



PRINCE WILLIAM SOUND

REGIONAL CITIZENS' ADVISORY COUNCIL

January 2022
Status Report

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: Work to create the content and design for the 2020-2021 report was completed. The report has been posted to the Council's website and printed copies have been distributed.

3410 – Fishing Vessel Program Community Outreach

Objectives: For bringing the realities of oil spill response tactics, equipment, and planning to life for citizens within the Exxon Valdez oil spill region communities, the fishing vessel community outreach program is a perfect venue. Each fall and spring SERVS holds its fishing vessel program training in the following communities: Cordova, Valdez, Whittier, Seward, Homer, and Kodiak. The on-water portion of the training, in partnership with Alyeska/SERVS, shows real-time capabilities of oil spill 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 response.

Accomplishments since last report: A spring 2022 event in Seward is tentatively scheduled.

3500 – Community Outreach Program

Objectives: Increase awareness of PWSRCAC and increase communications with member organizations and communities in the Exxon Valdez oil spill region.

Discussion: A blend of virtual and in-person outreach as some live conferences and events resume. A key effort has included encouraging public comment on ADEC's regulatory reform package; comments are due January 31, 2022.

Accomplishments since Last Report:

- A third Volunteer Connections Zoom event gave volunteers a chance to connect informally
- Presentations to academic institutions: PWS College, and University of Alaska Fairbanks Water & Environmental Research Center

Booth exhibited at conferences: Alaska Association of Harbormaster and Port Authorities, and Alaska Municipal League

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:

- Center for Alaskan Coastal Studies (CACS) created virtual field trips made up of multiple short video segments, written classroom/homeschool lessons, nature exploration activities, and live Q&A session with CACS staff, and presented them to student groups around the region.
- Projects to occur in Spring & Summer 2022 were selected in January.

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.

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 major technical upgrade to the platform that is used to create and manage the content on all Council websites.

Website data: Website usage for www.pwsrca.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 9/10/2021 to 12/9/2021 (other than home page).

1. Requests for proposals ↑
2. About staff
3. Columbia Glacier
4. Personal stories from EVOS
5. History of EVOS
6. Alaska Oil Spill Lesson Bank ↑
7. September Board of Directors meeting
8. Job listings

9. Regulatory reform ↑
10. Ballast water treatment

↑ denotes hot topics compared to previous four months.

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

3620 - Connecting with Our Communities - Pending Funding in FY2022

Objectives:

1. Contract with a public relations firm to work with the Council to develop a long-term communications and public image strategy.
2. 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.
3. 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: Due mostly to pandemic considerations, the media training deliverable has not been conducted. The Board approved a budget modification at their September meeting to carry over the remaining contract funds into the FY22 budget to hopefully conduct this deliverable in spring of 2022.

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: Intern Rosie Brennan completed extensive outreach to educators around the state, including teachers, informal educators, homeschool parents, and curriculum planners. She presented to IEC a thorough report of outreach activities that the Council can use going forward to continue to promote its educator resources, including the Alaska Oil Spill Lesson Bank.

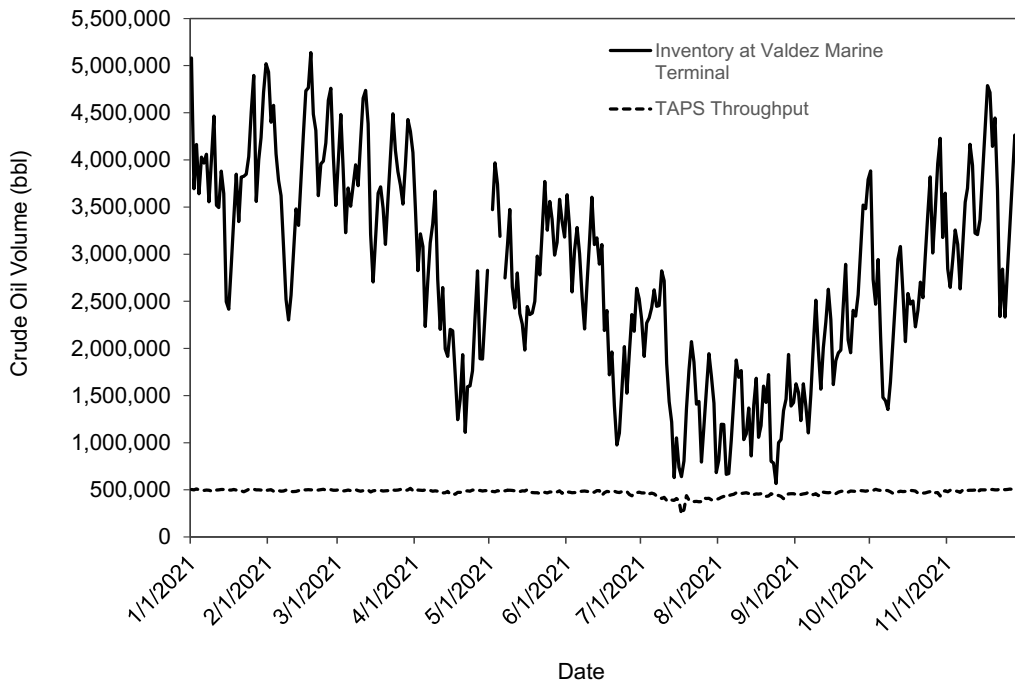
5000 - Terminal Operations Program

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.

