YEAR IN Review

2021-2022



A LETTER FROM LEADERSHIP

THE COUNCIL AND ITS ROLE AS ADVISOR, PARTNER, AND RESOURCE

President Robert Archibald, City of Homer Executive Director Donna Schantz

Like many, the Council continues to navigate the changing dynamics brought by the COVID-19 pandemic. In-person meetings and events have resumed, and we work hard to improve virtual connectivity so that everyone has the opportunity to safely participate in our work. As always, our dedicated Board and committee volunteers have tirelessly donated hundreds of hours to our mission of promoting the environmentally safe operation of the Valdez Marine Terminal and associated tankers.

This report is an overview of major work from the past year, including:

Analyzing new designs for crude oil storage tank floors and corrosion protection systems, as well as ensuring the adequacy of tank secondary containment liners at the terminal (page 6)

Testing devices that deploy messenger lines between rescue
 tugs and disabled tankers (page 8)

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Providing a voice for citizens in the changes to oil spill contingency plans (page 9)

Providing input and monitoring developments regarding proposed changes to Alaska's laws and regulations on contingency plans (page 10)

Monitoring sensitive species in Prince William Sound that may be impacted in the event of an oil spill (page 13)



And much more

The Council views itself as a partner of and resource for industry and regulators. In our advisory role, we provide expertise and local knowledge with the goal of collectively protecting the place in which our communities and livelihoods depend. A true friend gives both support and pushback when needed in life. In the same way, the Council works hard to recognize the successes of industry and also provide constructive feedback to continuously improve prevention and response systems in our region.

We remain concerned with what the Council views as a steady deterioration of regulatory oversight due to federal and state budget and staff reductions at key agencies. We also see budgetary and other reductions within industry. Both are constantly pressured to do more with less. The Council believes that if these problems are allowed to persist, the people, environment, and economy of Alaska will be at higher risk of another major oil spill. Over the past year, the Council has encouraged the Alaska Legislature to ensure sustainable funding for the Alaska Department of Environmental Conservation, Division of Spill Prevention and Response (page 10). Reduced revenues have resulted in a chronic shortfall. This directly threatens the department's ability to effectively oversee the oil industry in Prince William Sound.

The Council has also been closely monitoring damage to oil storage tanks that occurred at the terminal in early 2022, and the subsequent work by Alyeska and regulators to investigate, repair the damage, and prevent a recurrence (page 6). While no substantial injuries were associated with this event, hydrocarbons were released to the atmosphere and there were operational risks associated with oxygen ingress into the tank head space. The Council believes this event was a near miss that could have had devastating consequences.

Events such as this, especially while resources are being cut back, are of primary concern to the Council and its stakeholders. We raise these issues so that appropriate and effective actions can be taken.

The prevention and response system for Prince William Sound and its downstream communities was developed through partnerships, and extensive work from members of the oil industry, federal and state regulators, legislators, and citizen stakeholders: Alaskans working together with industry to ensure an oil spill like the 1989 Exxon Valdez never happens again.

There have been vast improvements to the safe transportation of oil in the decades since the Exxon Valdez oil spill. The Council must work harder than ever to make sure the safeguards put in place to prevent another disaster are not weakened and the lessons learned are not forgotten.

The oil spill that did not happen is hard to hold up as an accomplishment, and the importance and cost associated with prevention can often be dismissed. It takes a lot of work, and the cooperative effort of many every day, to protect the place we live, work, and play.

Tough conversations must happen as we strive to maintain and improve upon the safeguards in place. Our history of success means that citizens must stay active and maintain partnerships with industry and regulators to keep this system working.

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BRINCE WILLIAM SOUND

WHO WE ARE



The Council is a voice for citizens affected by decisions made by the oil industry in Prince William Sound.

Formed after the Exxon Valdez oil spill, the Council's 18 member organizations are communities affected by the spill, as well as Alaska Native, aquaculture, commercial fishing, environmental, recreation, and tourism groups.

THE COUNCIL'S STRUCTURE

The Council's structure and responsibilities stem from two documents:

- 1. The contract with Alyeska Pipeline Service Company. Alyeska operates the Trans Alaska Pipeline System and the Valdez Marine Terminal. This contract guarantees the Council's independence from industry while also providing the operating funds for the organization.
- 2. The Oil Pollution Act of 1990. The Act requires citizen oversight councils for Prince William Sound and Cook Inlet. The councils promote partnership and cooperation among local citizens, industry, and government; build trust; and provide citizen oversight of oil terminals and tankers.





OUR RESPONSIBILITIES

The Council works to prevent pollution and other harm from the transportation of crude oil through Prince William Sound and the Gulf of Alaska by monitoring, reviewing, and providing advice on:

- Oil spill prevention and response plans prepared by Alyeska and shipping companies moving oil through the region
- The environmental protection capabilities of Alyeska and the tanker operators
- The environmental, social, and economic impacts of Alyeska and tanker operations
- Government policies, permits, and regulations relating to the oil terminal and tankers

The Council regularly retains experts to conduct independent research and technical analysis on issues related to oil transportation safety.

