operational, and the power system on the Duck Flats Buoy will be updated during the fall service visit.
- FY23 contracts for the Prince William Sound Science Center and JOA Surveys have been completed for the new fiscal year.
- Sensors are being shipped out for annual service and calibration.

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 OSPR and with their concurrence on to the Board of Directors at the January 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:

- A land use application was made to the USDA-Forest Service Cordova Ranger District for installation of the weather station.
- Rob Campbell was able to stop by the proposed weather station site. The exact location was recorded, and photos taken for the Forest Service.
- The Forest Service made a site visit to the proposed location and has completed the State Historic Preservation Office (SHPO) and archaeological clearances needed for the proposed site.
- The Forest Service is now writing a record of decision for the project.

6560 – Peer Listener Training

Objectives: Review and assess the Peer Listener Training and similar programs nationwide to ascertain current best practices. The resulting report will inform the Council's decisions about how to revise the Peer Listener Training program, the associated manual (an appendix of "Coping with Technological Disasters: A User-Friendly Guidebook"), and the train the trainer program going forward.

Accomplishments since last report: Contractor Purpose Driven Consulting (PDC) completed the research phase of this project. Their work includes a literature review, a review of similar programs nationwide for best practices, and an in-depth review of the Council's existing program, including stakeholder interviews.

The Peer Listener project team and the Information and Education committee have reviewed the final report, with the IEC providing a recommendation that it be accepted by the Board. A presentation on PDC's finding will be provided at the September Board meeting, when the Board will be asked to accept the final report.

This review will inform Phase II of the project to update the Council's 30-year-old Peer Listener program. Phase II is budgeted for this fiscal year with work planned to begin after Board acceptance of the final report.

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:

- Regional Stakeholder Committee updates:
 - PWSRCAC participated in a Marathon Petroleum Company RSC workshop that was held as part of a series of workshops and training events that replaced their annual tanker exercise that was cancelled due to COVID-19
 - PWSRCAC attended the first meeting of the ARRT RSC Task Force that took place in August 2022
- Attended various Area plan meetings
- Attended and evaluated various deployments and trainings observed

This spring Marathon Petroleum Company conducted some mock **Regional Stakeholder Committee drill play** as part of series of workshops they ran in lieu of actual exercise play due to COVID precaution

which forced this workshop alternative. This event occurred April 11th. Robida and Robertson contributed to planning for this RSC event, provided potential names and organizations that might be involved, and Marathon created the scenario, and facilitated the workshop. Marathon also reviewed and used some of PWSRCAC's RSC resources online and pointed workshop participants to this material as well; <https://www.pwsrcac.org/rsc/> Some recommendations that came out of the workshop that could be applied to the PWSRCAC RSC online resources include:

- Putting more emphasis on the need for the Liaison Officer to better prepare participants in terms of providing maps of the spill site, anticipated trajectories, and more situation awareness. This would have helped participants understand the incident particulars and be better prepared for their RSC roles.
- Familiarizing the Liaison Officer with the content and location of the checklist intended to prepare participants and help them know what to expect in terms of the RSC process. This would also help the Liaison Officer manage the expectations of the RSC members.
- Highlighting the need for a position to document the concerns and information that the RSC wants to provide to the Unified Command. While the RSC can manage this in whatever fashion they deem best as a group, there's a lot of information being passed which should be captured.

The ARRT is also standing up an **RSC Task Force** with the stated goal of developing a draft Regional Stakeholder Committee (RSC) Job Aid. The first meeting took place on August 2nd. Donna Schantz, Joe Lally, and Jeremy Robida attended.. PWSRCAC's RSC materials were shared with leadership for the task force and this concept and task of creating a better job aid for the greater state and creating more consistency across Area plans is something PWSRCAC supports. The document describing this Task Force has been attached.