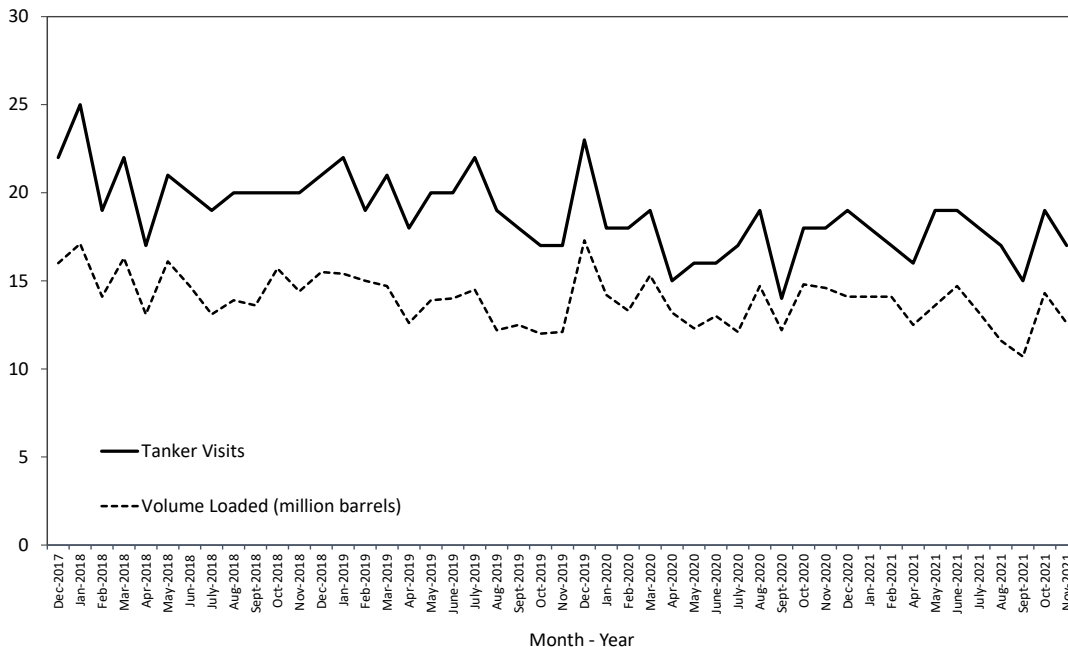
Accomplishments since last report: Monitored spills associated with operation and maintenance of the terminal, crude oil laden tanker ship tug escorts, 2021 VMT projects, and water quality of effluent discharged from the VMT Ballast Water Treatment Facility (BWTF) and sewage treatment facility. Additionally, Taku Engineering was selected through a request-for-proposals process to assist with ad hoc work related to monitoring and providing advice related to the operation and maintenance of the Valdez Marine Terminal.

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

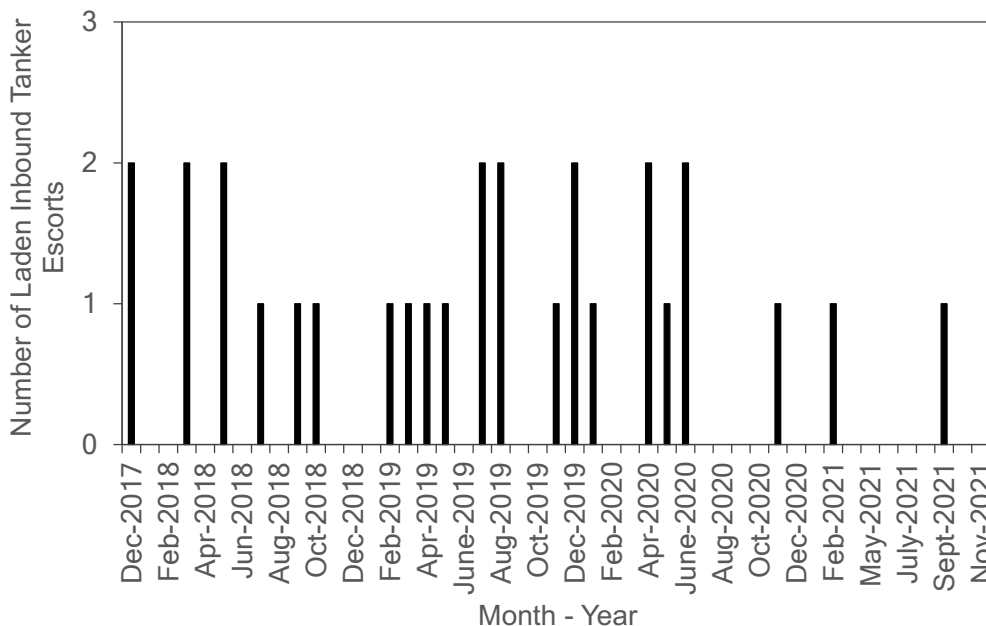
- 2021 Daily Oil Inventory at the Valdez Marine Terminal and Trans-Alaska Pipeline Throughput.** (Source: Alaska Department of Revenue - Tax Division, <http://tax.alaska.gov/programs/oil/production.aspx>.)