The contract with Alyeska also calls for the Council to increase public awareness of the company's oil spill response, spill prevention, and environmental protection capabilities, as well as the actual and potential environmental impacts of terminal and tanker operations.



The Council regularly retains experts to conduct independent research and technical analysis on issues related to oil transportation safety.

OUR FUNDING

The Council was initially funded at \$2 million a year. The funding is renegotiated every three years; current Alyeska funding is approximately \$3.89 million a year.

Although the Council works closely with and is funded chiefly by Alyeska, the Council is an independent advisory group. The contract is explicit: "Alyeska shall have no right...to have any degree of control over the formation or operation of the corporation."



PREVENTING AN OIL SPILL



Preventing an oil spill is the most effective way to protect human health and the environment. The spill prevention system in Prince William Sound is among the best in the world. The Council works to keep it that way by reviewing all aspects of the system.

MONITORING WEATHER

The harsh environment in Alaska impacts safe crude oil transportation. The Council studies wind, waves, currents, and other environmental factors that can affect the ability to prevent, respond to, contain, and clean up an oil spill.

Understanding Weather and Sea Currents in Our Region

The Council supports two weather stations in Prince William Sound and the Gulf of Alaska. Information is collected via the Prince William Sound Weather Station Network, developed and maintained by the Prince William Sound Science Center, and co-funded by the Council. Data is available through the Alaska Ocean Observing System.

Port Valdez Weather Buoys

The Council maintains two weather buoys in Port Valdez: one near the terminal, the other near the Valdez Duck Flats. These buoys measure ocean currents, wind, and waves among other factors. The Council works with the Alaska Ocean Observing System and the National Oceanic and Atmospheric Administration's PORTS® (Physical Oceanographic Real Time System) to share the data.

These buoys have now been collecting data for three years and are expected to continue to do so for at least another two. While it is too early to confirm weather patterns, there is enough data available to start to analyze trends.

The full report is available on our website at: tinyurl.com/PWSBuoyData2021



OPERATIONS AT THE TERMINAL

Monitoring of Snow Damage to Crude Oil Storage Tank Vents

The Council has been monitoring efforts to address the substantial tank vent damage that occurred at the Valdez Marine Terminal in February and March of 2022, and the subsequent work by Alyeska and state and federal regulators to investigate this incident, repair the vents, and prevent a reoccurrence.

As Alyeska identified tank pressure/vacuum vents damaged by snow and worked to plug them in various ways, an unknown but likely significant amount of hydrocarbon vapors was released to the atmosphere. Such vapors can be harmful to the environment, pose a threat to human health and welfare, and, depending on the circumstances, can increase the risks of a fire or explosion. Alyeska recognized this and worked to mitigate health-related harm to those working to remove snow from the tank tops, as well as taking steps to minimize other risks. While no substantial injuries were associated with this event, and no fire or explosion occurred, the Council believes this event was a near miss and could have resulted in devastating consequences. The subsequent actions taken by Alyeska, and state and federal regulators, will be critical to ensure that such snow damage does not occur to the tank vents or other critical infrastructure at the terminal in the future.



Prince William Sound is beautiful, but the reality is that weather can often be hazardous. Strong winds, high waves, and dense fog can threaten the safety of oilladen tankers and greatly reduce the ability to respond in the event of a spill.



Crude oil travels down the trans-Alaska pipeline to the Valdez Marine Terminal, where it is stored in vast tanks until it can be loaded onto tankers. Each tank encloses approximately 1.2 acres and can hold over 21 million gallons of oil. Tank 8, discussed in this section, is in the middle of the right row of tanks.

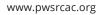
Review of Tank 8 New Floor and Cathodic Protection System Design

Alyeska plans to replace crude oil storage Tank 8's steel floor and buried cathodic protection system in 2023. The cathodic protection system is designed to limit corrosion on the tank's floor. The Council funded a study reviewing the new designs, which found that the new floor design was in alignment with industry best practices, but the new cathodic protection system design could be improved with several changes.

The final report is available on the Council's website: tinyurl.com/OilTank8

Ensuring the Adequacy of Secondary Containment Liners

The steel crude oil storage tanks at the Valdez Marine Terminal are required to have secondary containment systems around them in order to protect ground and surface water from







The secondary containment system surrounding the tanks includes an asphalt liner, buried under several feet of gravel and dirt. From 2014-2017, Alyeska dug up a section of the liner to test for damage.

contamination in the event of an oil spill. Part of those systems is a liner that is supposed to hold spilled oil until it can be cleaned up. Investigations from 2014-2017 showed that there were cracks and holes in the liner, indicating it may not prevent water contamination if a spill occurred from one of the large crude tanks. The Council has asked the Alaska Department of Environmental Conservation (ADEC) to take steps to ensure the liner would prevent such water contamination. In May 2022, ADEC issued a revised decision detailing how Alyeska must ensure the liner will adequately contain a spill; Alyeska is working to meet ADEC's requirements.

Additionally, the Council is contracting with a geotechnical engineering expert to identify nondestructive methods to evaluate the secondary containment liner and determine how much of the liner should be tested in order to have confidence in the results.

