PRINCE WILLIAM SOUND
REGIONAL CITIZENS' ADVISORY COUNCIL

May 2022
Status Report
As of March 17, 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: 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: At the time of writing this briefing, an event in Seward is scheduled for April 14. The Council is partnering 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.

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:

- Email and call-in campaign to member entities and other interested parties regarding the ADEC regulatory reform public comment period that ended January 31, 2022.

- Alaska Forum on the Environment was held virtually February 7-11, 2022. Two sessions organized by PWSRCAC as part of the Oil Spill Prevention & Recovery Track ranked #1 and #3 for most attended.
- Tsunami Bowl National Ocean Sciences Bowl quiz competition was held in Seward**.** The Cordova team came in second! (Juneau-Douglas won.) PWSRCAC sponsored the event as usual, although unfortunately, no volunteers were able to participate as judges this year due to ongoing concerns about health and safety related to the COVID-19 pandemic.

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: Three projects completed their final reporting requirements:

- In Summer 2021, eight teachers spend six days in PWS with a Chugach National Forest ranger, with content about integrating place-based education and citizen engagement into the classroom, EVOS history, and impacts of citizen engagement. Teachers created lesson plans as an assignment after the field program, which have been provided to PWSRCAC. Thanks to Alaska Geographic for coordinating this program.
- Center for Alaskan Coastal Studies (CACS) developed a series of 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. Several segments featured topics related to the Council's mission. Ten classes from our region participated in these field trips at no cost thanks to Council funds.
- Also at Center for Alaskan Coastal Studies, a summer high school intern supported invasive species monitoring in Homer Harbor and assisted with summer educational programs and camps in summer 2021. Youth from oil impacted communities were able to participate in the camps, which included an oil impacts component, at no cost thanks to Council funds.

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 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.

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 9/10/2021 to 12/9/2021 (other than home page).

1. Columbia Glacier
2. Improvements in oil transportation since 1989
3. Regulatory Reform
4. Personal stories from EVOS
5. History of EVOS
6. Alaska oil spill laws and regulations opened for public review
7. Fishing Vessel Training
8. About Staff
9. Alaska Oil Spill Lesson Bank
10. January Board of Directors meeting

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

3620 – Connecting with Our Communities

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: As of the writing of this status update, the media training deliverable has been scheduled for Friday, April 8. Staff are working with the contractor, Helvey Communications, to plan and implement the training and complete all remaining contract work by the end of the fiscal year.

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: If budgeted for FY2023, a new intern will be recruited in the fall for a spring semester term.

5000 – Terminal Operations Program

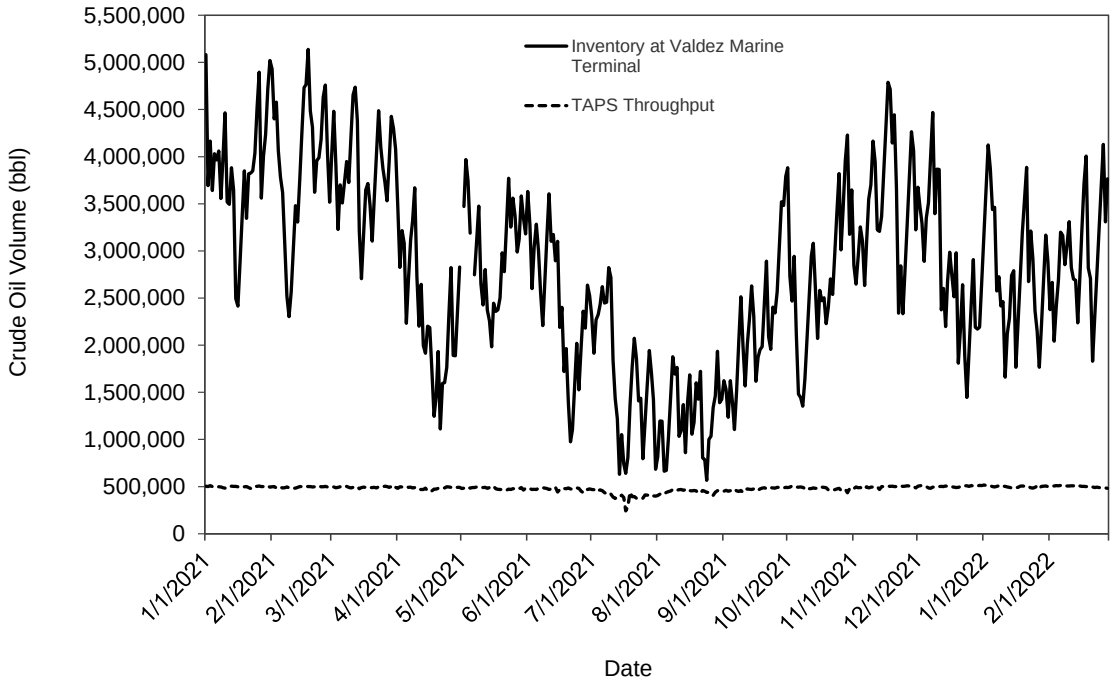
Objectives: The goal of the Terminal Operations and Environmental Monitoring Program is to prevent hazardous liquid spills and minimize the actual and potential environmental impacts associated with the operation and maintenance of the Valdez Marine Terminal.