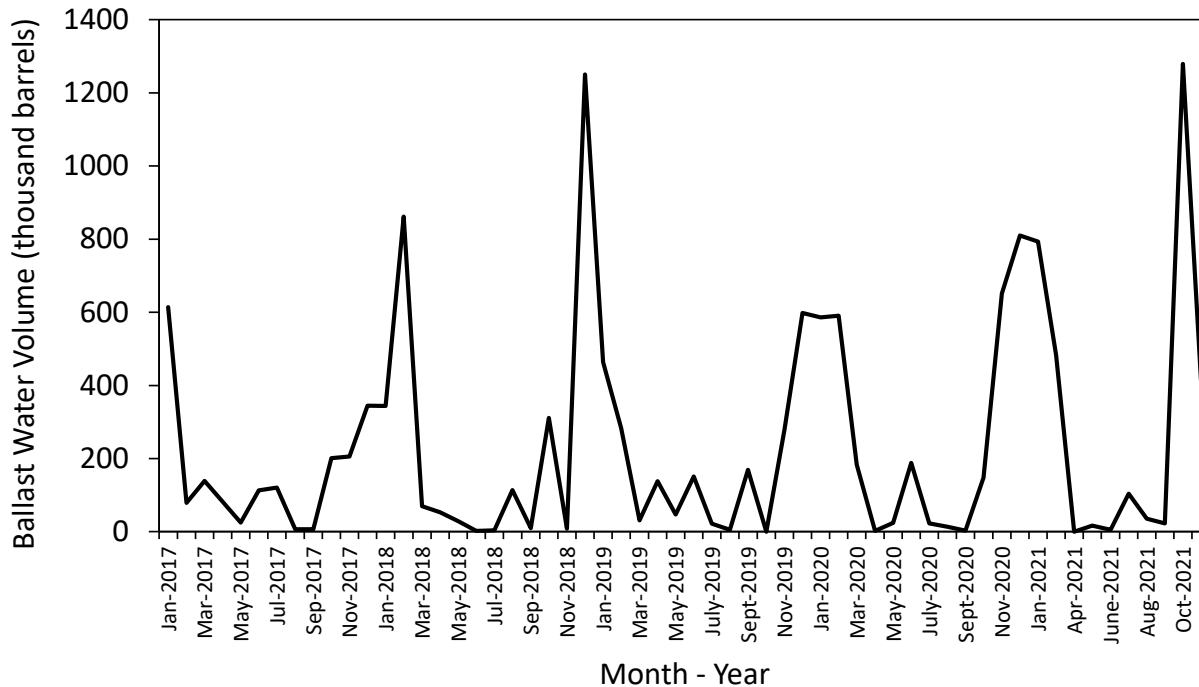
- Number of tanker visits and crude oil volume loaded onto ships from VMT.** (Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date).



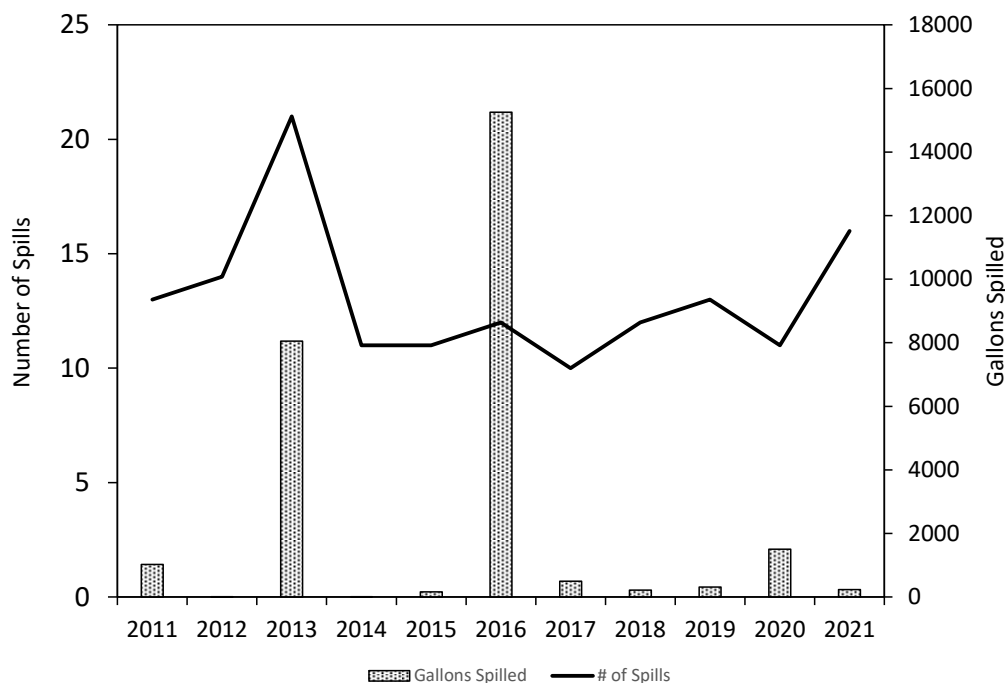
- **Inbound, laden tanker escorts to VMT.** (Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date.)



- **Monthly ballast water deliveries to Ballast Water Treatment Facility from tanker ships.** (Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date, current through February 2021.)



- **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.)



5056 - Tank 8 Internal Inspection Review

Overall Goal: 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: The Council finalized a sole-source contract with Taku Engineering to complete the FY 2022 scope of work.