Various **Area planning meetings** were attended by staff. This included the AWA Admin sub-committee meetings held on May 10, June 14, and July 10. The AWA GRS sub-committee met on May 24 and June 28. And the AWA exercise and training sub-committee met on May 13. Two topics being monitored closely are 1) ongoing GRS to a GIS database migration and 2) risk assessment work, both being led by the AWA. It's anticipated that the Coast Guard will provide a presentation to the OSPR Committee on these topics in the future.

One project which was slated to start in fiscal year 2023, was **UAV Use During Spills White Paper**, at an estimated cost of \$15K. This project ranked 27 out of 28 projects in the LRP ranking, and staff determined that a similar paper was commissioned by the Oil Spill Recovery Institute (OSRI) with the University of Alaska Fairbanks . This project was cancelled based on the reasons above. Staff has been monitoring the progress of this OSRI effort which is expected to be completed circa Fall 2022. Staff will share this OSRI paper with OSPR once it is completed.

Various exercises and training events were attended by staff since the last Board meeting. These include the following:

- 5/9 Mineral Creek Barge Lightering Deployment
- 5/14 Valdez Star Deployment
- 5/16-18 Annual large scale tanker exercise, table-top, Exxon/Crowley Alaska Tankers led
- 6/18 Solomon Gulch Hatchery Deployment
- 7/29 Emergency Towing Exercise with tanker *Polar Enterprise*

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 (NAVSUPSAV). The project will also address timing and logistical information related to movement of such equipment.

Accomplishments since last report: Final report is on the September 2022 Board meeting agenda for Board acceptance.

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

Valdez Duck Flats Sensitive Area Protection Training – June 29-30, 2022: SERVS conducted a sensitive area protection exercise for the Valdez Duck Flats in Port Valdez to provide training for the TCC response crews. This was a two-day training that included classroom, field visits, and deployment of the boom on the west side of the Valdez Container Terminal.

Solomon Gulch Hatchery Protection Training Exercise – June 18, 2022: Alyeska conducted a sensitive area protection exercise at the Solomon Gulch Hatchery in Port Valdez to provide training for the TCC response crews.

Exxon/Crowley Alaska Tankers (CAT) Exercise – May 17-19, 2022: This year’s annual PWS Shipper’s exercise was conducted by Exxon/CAT in Valdez. The exercise was held physically at SERVS’ Valdez Emergency Operations Center (VEOC) and virtually using the Teams platform. The scenario was a loss of 140,000 bbls of crude oil in the traffic lanes close to abeam Smith Island and the oil trajectory was going to Orca Bay.

Valdez Star Deployment Exercise – May 14, 2022: The Valdez Star conducted an open water oil recovery exercise in Port Valdez on May 14. This exercise allowed the new captain of the Valdez Star to practice operating the vessel in oil recovery mode.

Barge Mineral Creek Lightering Exercise – May 9, 2022: Edison Chouest Offshore and SERVS conducted a lightering training exercise at the Valdez Container Terminal (VCT) in Port Valdez. Lightering equipment was offloaded from the barge onto the VCT dock to simulate a tanker deck and setup as a demonstration.

Cordova Nearshore Response Readiness Exercise – April 29, 2022: SERVS conducted nearshore response readiness exercise in Cordova with some of the Cordova Tier I fishing vessels. This exercise was held in conjunction to the annual fishing vessel training for the Cordova vessels.

Whittier Nearshore Response Readiness Exercise – April 18, 2022: SERVS conducted nearshore response readiness exercise in Shotgun Cove with some of the Whittier Tier I fishing vessels. Six boats were involved with the exercise that was conducted the day before the annual Whittier fishing vessel training.

OSRB-1 Open Water Barge Deployment Exercise – April 7, 2022: SERVS conducted an open water oil recovery exercise in Port Valdez on April 7. This allowed some of the Valdez Tier I fishing vessels to train with the barge crews.

Polar Endeavour Emergency Towing Exercise – March 31, 2022: Polar Tankers and SERVS conducted a mid-sound emergency towing exercise on the last day of March. This was the first towing exercise that PWSRCAC has been able to observe on the tug since the COVID-19 precautions were established for the recent pandemic.