Accomplishments since last report: 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 BWTF and sewage treatment facility. TOEM Committee members and Council staff met with staff from Geosyntec Consultants to discuss a report regarding a model that estimates oil leaking through damages (i.e., holes, cracks) in the East Tank Farm's secondary containment liner. Geosyntec provided recommendations to improve the model and report. TOEM members and staff implemented Geosyntec's recommendations by revising the model and report. The TOEM Committee reviewed the updated report in February 2022 and recommended that the Board accept the report as final and ready for public distribution.

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

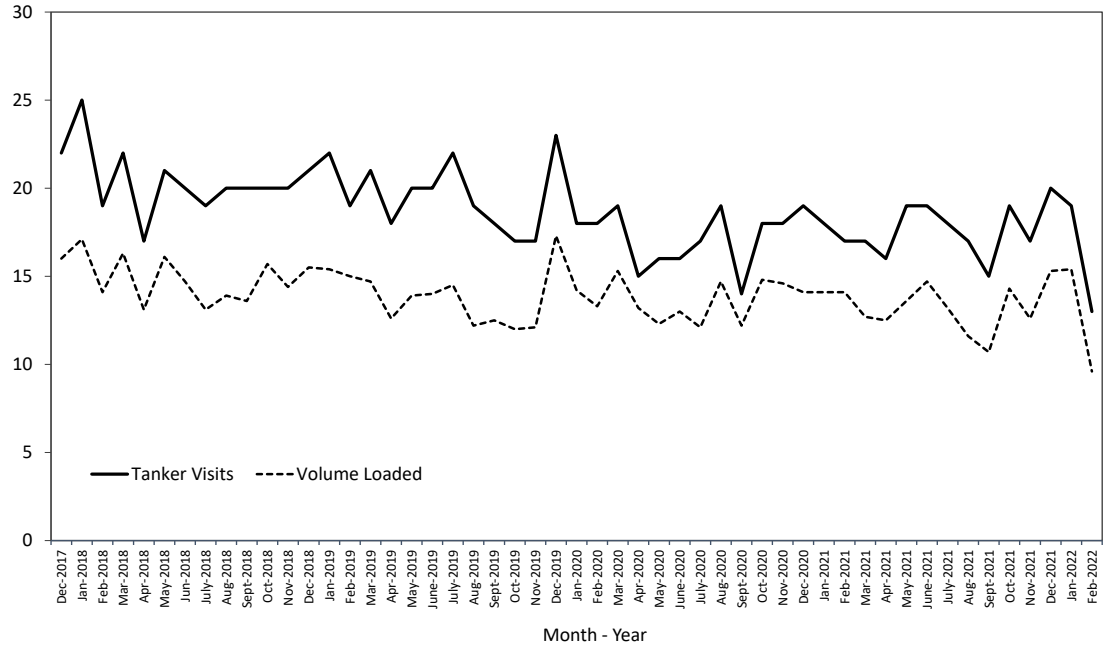
2021 Daily Oil Inventory at the Valdez Marine Terminal and Trans-Alaska Pipeline Throughput