5057 - Alyeska's Appeal of EPA's July 2020 Air Quality Rule (NESHAP OLD): Establishing a Council Position

Overall Goal: This project will entail the review of an EPA air quality rule that is applicable at the Valdez Marine Terminal and review Alyeska's subsequent appeal stating that certain parts of the new rule should not go into effect because those particular provisions would adversely affect the operation and maintenance of the terminal.

Accomplishments since last report:

- John Beath Environmental, the Council's contractor for this project, provided a draft report and verbal presentations to the Terminal Operations and Environmental Monitoring Committee.
- The Council provided John Beath Environmental with comments on the draft report, and John Beath worked to update the draft report based on comments received.
- The Terminal Operations and Environmental Monitoring Committee voted to recommend John Beath Environmental's report to the Board for acceptance and recommended that the Council should send a letter to the EPA in support of Alyeska's appeal.

5081 – Crude Oil Tank 7 and Ballast Water Tank 94 Maintenance Review

Overall Goal: 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 considers all the pertinent information in the decisions they make to safely maintain both tanks, now and in the future.

Accomplishments since last report:

- The Council entered into a contract with Taku Engineering, LLC to complete this project.
- On November 10, 2021, staff from Taku Engineering and the Council joined Alyeska personnel to perform a site visit of crude oil storage Tank 7 to observe the status of its maintenance and internal inspection.
- On November 30, 2021, Taku Engineering issued a preliminary report pertaining to the November Tank 7 site visit with recommendations for Alyeska to consider implementing before putting the tank back into service.
- On December 1, 2021, the Council sent a letter and the preliminary Tank 7 report to Alyeska, urging Alyeska to implement the recommendations provided by Taku Engineering.

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 began to perform chemical and physical analyses on the November 2019 Alaska North Slope crude oil sample (this was long-delayed due to COVID-19 restrictions the lab was under).

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 in-person meeting is scheduled for February 17, 2022 in Anchorage.

Agenda topics from the September 2021 meeting include:

- Geographic Response Strategies (GRS) mapping applications
- USCG, EPA, and ADEC response authorities and jurisdictions
- Update on EPA Subpart J – Subpart J, as part of the National Contingency Plan (NCP), governs the use of dispersants and any other chemical or biological agent to respond to oil discharges.
- Update on navigable waters of the US

Alaska Regional Contingency Plan Public Review: Comments were submitted on the public review of the Alaska Regional Contingency Plan (RCP) on August 5, 2021. No further information is available.

Prince William Sound Area Contingency Plan (PWS ACP): The PWS ACP is expected to go out for public comment sometime in the near future.

Agenda items from the September 2021 PWS AC meeting include:

- Alternative Planning Criteria
- GRS to GIS update
- Wildlife Protection Guidelines update

Arctic and Western Alaska Area Contingency Plan (AWA ACP): Informal comments were submitted on the AWA ACP in August. Staff has attended the Admin Subcommittee and Geographic Response Plan Subcommittee meetings over the last few months.

Agenda items from the December 2021 AWA AC meeting include:

- Wildlife Protection Guidelines update
- GRS to GIS transition update
- Use of Unmanned Aerial Systems (UAS) in GRS
- AWA ACP will be updated and signed before the end of 2021.

ADEC Public Review of updates to 18 AAC Chapter 75: ADEC posted its Notice of Proposed Changes to Oil Pollution Prevention Requirements in the Regulations of Alaska Department of Environmental Conservation on November 1, 2021 available [HERE](#). The 90-day public review runs from November 1, 2021, to January 31, 2022.

- Staff and contractors have been reviewing proposed changes and developing comments.
- Staff members Brooke Taylor and Betsi Oliver have been doing outreach to our committees, Board members, member entities, and other stakeholders.

There will be a presentation on this topic at the Board meeting.

BP-Hilcorp Transaction: On December 14, 2020, the Regulatory Commission of Alaska (RCA) issued an Order Granting Applications Subject to Conditions regarding the transfer of TAPS assets (including the Valdez Marine Terminal) from BP Pipelines to Harvest Alaska. PWSRCAC plans to submit an amicus curiae brief in support of the City of Valdez appeal to the RCA's March and December 2020 orders allowing Hilcorp/Harvest Alaska to keep financial information confidential and granting the transfer of BP's assets to Hilcorp.

- PWSRCAC is waiting to see if the Alaska Supreme Court accepts the City of Valdez appeal.
- If the appeal is accepted, the court will issue a briefing schedule which will indicate when our amicus curiae brief is due.
- If the court does not accept the case, we will not file our brief.

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 following is the timeline for the renewal of the PWS Tanker C-Plan:

May 21, 2021	Plan submitted for sufficiency review
June 9, 2021-July 23, 2021	Public review of plan renewal
October 7, 2021	ADEC issues requests for additional information
November 1, 2021	Shippers provide responses to RFAs
Nov 18, 2021 – Dec 2, 2021	Public review of responses to RFAs

Documents can be viewed on OSPR's website [HERE](#).

There will be a presentation on the PWS Tanker C-Plan renewal at the Board meeting.

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

VMT Coordination Workgroup: The VMT Coordination Group met on December 9, 2021, and addressed updates to the workgroup charter.