Upcoming Drills and Exercises

VMT Secondary Containment Exercise – August 11, 2022

VMT Scenario 4 Exercise – October 12, 2022

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

- Rick Steiner has asked the Council to consider a project to reduce whale strikes in Prince William Sound. Kathleen Leonard, a marine mammal specialist in the NOAA Fisheries Protected Resources Division in Anchorage, will be the point of contact for NOAA with this effort. PWSRCAC will continue to monitor this effort.
- The Maritime Operations Project Manager continues to participate in the interagency Barry Arm project team for the Council.
- Project Manager Sorum is participating VMT Secondary Containment Project Team.
- The Washington 2019 Legislature passed *The Reducing Threats to Southern Resident Killer Whales by Improving the Safety of Oil Transportation Act* (ESHB 1578). This Act is a portfolio of projects aimed at preventing a catastrophic oil spill in Puget Sound by closing safety gaps related to vessels carrying oil in bulk. The Act requires the Washington Department of Ecology to assess whether an emergency response towing vessel serving Haro Strait, Boundary Pass, Rosario

Strait, and connected navigable waterways will reduce oil spill risk. Staff will be following this effort and will pass on anything of interest.

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 A Request for Proposals has been prepared and advertised with proposals due July 30, 2022. No bids were received. Staff recommends that this project be withdrawn.

8012 - Field Trials of Messenger Line Throwing Devices and Video

Objectives: This project will evaluate the effectiveness of line throwing devices identified as being best available technology in the 2020 report, "Tanker Towline Deployment BAT Review." Field trials of this equipment will underscore best techniques in their use and will improve user experiences with the equipment. Results will be used to develop a set of recommended practices that will be shared with industry. A final report on the project findings will be presented to the Council.

Oil tankers operating in Prince William Sound are required to carry emergency towing equipment. The availability of this equipment can allow a stricken tanker to be towed safely to a place of refuge, where further action can be taken to stabilize the vessel. A key action that must occur in the use of one of these towing systems is to successfully make the final connection between the tow package messenger line and the vessel to be towed. Passing messenger lines to stricken vessels can be done by hand, heaved or thrown aboard, projected by mechanical means, or picked out of the water. Weather is often a factor in vessel casualties and retrieving a line can be difficult and dangerous in poor weather.

This last year, the Council contracted the maritime research firm Glostren to evaluate the technologies available to pass or deploy messenger lines to vessels in distress to determine what constitutes best available technology (BAT), and then using a similar approach, compare currently used line handling technologies with alternatives identified by the consultant. The final report, "Tanker Towline Deployment BAT Review," has been well received and should prove useful in the future.

Accomplishments since last report:

- On Point Outreach has competed a video presentation that details the projects outcomes. There was significant photo and video documentation of the trials.
- The Board is being asked to accept the video at their September 2022 meeting.

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 POVTS 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: A Request for Proposals (RFP) has been prepared, advertised and closed on July 30, 2022. One proposal was received. An RFP review team will meet to review the proposal in late August.

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. The overarching goals of this multiphase project are to reduce miscommunication and contribute to best practices in ship to ship, ship to shore, and on board vessel interactions by providing stakeholders with a thorough review of the issues impacting maritime communication. This includes the role of linguistic, social, and cultural components and their influence on miscommunication, as well as a comprehensive evidence-based understanding of the linguistic and pragmatic needs and practices for maritime interactions and communication in PWS.

Accomplishments since last report: A draft contract has been prepared. The Board is being asked to authorize a contract with Sky Island Language Learning Research at their September 2022 meeting.

9000 – Environmental Monitoring Program

Objectives: Coordinate projects developed and overseen by the Scientific Advisory Committee and obtain scientific knowledge and technical information with regard to 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. Staff are actively planning for the December 2022 Science Night event.