More information on this work is available at: tinyurl.com/LeakModel The Council is conducting and sponsoring research to support ADEC and Alyeska's efforts to ensure liner adequacy, including development of a liner leak model and report.

OPERATIONS ON THE WATER

Radar Outage in Prince William Sound

The Council has been monitoring the U.S. Coast Guard's radar system for the last few years. Occasional outages have been reported due to obsolete equipment. During outages, the Coast Guard uses a combination of VHF radio, cameras, and Automatic Identification System (AIS) to track vessels.



AIS is a map-based online monitoring system that receives information transmitted by vessels, such as position, course, and speed. The Council has been concerned about relying too heavily on AIS, as only vessels over 20 meters are required to have AIS equipment installed. Smaller vessels or objects (e.g., fishing vessels, recreational boats, icebergs) will not be visible to the Coast Guard's Vessel Traffic System personnel responsible for ensuring safe navigation in Prince William Sound.

The Council conducted a review that compared radar and AIS to better understand how these systems work together to prevent accidents.

In addition to the AIS/radar report, the Council sent a letter to the members of the Alaska Congressional Delegation on December 30, 2021, requesting their support in replacing the Coast Guard's radar systems in the three locations in Prince William Sound to help prevent another major oil spill. This letter highlighted the importance of the Coast Guard having fully operable radar systems in the Sound and led to the temporary repair of the decades-old systems that need to be replaced.

Radars covering Port Valdez and the Valdez Narrows have been more reliable recently due to the temporary repairs. However, one of the two radar systems installed at the Potato Point site failed in the summer of 2022 and remains inoperable. The Coast Guard is planning an assessment of its radar systems nationwide.

The AIS/radar report is available on our website: tinyurl.com/AISradar

AIS is a map-based online monitoring system that receives information transmitted by vessels, such as position, course, and speed.





Researchers prepare to test one of the line throwing devices during field trials.

Testing Devices Used to Deploy Messenger Lines

Passing a messenger line is the first step in setting up a tow line between a rescue tug and a tanker in distress. The lighter-weight messenger line helps responders connect the heavy tow lines. This can be a difficult and dangerous task. Last year, the Council sponsored a study of devices used to deploy a messenger line. This year, field trials testing various devices were conducted as follow up to recommendations included in the original study. These field trials were to test the devices' ease of use, effectiveness, reliability, and safety. Results will be used to develop a set of recommended practices that will be shared with industry and regulators.

The full report on the trials is available on our website: tinyurl.com/LineThrowing

Course on Shiphandling Customized for Alaska

This year, the Council commissioned AVTEC Maritime Training Center in Seward, Alaska, to develop a shiphandling course specific to Alaska. This new coursework will better prepare mariners for handling vessels in Prince William Sound and Alaska. The scenarios are based on real activities and use high-resolution data previously funded by the Council.

AVTEC was notified in April 2022 that both the basic and advanced shiphandling courses received approval by the U.S. Coast Guard and will be added to the AVTEC schedule starting in the fall.



PLANNING & PREPARING FOR AN OIL SPILL

The Council works hard to help prevent spills. It also monitors and supports the extensive planning required to ensure an efficient and effective response if one occurs.

OIL SPILL CONTINGENCY PLANS

Alyeska and the companies who ship oil from the Valdez Marine Terminal are required by state and federal law to prepare detailed oil spill contingency plans.

On behalf of the public, the Council monitors changes to these plans. Significant resources are devoted to help ensure the plans remain adequate.

Alaska requires these plans be updated every five years. Changes between those updates require an amendment and major amendments require a public review process.

Oil Spill Planning for the Copper River Delta and Flats

The Council commissioned a report documenting the current state and history of developing sensitive area protection strategies (also known as geographic response strategies or GRS) for the Copper River Delta and Flats region. The goal of this project was to better understand what drove the development of these past strategies, what exercise activity and training had occurred in this region to date, and what content within the Prince William Sound Area Contingency Plan's "Copper River Delta and Flats GRS" addendum is still relevant today. The Council would like to see this information updated and

Oil spill contingency plans protect Alaska because they contain details on how companies prevent oil spills and plan to clean it up if prevention measures fail.





once again referenced in Prince William Sound Area contingency planning documents.

Read the final report on our website: tinyurl.com/ CRDFplanreport

THE TANKER PLAN

The contingency plan for tankers in Prince William Sound underwent its five-year renewal. Changes include a new contractor for aerial dispersant application and the increased use of foreign oil tankers. One of the Council's top concerns regarding foreign flagged tankers is whether or not their crews understand the operating environment and systems in our region. This was highlighted by the near miss incident that took place with the tanker Stena Suede in 2021.

The plan was approved on January 31, 2022. Among other comments, the Council:

- Recommended clarifications and additional information on oil properties, equipment for nearshore task forces, using cameras for spilled oil detection, and the use of the term "vessel of opportunity" for vessels under contract, among others.
- Recommended demonstration of new contractor's capability to provide vessel decontamination services.
- Noted key issues left unresolved from previous renewals including planning for spills that extend outside of Prince William Sound, protecting sensitive areas, and realistic maximum operating limitations.