VMT C-Plan Condition of Approval 3C: On October 6, 2021, ADEC approved a request for completion from Alyeska on Condition of Approval (COA) 3C from the November 15, 2019 approval of the VMT C-Plan. On May 25, 2021, Alyeska successfully completed the deployment of Drainage 58. On August 19, 2021, Alyeska successfully completed deployment for Drainage 51, thus meeting the requirements of COA 3C.

Requests for Informal Review: On December 2, 2021, ADEC issued a decision on PWSRCAC's requests for informal review on the November 15, 2019 approval of the VMT C-Plan. Highlights are:

- ADEC is requiring Alyeska to evaluate the integrity of no less than 10% of the buried CBA liner.
- If ADEC denies APSC's proposed method to evaluate the CBA liner, APSC will be required to incorporate feedback from ADEC into the evaluation methods and submit that no later than 30 days after denial.
- If ADEC determines the approved method causes unacceptable damage to the liner, ADEC may approve an alternative evaluation method and timeline proposed by APSC.
- APSC must provide a report to ADEC on the findings of the evaluation within six months after completion of the work or six months before submittal of the new plan renewal, whichever is earlier.
- Failure to demonstrate the CBA liner is sufficiently impermeable may require the liner to be replaced, removal of the 60% prevention credit, and an updated plan to meet the Response Planning Standard.

- No change was needed to address deficiencies with Drainage 58.
- There are adequate numbers of personnel to respond to a Scenario 5 spill. (Scenario 5 is a Response Planning Standard-sized spill of 204,180 barrels (bbl) of Alaska North Slope crude, where 155,000 bbl reaches open water and the remainder is retained on land.)

6511 - History of Contingency Planning

Objectives: The purpose of this project is to take a long-term view of contingency planning in Alaska spanning over 30 years since the *Exxon Valdez* spill. This project will document where progress has been made and where protections have decreased through the established regulatory record. The first phase of this project is focused on the Prince William Sound tankers and the second phase will focus on the Valdez Marine Terminal. The final report from each phase will capture the evolution of contingency planning in Alaska by identifying key issues, themes, and trends over time.

Accomplishments since last report: This project has been deferred until FY2023, to identify and organize the extensive list of documents related to the VMT-C-plan that PWSRCAC has collected over the last 30 years.

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:

- Our two weather stations are operating normally and we have had no maintenance issues with them.
- AOOS has offered the Council a grant of \$20,000 to install a Conductivity, Temperature, and Depth (CTD) sensor in Port Valdez.

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]. 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 located in the vicinity on the Valdez Marine Terminal (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 and service visit was successful. The buoy hulls were cleaned, zinc anodes replaced, sensors replaced as needed, and batteries recharged. A representative from JOA Surveys will attend the spring 2022 haul out.
- Funding for this project was included in the AOOS five-year program planning proposal. One of their priorities is to improve marine safety and there is an interest in weather related projects.
- In a related effort, AOOS has offered a \$20,000 grant to the Council to install a CTD sensor in Port Valdez. Information from this sensor would become part of the PORTS site for Port Valdez.

6534 - Cape Hinchinbrook Weather Surveillance

Overall Goal: Working cooperatively with the Prince William Sound Science Center (PWSSC), this project seeks to provide improved observations of weather and wave conditions seen at the Hinchinbrook Entrance to Prince William Sound. The primary focus of this effort will be the eastern portion of the Entrance that encompasses the established vessel traffic lanes that pass by Cape Hinchinbrook.

Initially, this project will be focused on securing a land use permit from the U.S. Coast Guard and U.S. Forest Service at Cape Hinchinbrook. The follow-on project will be the installation of an upland weather station and supporting equipment at the Cape. This equipment will provide observations of standard meteorological variables, wind speed and direction, temperature, humidity, and barometric pressure at the Cape. Power to the equipment installed on the uplands will be provided by solar panels and a wind generator. Data generated by the equipment will be telemetered out via cellular modem link to the Naked Island communications site.

Once the site is established, additional instruments may be considered, including an X-band (8.0 to 12.0 GHz) wave radar and a subsurface moored wave gauge.

Accomplishments since last report:

- The project was included in the current Long Range Planning process and the funding request is for potential permit fees needed to secure a land use permit from the Coast Guard. Establishment of a weather station at Cape Hinchinbrook will be proposed once a permit is secured.
- Funding for this project was included in the AOOS five-year program planning proposal. One of their priorities is improving marine safety and there is an interest in weather related projects.
- Staff continues to work with the 17th Coast Guard District on permitting for the weather station.
- This project was deferred to an off year in the FY2023 long range planning process.

6536 - Analysis of Weather Buoy Data

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 project is the first of five projects that would 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: The first Project Team meeting for this year's project is scheduled for the Week of December 6 to discuss the direction of the contracting process for this project.

6540 – History of Copper River Delta Flats GRS

Objective: The purpose of this project is to develop a white paper that captures the history of developing geographic response strategies (GRS) in the Copper River Delta and Flats (CRDF) area. GRSs are pre-built response strategies used to protect pre-identified sensitive areas in the event of an oil spill. Considering CRDF is part of the Prince William Sound Area Contingency Plan (PWS ACP), this information would be applicable to this plan. The white paper would document the significance of protecting this valuable, fragile ecosystem, and explain the current status of the GRS.