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



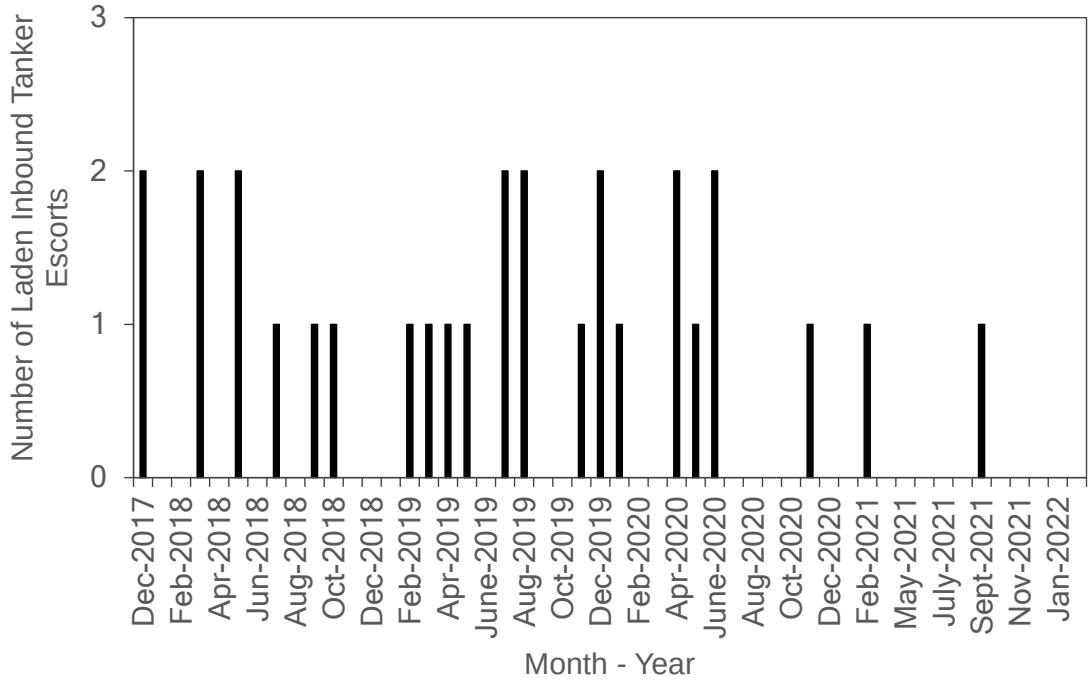
Number of tanker visits and crude oil volume loaded onto ships from VMT.

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



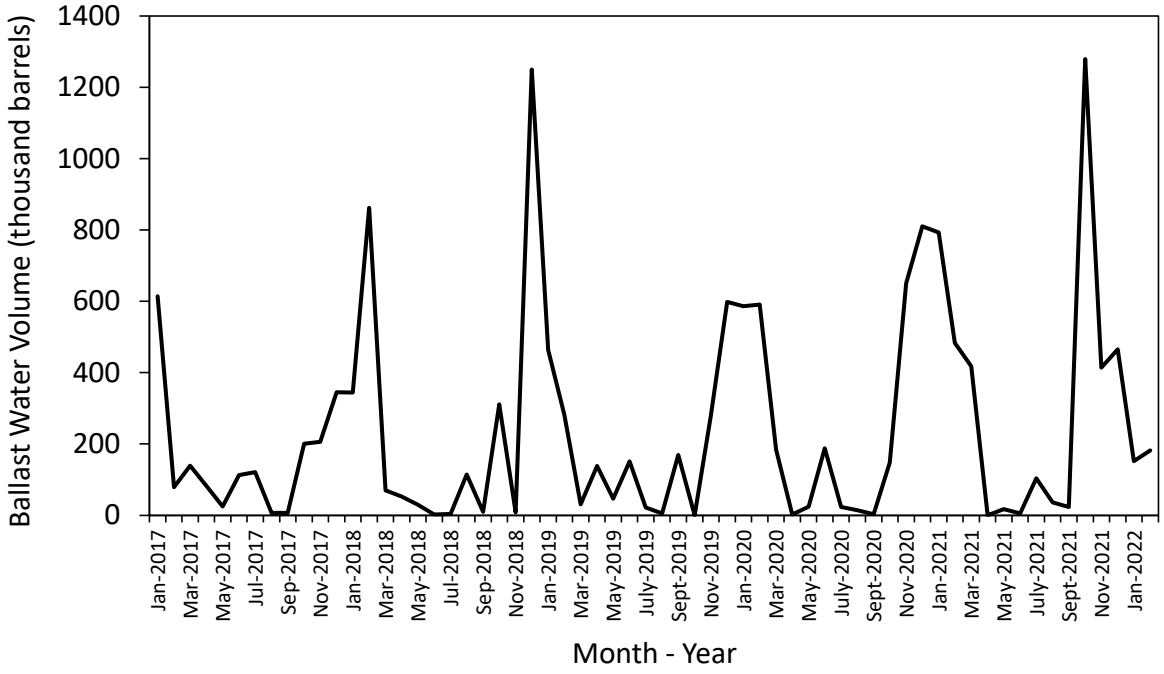
Inbound, laden tanker escorts to VMT.