The Council's full comments can be viewed on our website tinyurl.com/TankerComments

Documenting the History of the Tanker Contingency Plan

This year, the Council commissioned a report that documented the history of the oil discharge prevention and contingency plan for Prince William Sound oil tankers. The comprehensive report chronicles the long-term history of how contingency planning issues were identified and addressed during approvals, how contentious issues were resolved, and what issues remain outstanding. It also highlights significant changes and trends over time.

The report can be viewed on the Council's website: tinyurl. com/TankerPlanHistory

ALASKA'S LAWS AND REGULATIONS ON CONTINGENCY PLANS

In 2019, ADEC requested public input on Alaska's laws and regulations on contingency plans. The Council has continued to monitor developments on this initiative. ADEC's proposed changes, stemming from that input, have been released and were open for public comment from November 2021 through January 2022.

During its review, the Council noted some positive changes. However, the Council also identified concerns, the most significant of which are:

- · Reduction in drills and exercises
- Removal of a requirement for a conference that helps assure that technology is up to date
- Replaced requirement to notify citizen councils with notification via a listserv
- Changes to requirements for towing equipment required for tankers in our region

Revised regulations are expected in fall 2022. If any new changes identified are substantive, a re-notice could be triggered requiring a second public comment period.

Full comments from the Council can be found on our website: tinyurl.com/RegComments

ISSUES AFFECTING SPILL PREVENTION AND RESPONSE

Besides providing input on contingency plans, the Council tracks other issues that could impact prevention and response.

State Funding for Spill Prevention and Response

The Council continued to follow a bill for sustainable funding for ADEC's Division of Spill Prevention and Response, or SPAR. Most of the bill would have funded transportation and highway maintenance. However, one of the proposed increases, a half a penny per gallon increase to a refined fuel surcharge, would provide the revenue needed to maintain an adequate prevention program for the state and its ability to respond to major oil spills.

While the bill unfortunately did not pass out of the state Senate Finance Committee, the Council will continue to advocate for sustainable funding for SPAR in the future.



Fishing vessel crews from Seward practice on-water response tactics during annual training.

ALWAYS READY **TO RESPOND**

The Council, industry, and regulators work hard to prevent oil spills, but the risk cannot be eliminated entirely. A quick and effective response takes more than volumes of carefully written and reviewed contingency plans. It requires equipment, trained people, and a management system to implement the plan.

The Council monitors the operational readiness of Alyeska's Ship Escort Response Vessel System, or SERVS, and the tanker companies. The Council also works hard to stay prepared as an independent monitor and as a voice for citizens affected by a spill.

OIL SPILLS AND INCIDENTS

The Council monitors spills and other incidents that occur from the Valdez Marine Terminal and tanker operations. Fortunately, because spill prevention efforts in Prince William Sound are among the best in the world, significant events are rare. More common are minor spills, usually a teaspoon or less, related to normal daily operations. The Council tracks these incidents and provides advice where possible to prevent small problems from becoming larger issues.

From July 2021 through June 2022, a total of ten spills were reported. The majority were relatively small amounts of petroleum products such as hydraulic fluid or lubricating oil. In October of 2021, about ten gallons of 3% Aqueous Film Forming Foam (AFFF) solution mixed with about 500 gallons of seawater discharged from the



Valdez Marine Terminal West Metering foam shed. The mixture then flowed into a ditch, where it was cleaned up using hand tools and vacuum trucks. In November of 2021, 20 gallons of AFFF concentrate spilled from the foam shed in the terminal East Metering building. About ten gallons spilled to land and ten gallons spilled to containment where it was cleaned up using hand tools. An unknown but likely significant amount of hydrocarbon vapors was released to the atmosphere when oil storage tanks were damaged by snow and ice in early 2022 (page 6).

MONITORING DRILLS AND EXERCISES

The Council observes and monitors spill response drills, exercises, and trainings that test aspects of the oil spill contingency plans for the terminal and tankers. Some are small (focusing on specific pieces of equipment or tactics), but a few are large, involving a hundred or more personnel and a large amount of response equipment. These events help to ensure responders are ready and able to act quickly in the event of an actual spill.

Major Annual Spill Exercises

Council staff attended 13 drills and exercises this past year, including:

- An emergency towing exercise with the tanker
 Polar Endeavour
- Three sensitive area protection trainings in Port Valdez
- The annual Prince William Sound Shipper's large-scale tabletop exercise with Crowley Alaska Tankers
- Two equipment deployment exercises at the Valdez Marine Terminal
- Two open water response exercises and two nearshore response exercises
- A lightering equipment training with the lightering barge Mineral Creek

During the pandemic, exercises and trainings were modified and Council staff and regulators could not observe as normal. Over this past year, restrictions have been eased and more exercises have been observed as a result.

Large-Scale Hybrid Drill

The largest exercise in the past year was the annual Prince William Sound shipper's exercise conducted by Crowley Alaska Tankers in May of 2022. This drill combined a physical incident command post at the SERVS Valdez Emergency Operations Center with the Microsoft Teams platform for remote participants. Combining physical and virtual aspects within an exercise remains a challenge, but one that those involved are working to address as more of these types of hybrid exercises are conducted.