Accomplishments since last report: The project officially went live in early September. Staff and Nuka met for a short kick-off meeting to talk through project intent and goals, and confirm the scope of work and deliverables prior to work beginning. Nuka generated a brief summary of this meeting and project research began afterwards.

Prior to this meeting, Staff spent a significant amount of time sorting through and making sure related paper documentation was captured in our document management system. This included a large volume of physical files from former staffers Dan Gilson and Joe Banta, and Council volunteer Steve Lewis that were directly or tangentially related to this project. Through this process, project manager Jeremy Robida flagged a lot of documents that would be of interest and provided this list to Nuka. Project manager assistant Nelli Vanderburg was instrumental in getting these documents in order.

Accomplishments since last report: Nuka is still engaged with the “research” phase of the project. Almost all of documentation within our document management system has been reviewed and identified, and Nuka is now transitioning to interviews with those involved in the CRDF GRS development process. Several interviews have been conducted so far.

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: After extensive research to identify potential contractors, the project team selected Purpose Driven Consulting to proceed with the research phase of this project. The research, expected to be completed this spring, will inform Phase II of the project to update the Council's 30-year-old Peer Listener Training program, which is also budgeted for this fiscal year.

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: Staff members Linda Swiss and Jeremy Robida covered a variety of "planning" meetings; the Inland meeting 9/21, the ARRT meeting 9/23, and then the PWS Area Committee meeting on 9/28. It's been challenging to track what each area and their respective sub-committees are working on, and with Area plans being managed via the "sponsorship model" attending any-and-all of these meetings seems important. A variety of topics were covered at these meetings and further detailed notes are available. In terms of OSPR interests, highlights include:

Inland meeting 9/21

- CIRCAC presented on some inland GRS work they've been doing. They've created new sites along the road corridor to address potential highway spills. These new sites are already completed in a GIS based format. It was noted how the Arctic Western AK (AWA) Area plan had the GRS workgroup in motion and the how the immediate goal was getting this GIS-based system up and functional, before addressing any new GRS site information.

ARRT meeting

- AWA Area plan secretary, LCDR Matt Richards addressed how a GRS validation exercise was held in Kodiak in September. An unmanned aerial vehicle (UAV) was used to fly several GRS sites and produce images of these sites and verify suggested tactics. It's anticipated that this vetting via UAV will continue with other sites. The protocols for managing this imagery and making edits to a GRS site via NOAA's collector app were also tested, but these protocols are still being formalized. The USCG, ADEC, and University of Alaska Fairbanks were involved with this effort.
- CDR Jereme Altendorf further addressed the GRS to GIS process and gave a brief history of how the GRSs were converted. He cited how all of the GRS information was back with ADEC now and how protocols for making updates were still to be finalized. Defining this update process was deemed critical before this information is uploaded to the ADEC website. Altendorf said it was important that OSROs, industry, RCACs, etc. be able to suggest changes as sites were deployed.
- ADEC's SPAR director Tiffany Larson gave both opening and closing remarks, but did not touch on the regulatory reform and public comment process that was set to open as of 11/1/21.

PWS Area Committee meeting

- AWA Area plan secretary LCDR Matt Richards was in town for this meeting and spoke to the GRS to GIS update process, providing essentially the same information as the ARRT meeting noted above. Project manager Jeremy Robida inquired about the backlog of GRS sites in PWS, citing how these sites had been deployed via SERVS, how SERVS had suggested edits, how these edits were approved via the Federal and State On-Scene Coordinators at the area plan level, but that actual updates were still showing as pending on ADEC's website and have been for years. The point person managing GRSs for ADEC was concentrating his efforts on getting the GIS-based system up and functional and it's unclear how and when these pending edits will be addressed.
- There was also an afternoon session and workshop to discuss a hypothetical spill in Cordova and how that would be managed. This discussion was led by the USCG. The scenario related to an Articulated Tank Barge (ATB) from Kirby Marine, which grounds due to a hacked AIS system/signal. The two forward tanks of the barge were of most concern given the scenario and equate to a potential spill volume of 8,400 barrels. Participants discussed some of their initial reactions to this spill event. The group was supposed to meet again at the end of October, but nothing has been announced yet.

There was an unannounced call-out of the rapid response fleet vessels based in Cordova, for an OSRB deployment near Johnstone Point on 11/8. Project manager Robida had intended to observe the

exercise via chartered vessel, but unfortunately weather in the Valdez Arm did not allow for this to happen. Winds had picked up that morning in the Valdez Narrows and were blowing a consistent high 20s with gusts touching 30 knots. The captain of the vessel cancelled the trip for safety reasons, knowing it would be a rough ride with freezing spray, especially on the transit back. As with other Council chartered vessels in the past, seats were offered to the USCG and ADEC, so they could also view the exercise. A member of the USCG had planned to join the cancelled trip. Staff will continue to monitor upcoming exercises and charter vessels as opportunities and timing allows.

7030 – Contracted Fleet Vessel Readiness Verification / Staff-Led Dock Walk

Objective: Contracted vessels serve a vital role in the Prince William Sound tanker and Valdez Marine Terminal contingency plans because almost all of the response tactics described in these plans require contracted vessels and their trained crews to implement. With this project, PWSRCAC intends to conduct a physical survey of a given port (or multiple ports) and attempt to verify that vessels self-reporting as available, actually are available.