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. Here are the notable tasks to be accomplished under this project:

- Perform winter bird surveys in Prince William Sound for three consecutive years
- Analyze data obtained during winter bird surveys
- Report the results of the analysis
- Make winter bird survey maps readily available for use by spill response managers

Accomplishments since last report: Contractors from the Prince William Sound Science Center analyzed the data collected during March 2022 surveys and presented a draft report and recommendations to the Scientific Advisory Committee. A revised draft of the report and recommendations will be presented at the September Board 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: Dr. Morgan Bender, from Owl Ridge Natural Resource Consultants, presented results of the 2021 Port Valdez environmental monitoring work to the Board during the May 2022 meeting. Dr. Morgan Bender completed the 2021 LTEMP report, and during their June 7, 2022 meeting SAC recommended the Board accept Dr. Bender’s report as final and for public distribution. All 2022 Port Valdez environmental samples were collected from June 1-4 by Council staff and sent to various labs for analysis.

Novogene, a lab based in Sacramento, California, completed the genetic analyses on mussel samples associated with the April 2020 oil spill from the Valdez Marine Terminal. Dr. Liz Bowen and collaborators have begun reviewing the data produced by Novogene.

9511 – Herring and Forage Fish Surveys

Objectives: Monitor schools of herring and other forage fish species to identify areas in the Sound where they tend to concentrate. Here are the notable tasks to be accomplished under this project:

- Conduct aerial surveys of forage fish in Prince William Sound
- 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: A contract for the fourth year of forage fish surveys was executed with the Prince William Sound Science Center in May 2022. Aerial forage fish surveys were conducted during June 2022 and a brief overview of the results was provided by the contractor to the project manager. A full report is expected this fall.

9512 – Determining Concentration and Composition of Oxygenated Hydrocarbons from the VMT

Objectives: The goal of this project is to determine the types and amount of oxygenated hydrocarbons that are released from the Ballast Water Treatment Facility (BWTF) at the Valdez Marine Terminal. The notable tasks to be accomplished under this project are as follows:

- Collect monthly water samples from the BWTF 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: Council staff and contractor were provided a tour of the BWTF by Alyeska staff in support of this project. As of July 30, 2022, five sample sets have been collected by Alyeska staff and delivered to the contractor for analysis. Sample collection is ongoing and it is expected to take several months to complete twelve sampling events. At Council and contractor request, Alyeska has agreed to collect an additional sample from the 90s tank at the BWTF (prior to ballast water offload from tankers) for a total of four samples in each set.

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 and Cordova

Accomplishments since last report:

- Contractors at the Smithsonian Environmental Research Center and Moss Landing Marine Laboratory presented a report summarizing the results of the 2021 plankton sampling to the Scientific Advisory Committee. A revised draft of the report and recommendations will be presented at the September Board meeting.
- Interns for the 2022 field season began in Cordova and Valdez in June by checking settlement plates in their respective harbors for invasive tunicates and setting traps to monitor for European green crab. An internship was initiated with a high school student in Kodiak and monitoring began in July.
- Planning has not yet commenced for the 2023 broadscale survey.

9550 - Dispersants

Objectives: This project entails reviewing and potentially updating the Council's current position regarding the use of dispersants in the event of an oil spill in our region. The current position states that the Council does not support the use of dispersants for spill response in Prince William Sound. This project would also involve updating Council documents that are used to technically support and educate the public about the Council's official dispersant use position.

Accomplishments since last report:

- Following the initial workshop on March 10, 2022, for Board members, a three part follow up workshop series was held in May and June 2022 to discuss various components of dispersants application, tradeoffs, and science.
- The Council's contractor drafted a report summarizing the content and outcomes of the Board workshops on dispersants as well as an updated draft dispersants use position statement. The report and position statement will be presented at the September Board meeting.

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: Approval to enter into a contract with the Alaska Department of Fish and Game for this project is requested at the September Board meeting.