Annual Fishing Vessel Training

The annual training for fishing and other contracted vessels once again occurred with modifications related to precautions against COVID-19. Instead of in-person classes, lectures were pre-recorded and accessed online. Equipment instruction, normally done on land, instead turned into more handson time with equipment on the water. The Council understands the current need for safety precautions but hopes that future yearly trainings can return to more of the direct teacher-student interactions that have made the program so effective.



A fishing vessel practices pulling oil spill boom in formation during this May 2022 exercise near Cordova.



PROTECTING OUR REGION



Per directives in the Oil Pollution Act of 1990, the Council monitors terminal operations and maintenance to help minimize the risk of spills and reduce the facility's discharge or emissions of water and air pollution to the lowest reasonable levels. The Council also conducts scientific research on risks to the environment from tanker and terminal operations, documents levels of pollution, and explores new technologies and the costs and benefits associated with their use.

LONG-TERM ENVIRONMENTAL MONITORING

Every year, the Council collects environmental samples from Port Valdez and has them chemically analyzed for oil contamination related to the operation of the Valdez Marine Terminal and associated tankers.

Regular Sampling Results Show "Low Environmental Impact"

As part of the Council's annual Long-Term Environmental Monitoring Program, mussels, marine sediment, and special plastic strips



(called passive sampling devices) were analyzed to monitor oil contamination. The most recent program report concluded that, "In 2021, a low environmental impact from hydrocarbons derived from the Valdez Marine Terminal is expected, even for sensitive species like early life stages of herring and salmon."

The final report is available on the Council's website: tinyurl.com/ LTEMP2021

Genetic Response in Mussels to April 2020 Terminal Spill

This year, the Council worked with researchers to analyze mussel samples for oil concentrations and genetic response to the April 2020 oil spill at the terminal, both near and far away from the spill site.

When a mussel is exposed to a chemical irritant such as crude oil, certain genes respond, triggering mRNA to carry a message to the mussel's cells. That message tells the cells how to deal with the irritant. The scientists looked for the genetic and chemical response patterns unique to crude oil. The analysis showed that both oil concentrations and gene response spiked then decreased with time; however, the genetic response peaked at a later time. The study demonstrated the merits of combining chemistry and genetics to evaluate the extent and persistence of spill effects. The Council is pursuing further research in this area.

More information can be found on our website: tinyurl.com/ MusselGenes

MONITORING SPECIES IN OUR REGION

Monitoring for Marine Invasive Species

The Council monitors for invasive species introduced by Prince William Sound oil tankers. These tankers visit ports outside of Alaska, particularly in California and Washington, that contain invasive species of concern to our region. Tankers can carry invasive species in ballast water or attached to their hulls. If these species become established once introduced to a new location, they can harm local, native species and their habitat.

The biggest concerns are the European green crab, a voracious predator that has invaded ports in the Pacific Northwest in the U.S. and Canada, and tunicates, or "sea squirts," that can blanket other organisms. Additional threats include bryozoans, barnacles, copepods, snails, and other marine invertebrates.

To date, European green crab have not been found in either Port Valdez or Cordova. No invasive tunicates were detected during routine monitoring in 2021.

Additionally, from April to September 2021, Council staff conducted 231 plankton tows at three sites in Port Valdez at various times and stages of the tide. The samples were genetically analyzed to detect changes in the zooplankton community and to detect invasive species.

Surveys of Marine Bird and Forage Fish Species

The Council continued its work monitoring sensitive species in Prince William Sound that may be impacted and could use additional protection during an oil spill response. The second of three anticipated years of at-sea marine bird surveys took place in March 2022, identifying important wintertime nearshore habitat and areas of high bird density. The fourth and final year of aerial forage fish surveys was conducted in June 2022. "Forage fish" are species that are preyed on by larger predators, and include Pacific herring, Pacific sand lance, capelin, and candlefish.

The final reports from the 2021 marine bird and forage fish surveys can be viewed on our website: tinyurl.com/WinterBirds2021 and tinyurl.com/ ForageFishObservations

HOW TO IDENTIFY EUROPEAN GREEN CRABS

This species isn't always green. You can identify these invaders by the five spines on each side of the shell. Report sighting to the Alaska Department of Fish and Game at 1-877-INVASIV.



IN OVERSIGHT

The Council cultivates relationships with its 18 member entities, which include communities within the region affected by the 1989 Exxon Valdez oil spill as well as aquaculture, commercial fishing, environmental, Alaska Native, and tourism groups.

COMMUNITY OUTREACH

In normal years, staff and volunteers visit communities in the Council's region to host receptions and participate in events that increase citizen engagement in our work.

Adjusting to the current pandemic conditions, the Council's outreach efforts took a hybrid approach by participating in both in-person and virtual events throughout the year. Among these:

• Hosting in-person booths at Salmonfest in Ninilchik, the Alaska Association of

Harbormasters and Port Administrators (AAHPA) Conference in Anchorage, and ComFish in Kodiak.