There are approximately 400 vessels and associated crews on contract with SERVS. These vessels are predominantly commercial fishing vessels and fall into four categories: (1) Tier I vessels (or the “core” fleet of approx. 50+ vessels on contract), located in ports within Prince William Sound and required to be ready to respond within six hours; (2) A subset of approximately eight Tier 1 vessels (referred to as Rapid Response Vessels), strictly Cordova-based, and expected to be underway within an hour of notification; (3) Tier II vessels (the bulk of the fleet, numbering 300+), in ports both within and outside of Prince William Sound, and expected to be ready to respond within 24 hours, with a total of 40 vessels anticipated to depart by hour 18; and (4) Tier III vessels, which the contingency plans include discussion on, but the Tier III program is simply a recruitment program with no vessels currently on contract.

A minimum number of vessels from each tier are expected to be available and ready to respond, so as to meet specific timing metrics captured within contingency plans, and therefore, satisfy state regulatory requirements. Alyeska/SERVS verifies vessel availability via phone calls to the captains (check-in frequency based on contract tier) and reports this information to ADEC on a quarterly basis to ensure that available vessel count is sufficient to meet readiness requirements. ADEC is able to request this vessel availability information at their discretion.

Given response planning standard volumes and c-plan scenarios, the PWS Tanker C-Plan is much more reliant on contracted vessels to implement a response than the VMT C-Plan. For example, the tanker plan scenario requires a total of approximately 279 vessels to be operational within the first 72 hours of a spill. Having approximately 400 vessels on contract allows some flexibility with meeting this requirement and safeguards against vessels being out for repairs, captains being out of town, etc.

Accomplishments since last report: Staff recently completed a dock walk in Port Valdez using 3rd quarter 2021 availability information. For 3rd quarter, a total of 38 vessels were listed as “available” among Port Valdez based vessels; 21 of these vessels were Tier 1, and the remaining 17 were Tier 2. A total of 32 of the listed vessels were identified in the harbor or in the uplands drydock area during the walk. Staff discussed these numbers and observations further with the OSPR Committee during their early December meeting.

A 4th quarter dock walk will also be done in mid-January and staff will address both the 3rd and 4th quarter walks in a formal report that will be discussed with the OSPR Committee.

Caveats to these dock walks: 1) There is often lag time between when the paper availability report is acquired and when the walk is actually conducted, meaning what's on paper and what's observed may not match. 2) Not every vessel is typically "found," during these walks, but this does not mean these vessels do not exist or could not meet reported availability timing, etc. 3) Other vessel readiness metrics, such as crew availability, whether or not USCG safety decals are current, if HAZWOPER certifications of crew were current, etc., were not investigated. This exercise is simply about getting a snapshot of the state of the vessels themselves. 4) Council is tasked with monitoring response readiness, but we are not in a position to address contractual relationships, enforce contract terms, or force specific actions on vessel availability. PWSRCAC is simply offering these observations in an informational capacity and for the sake of having a conversation about vessel readiness, since these vessels play such a prominent role in contingency planning.

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

Accomplishments since last report: This project was initiated via budget modification at the September 2021 Board of Directors meeting. A RFP has been drafted, reviewed by staff, and is now in the process of final edits before it is released. This RFP is available [HERE](#).

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 spill 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.
- Continue developing and implementing staff training for drill monitoring.

Recent Exercises:

Andeavor and Marathon PWS Shipper's Exercise – Canceled

This exercise was postponed in 2020, due to COVID-19 and was rescheduled to October 2021. Alaska's COVID-19 surge was at its highest point in October 2021, so the decision was made to cancel this exercise and replace it with a series of workshops and trainings for the response community focusing on Prince William Sound. There will be two workshops that are in the process

of being planned. One for wildlife response and for the regional stakeholder committee. There are also going to be ICS-300 trainings and a IAP application training.

Solomon Gulch Hatchery Deployment Training – October 9, 2021

Alyeska conducted a training for the newer TCC response crew members on the sensitive area protection tactic for the Solomon Gulch Hatchery in Port Valdez.

Valdez Marine Terminal Drainage 51 Settlement Pond Deployment – August 19, 2021

Alyeska conducted a deployment exercise for containing oil in the settlement ponds for Drainage 51 on the VMT.

Upcoming Drills and Exercises

Crowley Alaska Tankers Shippers exercise – May 2022

VMT Scenario 4 Exercise – August 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 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:

- An article on the Rescue Tug Project was published by International Tug and Salvage in October. We anticipate reprints of the article to be available soon.
- The Maritime Operations Project Manager is participating in the Alaska Spatial Priorities Study, focusing on the Gulf of Alaska and Prince William Sound.
- A list of potential projects was provided to POVTS and OSPR Committee members. The Committees developed future projects that were part of the current LRP process.
- The Maritime Operations Project Manager is participating in the interagency Barry Arm project team for the Council.
- Staff is working to produce a descriptive video documenting our field trials of line throwing equipment, highlighting the study's results that underscore best techniques in their use and to help improve user experiences with the equipment.
- Staff worked with the Legislative Affairs Committee (LAC) to develop a white paper on use of AIS and radar equipment in the Sound.