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



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

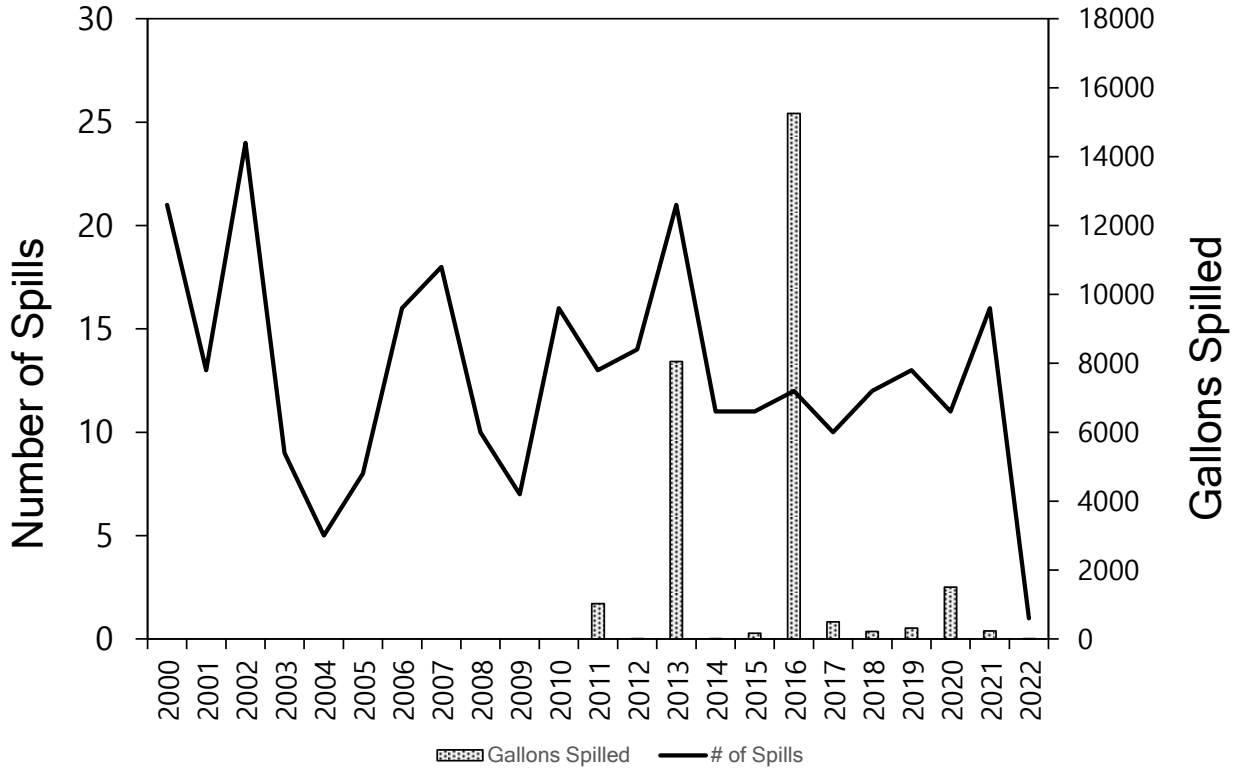
(Source: Alyeska Pipeline Service Company. Partitioned by VMT vessel arrival date, current through February 2021.)



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: Taku Engineering (the Council's contractor for this project) requested a list of Tank 8 information from Alyeska on December 14, 2021. Alyeska provided some but not all of the requested Tank 8 information on January 10, 2022. Taku Engineering preliminarily reviewed information received on January 10. Alyeska staff are working to provide the outstanding Tank 8 information.

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) completed their final report and presented its key results during the January 2022 Board meeting. The Board accepted the report as final and approved of sending a letter to the EPA in support of Alyeska's appeal.

A Council-letter was sent to the EPA supporting Alyeska's appeal of the July 2020 NESHAP-OLD rule. With that, this project is complete.