- Organizing two virtual sessions at the Alaska Forum for the Environment, including the first and third most attended sessions of the event.
- Sponsoring the Prince William Sound Natural History Symposium and presentation of two talks at the event, including one by Council intern Mia Siebenmorgen Cresswell on European green crab monitoring efforts. A student track at the event, designed to engage youth of the region, was successfully piloted through one of the Council's Youth Involvement project contracts.
- Coordinating a public listening session about food safety after an oil spill with Nuka Research and the Oil Spill Recovery Institute.

THE OBSERVER NEWSLETTER

Our regional newsletter covers Council activities, developments in the oil transportation industry, and news about policy and operational issues related to marine oil transportation in Prince William Sound.

Subscribe by email at www.tinyurl.com/TheObserverPWS.





ENGAGING THE NEXT GENERATIONS TO PROTECT PRINCE WILLIAM SOUND

Funding Youth Education Programs

The Council supports our partners' youth programs on topics related to the Council's mission. These hands-on programs teach all ages about oil spill prevention and response, citizen oversight, response capabilities in Prince William Sound, and more.

Interns Help Council Achieve Our Mission

The Council recruits interns to complete projects that incorporate career development opportunities.



Dillon Fowler, the Council's Valdez intern, perfects the art of tying a bowline as he secures a green crab trap.

Invasive Species Monitoring

The longest standing internship, monitoring Cordova nearshore areas for invasive green crab and tunicates, had two youth participants from Cordova for the 2021 summer monitoring season: Maggie Herschleb and Levi Pearson. In Valdez, the Council welcomed intern Dillon Fowler to conduct monitoring previously led by staff and local science classes.

Alaska Oil Spill Lesson Bank

Returning intern Rosie Brennan completed extensive outreach to the region's educator community to promote the Council's Alaska Oil Spill Lesson Bank. The K-12 lessons, which meet state and national science standards, teach students about the importance of preventing pollution from crude oil through content in science, math, literature, engineering, and art.

The Lesson Bank is available online: www.pwsrcac.org/lessons

GOVERNMENT RELATIONS

The Council monitors state and federal administrative and agency actions, legislation, and regulations that relate to terminal and



Students in Whittier were excited to participate in the city's first BioBlitz. A BioBlitz is an event that focuses on finding and identifying as many species as possible in a specific area over a short period of time. At a BioBlitz, scientists and community members work together to get a snapshot of an area's biodiversity. These snapshots are helpful to document if or when the area is invaded by non-native species.

tanker operations or to oil spill prevention and response. To help track developments and formulate legislative priorities and responses, the Council retains state and federal legislative monitors under contract.

Over the past year, the Council's Legislative Affairs Committee focused on:

- The Oil and Hazardous Substances Release Prevention and Response Fund
- ADEC's initiative soliciting input for potential changes to Alaska's laws and regulations on contingency plans
- Proposed revisions to the formerly introduced and since expired federal Oil Spill Liability Trust Fund bill
- Coast Guard Vessel Response Plan Alternative Planning Criteria provision in the Don Young Coast Guard Authorization Act of 2022
- Concerns about contamination from perfluoroalkyl and polyfluoroalkyl substances, also known as PFAS, stored at the Valdez Marine Terminal
- Support for a house bill that would form an advisory council to help manage invasive species across agencies and jurisdictional boundaries

RECERTIFICATION

The U.S. Coast Guard certifies the Council as the federally approved citizens' advisory group for Prince William Sound, pursuant to the Oil Pollution Act of 1990. Under the annual recertification process, the Coast Guard assesses whether the Council fosters the general goals and purposes of the Act and is broadly representative of the communities and interests as envisioned in the Act.

The Council has been the certified group since 1991.





BOARD & EX OFFICIO MEMBERS

Each member entity chooses one representative to our Board. The lone exception is Valdez, which has two representatives, giving our Board a total of 19 members. The Board meets three times a year. While all Council meetings have been held virtually during the pandemic, normally the January meeting is in Anchorage, the May meeting is in Valdez, and the September meeting rotates among other member communities in the oil spill region. Members are current as of June 30, 2022.

BOARD OF DIRECTORS

Officers:



Robert Archibald *President* City of Homer



Robert Beedle Member-at-large City of Cordova



Amanda Bauer Vice-President City of Valdez



Ben Cutrell Member-at-large Chugach Alaska Corporation



Bob Shavelson Secretary Oil Spill Region Environmental Coalition



Angela Totemoff Member-at-large Community of Tatitlek



Wayne Donaldson *Treasurer* City of Kodiak



Members:



Mike Bender City of Whittier



Nicholas Crump Prince William Sound Aquaculture Corporation



Patrick Domitrovich City of Seward



Mako Haggerty Kenai Peninsula Borough



Luke Hasenbank Alaska State Chamber of Commerce



Dorothy M. Moore City of Valdez



Curtis Herschleb Cordova District Fishermen United



Michael Vigil Chenega Corporation & Chenega IRA Council



Elijah Jackson Kodiak Village Mayors Association



Aimee Williams Kodiak Island Borough



Melvin Malchoff Jr. Port Graham Corporation



Dr. Kirk Zinck City of Seldovia

Ex Officio Board Members (Non-Voting)