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 passed 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 Glostent 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:

- Field work and the final report have been completed.
- The POVTS Committee recommended acceptance of the report by the Board.
- A contract has been completed to develop a video presentation that details the projects outcomes. There was significant photo and video documentation of the trials.
- Staff worked to develop a scope of work, desired outcomes and goals for the video.
- A contract has been completed with On Point Outreach that will develop a video presentation that details the project's outcomes.

8013 - Vessel Traffic System Use of AIS and Radar White Paper

Objectives: The Council has invited proposals to produce a white paper to evaluate, compare, and contrast the utilization of Automatic Identification System (AIS) and land-based radar in Vessel Traffic System operations. The selected contractor will ascertain and review research papers and literature related to this topic; summarize findings of this technology review; prepare a white paper on the subject of AIS and radar use; identify gaps in the research on this topic; and provide recommendations for future research. The final work product of this effort is a report detailing the results.

In its efforts to encourage legislators and the Coast Guard to replace the radar systems used in Prince William Sound, there will need to be accurate resources available that describe the issue well and are based on quality researched facts. This project is intended to provide this resource document.

Accomplishments since last report:

- Working with members of POVTS, LAC, and staff, C-CORE has completed the white paper which was accepted by the Executive Committee on August 12, 2021.
- Staff is working with Roy Jones on a cover letter for the report.

8014 - USCG Basic and Advanced Emergency Ship Handling Training

Objectives: AVTEC - Alaska Maritime Training Center (AMTC) is working to develop simulator intensive Basic and Advanced Emergency Ship Handling courses that meet the International Maritime Organization (IMO) training guidelines and are U.S Coast Guard (USCG) approved. These courses will better prepare mariners for real life situations, including emergency ship maneuvering. Much of this training will be assessment-based and will utilize AMTC's full mission bridge simulator. Most simulations will take place in Prince William Sound using the enhanced vessel database developed by AMTC.

Council will contract with AVTEC faculty to develop and implement these courses, including gaining USCG course approval. Through this work, AVTEC will be able to help close the existing knowledge gap and get people certified to fill critical infrastructure positions within the maritime industry. This project promotes the safe operation of marine vessels in Alaska and beyond.

Accomplishments since last report:

- A contract has been completed with AVTEC/State of Alaska to complete this project. Updates will be provided by AVTEC-AMTC as the project progresses.
- AVTEC has completed the first deliverable of the project, the Course Syllabus, Lesson Plans, and Instruction Manual.

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. The Science Night event typically held in December was cancelled.

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: This report was presented to the Board at the September 2021 meeting and was accepted. The contract has been closed.

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 the 2021 oil chemistry lab analyses were completed, and associated data was provided to the Council.
- The draft-final April 2020 Oil Spill Executive Summary report was reviewed by SAC and recommended for acceptance by the Board.
- SAC recommended the proposal provided by Dr. Liz Bowen of the United States Geological Survey pertaining to transcriptomics aspects of LTEMP, at an amount not to exceed \$75,600, be accepted by the Board.
- A request-for-proposals was issued pertaining to the interpretation and reporting on the 2021 LTEMP oil chemistry results. Based on the review of responses received and the original scope of work, the proposal evaluation team elected to issue an updated request-for-proposals with a revised scope of work. Proposals are due in late December, 2021.

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: Contractors from the Prince William Sound Science Center have written a report with the results of the survey conducted earlier this year. The report will be presented to the Board at the January 2022 meeting. It is recommended by the Scientific Advisory Committee that the Board accept the report as meeting the terms of the contract and ready to distribute to the public.

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 at the Valdez Marine Terminal. The notable tasks to be accomplished under this project are as follows:

- Collect monthly 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: Council staff have continued to communicate with Alyeska regarding obtaining water samples from the Ballast Water Treatment Facility. Staff provided Alyeska an updated scope of work in response to concerns related to COVID and the proposed sampling protocol. Alyeska has agreed to support the modified scope of work. Staff will be working with the contractor and Alyeska to arrange sample collection, shipment, and analysis.

9513 - Hydrocarbon Sensor Monitoring of Valdez Marine Terminal Impacts in Port Valdez

Objectives: Measure the concentration of hydrocarbons in the marine waters of Port Valdez on a continuous basis to support real-time or rapid assessment of the hydrocarbons generated by the Valdez Marine Terminal and associated tankers. The notable tasks to be accomplished under this project are as follows:

- Install a hydrocarbon sensor on the Council's weather buoy adjacent to the Valdez Marine Terminal
- Collect and review data acquired by the sensor and make the data publicly available online
- Perform annual maintenance on the sensor

Accomplishments since last report: There have been no notable accomplishments on this project since the last report.

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:

- Council interns from Cordova and Valdez completed the 2021 monitoring season for European green crab, fortunately not detecting any of this species in their traps.
- Council staff completed collection of plankton samples from three sites in Port Valdez.
- Plankton samples were shipped to the Smithsonian Environmental Research Center for analysis. The contractor has requested and been granted an extension to the originally agreed upon due date for submitting results due to a supply backorder caused by the pandemic.

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: Contracts have been finalized with Nuka Research and Planning as lead facilitator and Spill Science as a technical expert for the project. The project team met to initiate the project and establish a timeline for deliverables. Council staff communicated with Board members and contractors to schedule a facilitated workshop in March 2022 to discuss possible position statements the Council could adopt related to dispersants use in the Prince William Sound region. Board members are highly encouraged to participate in this workshop.