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 considering all the pertinent information in the decisions they make to safely maintain both tanks, now and in the future.

Accomplishments since last report: On February 21, 2022 Council staff and staff from Taku Engineering met with staff from Alyeska to discuss the preliminary Tank 7 recommendations the Council sent to Alyeska on December 1, 2021.

Council, Taku Engineering, and Alyeska staff are working to organize a Tank 94 site visit at the end of March 2022.

Alyeska staff are working to provide outstanding requested information pertaining to Tank 7 and 94. 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.

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 continued to perform chemical and physical analyses on the November 2019 Alaska North Slope Crude Oil sample (this was long delayed due to the lab's COVID-19 restrictions).

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 ARRT met on February 17, 2022 in Anchorage. The following agenda topics of interest to PWSRCAC include:

- Area contingency planning 101 and the role of the Area Committees
- Indigenous Knowledge & Science in Decision-Making
- BSEE Development of Response Information for Offshore Oil Spills in Area Contingency Plans

Alaska Regional Contingency Plan: The ARRT tri-chairs (USCG, EPA, ADEC) recently signed Version 2 of the Regional Contingency Plan available HERE.

Prince William Sound Area Contingency Plan (PWS ACP): The next PWS Area Committee meeting is scheduled for April 5, 2022 in Cordova. The PWS ACP is expected to go out for public comment sometime in the near future.

Arctic and Western Alaska Area Contingency Plan (AWA ACP): PWSRCAC informal comments were submitted on the AWA ACP in August.

AWA Admin Subcommittee:

- The AWA ACP plans to update its plan in 2022 which will be available for public comment sometime in the summer/fall of 2022.

- A workgroup will be formed to look at risk assessment for the coastal zone. The workgroup will identify the worst-case discharge which will be used to help drive the Preparedness for Response Exercise Program (PREP). The risk assessment will also help prioritize Geographical Response Strategies (GRS) for validation and future training, pre-deployment of equipment, etc.
- The next update to the plan will include Unmanned Aerial Systems (UAS) protocols. Rather than the protocols being a separate reference document, the information will be incorporated into the ACP.
- USCG and ADEC are working on updating and finalizing the GRS update process.
- An update to salvage and marine firefighting information will be added to the ACP by a civilian expert.

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. Comments were due on January 31, 2022. Approximately 50 comments were received from the public including individuals, organizations, Native councils, legislators, industry, agencies, and cities and boroughs. Cities that provided feedback included Kotzebue, Homer, Kenai, Seldovia, Valdez, and Kodiak; boroughs that sent in comments included Kenai Peninsula Borough, Kodiak Island Borough, and North Slope Borough. Comments can be viewed HERE.

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.

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 PWS Tanker C-Plan was approved on January 31, 2022. Conditions of approval were issued covering:

- Removal of reference to vessel of opportunity to match intended category of vessel;
- Requirement to exercise vessel decontamination services;
- Updates to fishing vessel numbers;
- Requirement to provide quarterly reports for crew training and exercises; and
- Requirement to include signed statement between Primary Response Action Contractor.

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

VMT Coordination Workgroup: The VMT Coordination Group met on March 17, 2022 and addressed updates to the workgroup charter.

Requests for Informal Review/Requests for Adjudicatory Hearing: On December 22, 2021, the Director of the Spill Prevention and Response (SPAR) Division of ADEC issued a decision on separate requests for informal reviews by both Alyeska and PWSRCAC on ADEC's November 15, 2019 approval of the VMT C-Plan. The requests for informal review focused on the secondary containment liner at the VMT.

On January 21, 2022, both Alyeska and PWSRCAC filed separate requests for adjudicatory hearings on the December 22, 2021 decision. The decision whether to grant an adjudicatory hearing is up to the Commissioner of ADEC, Jason Brune. Since filing the requests, Council staff and attorneys have been working on the steps leading to Commissioner Brune's decision. Those steps include the presentation of various arguments by the Council, Alyeska, and ADEC's SPAR Division to the Commissioner as well as to the Office of Administrative Hearings (OAH). The role of OAH is to provide Commissioner Brune with an independent recommendation on whether or not a hearing should be granted.