AK Dept. of Environmental Conservation Allison Natcher

AK Dept. of Fish & Game/Habitat Division Lee McKinley

AK Dept. of Natural Resources Anthony Strupulis

Bureau of Land Management Greg Bjorgo

National Oceanic & Atmospheric Administration Catherine Berg

Oil Spill Recovery Institute W. Scott Pegau Div. of Homeland Security & Emergency Management J.J. Little

U.S. Coast Guard/Marine Safety Unit Valdez CDR Patrick Drayer

U.S. Dept. of the Interior Vacant

U.S. Environmental Protection Agency Torri Huelskoetter

U.S. Forest Service Steve Namitz



www.pwsrcac.org

ADVISORY COMMITTEES

Five standing committees advise the Board of Directors and Council staff on projects and assist staff on individual projects. These committees are made up of interested citizens, technical experts, and members of the Council's Board.

Current as of June 30, 2022

Scientific Advisory

Mission: Promote the environmentally safe operation of the terminal and tankers through independent scientific research, environmental monitoring, and review of scientific work

Davin Holen	Wayne Donaldson
Chair	Kodiak*
Anchorage	Roger Green
Sarah Allan	Ontario
<i>Vice-Chair</i>	John Kennish
Anchorage	Anchorage
Ana Aguilar-Islas	Debasmita Misra
Fairbanks	Fairbanks
Wei Cheng	Dorothy Moore
Anchorage	Valdez*

Terminal Operations and Environmental Monitoring

Mission: Identify actual and potential sources of episodic and chronic pollution at the Valdez Marine Terminal

Amanda Bauer Chair Valdez*

Patrick Tomco Anchorage

Harold Blehm

Mikkel Foltmar Vice-Chair Anchorage

Valdez Steve Goudreau

Valdez

George Skladal Anchorage

Tom Kuckertz Anchorage

Matt Cullin Anchorage

Information and Education

Mission: Foster public awareness, responsibility, and participation through information and education

Andrea Korbe

Savannah Lewis

Aimee Williams

Whittier

Anchorage

Kate Morse

Cordova

Kodiak*

Trent Dodson Chair Kenai

Cathy Hart Vice-Chair

Anchorage

Jane Eisemann Kodiak

Ruth E. Knight Valdez

Oil Spill Prevention and Response

Mission: Minimize the risks and impacts associated with oil transportation through strong spill prevention and response measures, adequate contingency planning, and effective regulations

Jim Herbert Chair Homer John LeClair Vice-Chair

Anchorage **Curtis Herschleb**

Cordova* David Goldstein

Whittier

Port Operations and Vessel Traffic Systems

Mission: Monitor port and tanker operations as well as the vessel escort system in Prince William Sound and recommend improvements in the vessel traffic navigation system

Steve Lewis Chair Anchorage

Vice-Chair

Valdez*

Amanda Bauer

Robert Archibald Homer*

Max Mitchell Homer

Gordon Terpening Homer

* Member of Board of Directors



Gordon Scott Girdwood

Jerry Brookman Kenai

Mike Bender Whittier*

Robert Beedle Cordova*

Skye Steritz Cordova

PWSRCAC YEAR IN REVIEW

Staff member Austin Love collects samples for the Council's Long-Term Environmental Monitoring Program.

STAFF

Executive Director Donna Schantz

Executive Assistant Jennifer Fleming

Administrative Assistants James Holzenberg Jaina Willahan

Project Manager Assistants Hans Odegard Nelli Vanderburg

Project Managers

Amanda Johnson Austin Love Roy Robertson Jeremy Robida Alan Sorum Linda Swiss Danielle Verna

Outreach Coordinator Betsi Oliver **Financial Manager** Ashlee Hamilton

Financial Manager Emeritus Gregory Dixon

Director of Administration KJ Crawford

Director of Communications Brooke Taylor

Director of Programs Joe Lally





PHOTO CREDITS

Key - (t) top, (b) bottom, (c) center, (r) right, (l) left

Cover photo: Staff member Danielle Verna collecting blue mussels from a beach in Port Valdez. The mussels are later sent to a lab, where they are analyzed for the presence of hydrocarbons. More details about this work for the Council's Long-Term Environmental Monitoring Program on page 13. Photo by Austin Love.

Page 1, 4, 5, 6(t), 9, 12: Jeremy Robida

Page 2: KJ Crawford

Page 3: Amanda Johnson

Page 6(b): Linda Robinson Page 7: Nelli Vanderburg Page 8: Alan Sorum Page 11, 14(t): Cathy Hart Page 13: Lisa Kaaihue Page 14: Dan Gilson Page 15: Courtesy of Betsi Oliver

Page 16: (l) Austin Love, (r) U.S. Forest Service/ Chugach National Forest

Page 20 and 21: Danielle Verna



PAPERS & **Reports**

2020 Updates to 40 CFR 63, Subpart EEE – National Emissions Standards for Hazardous Air Pollutants for Organic Liquids Distribution (Non-Gasoline) and support letter (report and letter). John Beath Environmental, LLC. and Citizens' Council. January and March 2022. Document numbers: 557.431.220113.JBEneshapVMT and 557.105.220307.EPAnespapAPSC

2021 Prince William Sound Forage Fish Observations (report). W. Scott Pegau, Prince William Sound Science Center. September 2021. Document number: 900.431.210921. PegauForageRpt

Comments and requests for additional information on the Prince William Sound Tanker Oil Discharge Prevention and Contingency Plan (renewal) (letters). Citizens' Council. July and December 2021. Document numbers: 651.105.210722. DECrfaiTkrPln and 651.105.211202.DECrfaiTkrPlnR2

Comments on the Alaska Regional Contingency Plan Public Review (letter). Citizens' Council. August 2021. Document number: 651.105.210805.RCPcmts2DEC

Comments to ADEC on proposed changes to the Prince William Sound Area Contingency Plan (letters). Citizens' Council. July 2021 and May 2022. Document numbers: 651.105.210719.AreaPlanCmts and 651.105.220511. ADECpwsACPcmts

Comments to ADEC on proposed regulatory revisions to 18 AAC 75, Article 4 (letter). Citizens' Council. January 2022. Document number: 600.105.220128.ADECRegRefrmCmts

Geographic Response Planning for the Copper River Delta and Flats (report). Sierra Fletcher, Breck Tostevin, and Tim Robertson of Nuka Research and Planning Group, LLC and Nielsen Koch & Grannis, PLLC. March 2022. Document number: 654.431.220301.NukaCRDFhistory

Letters expressing support for European green crab early detection and rapid response in Alaska and House Bill 54 (letters). Citizens' Council. January and March 2022. Document numbers: 952.105.220104.USFWgreencrab and 270.105.220307.TarrHB54NIS

Letters expressing support for HB 171 and Senate Bill 121 "PFAS Use & Remediation; Fire/Water Safety" (letters). Citizens' Council. February, March, and April 2022. Document numbers: 270.105.220215.SB121PFAS, 270.105.220307. HRCHB171PFAS, and 270.105.220419.BishopSB121

Letter expressing support for Section 2 of SB 3002 "Motor Fuel Tax" (letter). Citizens' Council. September 2021. Document number: 270.105.210909.RevakSB3002

Letters to ADEC regarding the Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan, DEC Plan 18-CP-4057: East Tank Farm Secondary Containment Liner Integrity Verification (letters). Citizens' Council. December 2021, and April, May, and June 2022. Document numbers: 651.105.211216.ADECrfaiClarif, 500.105.220422. ADEClinerinteg, 500.105.220520.ADECetfLiner, and 500.105.220620.ADECetfLiner

Marine Winter Bird Surveys in Prince William Sound (report and letter). Prince William Sound Science Center and Citizens' Council. August and November 2021. Document numbers: 900.431.210810.WinterBirdSurvy and 900.105.211102. APSCwbSurvey

Mussel Chemistry and Transcriptomic Responses after a Minor Alaskan Oil Spill (report). Lizabeth Bowen, William B. Driskell, and James R. Payne, Austin Love, Shannon Waters, Eric Litman, Brenda Ballachey. September 2021. Document number: 951.431.210922.MusslTrnscriptRpt

Port Valdez Weather Buoy Data Analysis (report). Robert W. Campbell, Ph.D. August 2021. Document number: 653.431.210802.PtVdzWxBuoyData

Prince William Sound Tanker Oil Spill Prevention & Contingency Plan, summary and compendium of event summaries 1995-2020, and timeline of major events (report, compendium, and graphic). Sharry Miller, Sierra Fletcher, Breck Tostevin, and Haley Griffin of Nuka research & Planning Group, LLC and Nielsen Koch & Grannis, PLLC. August 2021. Document number: 651.431.220329.PWStkrHistSum, 651.431.220329. PWStkrHistComp, and 651.431.220301. TankerPlanTimeline

PWSRCAC Annual Drill Monitoring Report for 2021 (report and letter). Citizens' Council. January and February 2022. Document numbers: 752.431.220127.DrillMon2021 and 752.105.220203.AnnualRpt

PWSRCAC Emergency Towline Deployment Practical Trials, Summary Report (report). Glosten. August 2021. Document number: 801.431.210806.GlosTowlineTrial

Vessel Traffic Services, Use of Automatic Identification System and Radar, Executive Summary, and letter to the Alaska Delegation expressing the need for replacing radar equipment in Prince William Sound to help prevent another major oil spill (reports and letter). C-Core and Citizens' Council. July and December 2021. Document numbers: 801.431.210701.CCoreVTSais, 801.431.211208.C-CoreAISExecSum, 801.105.211230. AkDelAISinPWS

Utilizing Numerical Simulation to Estimate the Volume of Oil Leaked Through a Damaged Secondary Containment Liner (report). Citizen' Council. February 2022. Document number: 500.431.220207.LinerLeakModel

This is a sample of the reports, papers, and other materials produced or compiled by the Council in the past year. Please contact the Council for additional information and/or copies of materials.





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