On March 11, 2022, ADEC Commissioner Jason Brune decided:

- To vacate the SPAR Director's decision issued on December 22, 2022.
- To remand the decision back to the SPAR Director to issue a new decision on the informal review.
- To deny PWSRCAC's and Alyeska's requests for adjudicatory hearing pending a new decision by the SPAR Director.

The adjudicatory hearing activities on the VMT C-Plan are being tracked under project 6512 – Secondary Containment Adjudicatory Hearing.

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: The report was approved by the Board on January 27, 2022. The report is in the final stages of minor editing and will be posted on the PWSRCAC website in the near future.

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 Council's 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. A meeting was held with NOAA Cooperative Observer Program (COOP), PWS Science Center and staff on March 14th to coordinate the installation of the sensor at the Port Valdez tide gauge.

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 of 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: Funding for this project was in 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 Physical Oceanographic Real-Time System (PORTS) site for Port Valdez.

Staff received notification from the SERVS duty office last week that the Valdez Duck Flats weather buoy was off station and nearing the SERVS dock on March 3rd. With help from the City of Valdez harbor staff, staff retrieved the buoy and towed it to the boat harbor for safekeeping. Staff's theory is that extreme force from a sheet of ice dragged the buoy off the flats. On Friday, March 4th, staff member Alan Sorum worked with former Board members Thane and Sharry Miller and their boat Kingfisher to re-set the buoy in place using existing anchor and ground tackle. Thank you to Thane and Sharry Miller, and to the City of Valdez harbor staff for their quick thinking and availability and help to get the buoy back in place.

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 FY 2023 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 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: A contract with the Prince William Sound Science Center has been established and a project team meeting was held February 15, 2022, with Dr. Rob Campbell to kick the project off. This project is now underway.

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 GRSs.

Accomplishments since last report: The final white paper has been drafted and reviewed by the OSPR Committee. It is being brought the Board for acceptance at this meeting (May 5-6, 2022). The OSPR Committee recommends Board acceptance of this white paper.

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 is proceeding with the research phase of this project. Their work includes a literature review, a review of similar programs nationwide for best practices, and a depth review of the Council's existing program, including stakeholder interviews. Their review, expected to be completed in June, will inform Phase II of the project to update the Council's 30-year-old Peer Listener program. Phase II was originally budgeted for this fiscal year, but the remainder of the funds are now being requested as part of a FY2023 balanced budget, as work will start on that after the research phase has completed.

When the Peer Listener program was created shortly after the Exxon Valdez oil spill, it was cutting edge for its forward-thinking way of addressing community mental health and disaster recovery. Over thirty years later, it is timely to conduct a carefully researched update. Other programs specific to supporting communities after oil spills do not exist, except where they are direct descendants of PWSRCAC efforts, such as in the Gulf of Mexico.

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 Swiss and Robida attended several meetings (via Zoom) related to Area and Regional planning. Given the "sponsorship" model that Area planners are working under, it's become important for staff to keep track of what other Area planners are discussing and working on, since this work is subject to being picked up and incorporated into other plans. Following what work is in motion has been challenging at times; these specific process concerns have also been relayed to Area Planning leadership. Meetings attended included the Inland Area Contingency Plan meeting on 2/15, the AK Regional Response Team meeting on 2/17, and the Arctic Western Alaska (AWA) Geographic Response Strategies (GRS) sub-committee meeting on 2/22. Upcoming meetings ahead of the May Board meeting include the standing monthly Arctic Western Alaska Administrative sub-committee meeting and Prince William Sound Area Contingency Plan meeting on 4/2. Robida has been specifically tracking efforts under the AWA GRS sub-committee to recommended changes to how the state manages GRSs, how updates are conducted, and how GRSs are vetted and tested. Again, given the sponsorship model, it's anticipated that these changes originating out of the AWA will affect the greater state GRS program.

Staff members Robida, Robertson, and Lally, along with PWSRCAC Board President Robert Archibald, and OSPR volunteer Dave Goldstein, attended an ICS 300 course put on by Marathon Petroleum. This was a three-day course, and all earned their ICS 300 certification after successfully completing the course test. Marathon was expected to do the 2020 large scale PWS Tanker exercise in 2021, but COVID derailed these plans. In lieu of the exercise, various workshops and trainings are (or were already) being conducted instead. These include(d) two different sessions of ICS 300, an upcoming Regional Stakeholder's Committee event slated for 4/13, work done alongside wildlife subject matter experts and Trustee Agencies on a wildlife related training video, training on the Incident Action Plan (IAP) software which Alyeska/SERVS uses to manage the paperwork side of the response, and some media and crisis communications training.

The California Dept of Fish and Wildlife, Office of Oil Spills and Response, is hosting a technology conference that's focused on low visibility oil detection, night operations, and general low visibility themes. This is a free webinar on April 12, but participants need to register in advance. Go to https://wildlife.ca.gov/OSPR, and then look for technology conference linked under the "OSPR News" section. Staff member Robida (and likely others) plan to participate in the conference, and information has been shared with the OSPR committee, Alyeska /SERVS, ADEC, and the PWS shippers.

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 and logistical needs described in these plans require contracted vessels and their trained crews in some fashion. Approximately 300 vessels are on contract and these vessels are split up into three different "tiers" based on the type of vessel, how quickly they can respond, the number of crew onboard, etc. SERVS checks vessel availability via phone calls to vessel captains to ensure that vessel counts as a whole and by tier are appropriate and meeting contingency planning assumption minimums. This information is reported to ADEC on a quarterly basis. The project goal is to compare this paper availability report against what is physically seen when walking the docks. Past similar project work has raised concerns about vessels self-reporting as "available" when actual on-the-ground observation suggests otherwise. This year's staff-led effort will focus on Port Valdez during the winter months, when this question of availability has historically been of greatest concern.

Accomplishments since last report: Staff conducted two "dock walks" in the Port of Valdez, using 3rd and 4th quarter 2021 availability reporting reports obtained from ADEC, and compared what a given vessel's self-reported availability was listed as, against what was observed in the field. Tier I vessels generally appeared response ready over both quarters, but there were some concerns about the number of Tier II vessels found on dry dock, and the large volume of snow that's been accumulating over winter which is blocking access to these vessels. The report was discussed with OSPR and approved on 2/9/2022 with the expectation that the report be distributed to Alyeska/SERVS and the regulatory community; it was transmitted as of 3/10/22. Recommendations concerning snow removal and the Tier II vessels in question, along with other recommendations were included in the report.

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. This is equipment that is called for via planning assumptions to support a large spill response effort and outfit nearshore recovery task forces beyond what is already available from the SERVS inventory. This project will document who owns this equipment,

discuss the formal equipment sharing/purchase relationships that are already in place between the various PWS shippers and the greater worldwide Oil Spill Removal Organization (OSRO) community, as well as any governmental equipment sources such as the USCG or Navy Supervisor of Salvage (NAVSUPSALV). The project will also address timing and logistical information related to movement of such equipment.

Accomplishments since last report: The previous status report for the Board noted that the RFP for this project was expected to be posted in early December and selecting and awarding a contract for this project was anticipated by mid- January.

Nuka Research and Planning was selected for this work. Project work began as anticipated in early February and continues as we speak. The first of several progress reports was recently received and work is moving along on the discussed schedule. Results and a presentation on the project are expected at the September Board meeting. Tim Robertson is the principal investigator for this effort under Nuka.

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

Recent Exercises

Cordova Rapid Response Vessel Unannounced Exercise – March 12, 2022

SERVS conducted and unannounced open water response exercise with five of their contracted Cordova rapid response vessels on March 12. The initial callout was sent at approximately 0700 and the vessels met the tug Ingot and Barge OSRB-3 in Orca Bay near Canoe Passage. The four vessels took turns towing the Current Buster 8 with the tug and barge, while the fifth vessel filled the role of safety vessel. The exercise went well and ended early in the afternoon.

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, 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. Two workshops are in the process of being planned, one for wildlife response and one for the Regional Stakeholder Committee. There were also two ICS-300 trainings held in February and march 2022, and IAP application training.

Upcoming Drills and Exercises

- VMT Winter Tactics Deployment Exercise, March 23, 2022

- Crowley Alaska Tankers Annual Tanker Exercise – May 17-19, 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: Staff completed work with the LAC Committee to develop a white paper on use of AIS and radar equipment in the Sound. PWSRCAC contracted with C-CORE to develop a White Paper describing world class standards for Best Available Technology. PWSRCAC attached this white paper to a letter that was sent to the Alaska Congressional Delegation in December 2021requesting that the Coast Guard's three radar systems get replaced in Prince William Sound.

The Maritime Ops Project Manager will be making a presentation about the Port Valdez metocean-weather buoys to the Prince William Sound Area Committee on April 5, 2022.

The idea of sponsoring a workshop on shiphandling actions taken in the lead up to a tsunami are being discussed by the POVTS Committee, City of Valdez, Dr. Bretwood Higman and staff that would involve vessel operators, local, state and federal agencies, and subject matter experts. This might be proposed as a project for inclusion in the PWSRCAC Long Range Planning process.

Work is underway to procure and install a CTD (conductivity, temperature, depth) sensor at the Port Valdez tide gauge located at the Kelsey Dock. This project is funded by a grant from the Alaska Ocean Observing System.

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 Glosten 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 and the project final report was accepted by the Board.

A contract has been completed to develop a video presentation with On Point Outreach that details the projects outcomes. There was significant photo and video documentation of the trials. The first phase of the video project, the story board and outline, has been completed. On Point Outreach is now compiling materials for the video.

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. The Executive Committee has accepted the white paper for distribution. A cover letter and the white paper were sent to the Alaska Delegation on December 30, 2021.

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: AVTEC-AMTC provided the course materials and made a presentation on the project to the POVTS committee. The committee was well pleased with the work completed and is recommending the Board accept the work as meeting the terms of the contract with AVTEC.

Staff at AVTEC-AMTC are holding open their simulator facility for tours to be conducted during the September Board meeting in Seward.

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.

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: A contract was signed with the Prince William Sound Science Center to perform the second year of winter marine bird surveys. The surveys were successfully completed in early March 2022.

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. Liz Bowen of the United States Geological Survey began lab work to analyze mussels collected after the April 12, 2020 oil spill in order to identify a comprehensive list of genes that can be used to specifically understand how spilled Alaska North Slope crude oil impacts the physiological functions of those mussels. Dr. Morgan Bender from Owl Ridge Natural Resources Consultants began interpreting the oil-chemistry lab results from the mussels, marine

sediments, and passive sampling devices collected in Port Valdez in 2021. Dr. Bender and the Owl Ridge team also began organizing the past and current LTEMP data in order to prepare it for public availability through the Alaska Ocean Observing System (AOOS) data portal. Dr. Jim Payne and Bill Driskell from Payne Environmental Consultants are advising Dr. Bender on her work.

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 report on the June 2021 forage fish surveys was presented to the Board at the January 2022 meeting. That contract has been closed. A contract for the fourth and final year of surveys anticipated for June 2022 will be initiated with the Prince William Sound Science Center this spring.

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: The Council and Alyeska have reached an agreement to carry out sample collection at the Ballast Water Treatment Facility (BWTF) in support of this project. Alyeska staff are collecting the samples and Council staff will deliver the samples to the contractor for analysis. A contract has been signed with the University of New Orleans to analyze and report on the results of samples collected at the BWTF. Sample collection is ongoing and it is expected to take several months to complete twelve sampling events.

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: Council staff have met with the University of Alaska Anchorage (UAA) and the Prince William Sound Science Center to discuss a plan to deploy the sensor on the Valdez weather buoy. UAA will be donating use of the sensor to the Council.

9520 – Marine Invasive Species

Objectives: Understand and minimize the environmental impacts of invasive species potentially arriving in the PWSRCAC region from tanker ballast water and hull fouling. Here are the notable tasks to be accomplished under this project:

- Obtain plankton samples in Port Valdez at three sites: the small boat harbor, Valdez Container Terminal, and Valdez Marine Terminal
- Perform metagenetic analysis on plankton samples to identify variability in the plankton community between locations and through time, and identify any nonindigenous species
- Interpret and report results of plankton metagenetic analysis
- Conduct monitoring of invasive crab and tunicate species in Valdez and Cordova

Accomplishments since last report: Council interns from Cordova and Valdez will check settlement plates in their respective harbors for invasive species in March. They are preparing outreach presentations for their local high school science classes to share what they learned during the internship.

Contractors at the Smithsonian Environmental Research Center and Moss Landing Marine Laboratory have analyzed the plankton samples collected during 2021 and have drafted a report of the results to present to SAC.

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: The contractor, Nuka Research, drafted an initial report summarizing the science and regulatory framework of dispersants. The report was presented to the project team and SAC for review and discussion.

A facilitated workshop was held on March 10 for Board members to discuss dispersants science, dispersants application in Alaska, and possible position statements the Council could consider. A summary of the workshop and a plan for next steps in the project will be provided at the May Board meeting.