

2018-2019 YEARIN REVIEW

30 Years of Combating Complacency through Citizen Oversight





Citizens promoting the environmentally safe operation of the Alyeska terminal and associated tankers

The Prince William Sound Regional Citizens' Advisory Council was formed after the Exxon Valdez oil spill to provide a voice for citizens affected by decisions related to the Alyeska pipeline terminal and associated tankers.

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LETTER FROM THE PRESIDENT & EXECUTIVE DIRECTOR



PRESIDENT Robert Archibald City of Homer



EXECUTIVE DIRECTOR Donna Schantz

In this report, you will find highlights from a busy and productive year for the Council. This year, the thirtieth anniversary of the 1989 Exxon Valdez oil spill, was a time to reflect on lessons learned and acknowledge the progress made in oil spill prevention and response. It was also a time to recommit to our mission of promoting environmentally safe operation of the Valdez Marine Terminal and associated oil tankers. Our volunteers and staff put in countless hours fulfilling our mandate as outlined in the Oil Pollution Act of 1990 and our contract with Alyeska Pipeline Service Company: conducting research, monitoring, and providing advice to industry and regulators.

Last year, we monitored the launch of Alyeska Pipeline Service Company's new marine services provider. Edison Chouest Offshore now provides key oil spill prevention and response assets for the Valdez Marine Terminal and associated oil tankers operating in Prince William Sound. This includes maintaining two tugs required to escort laden tankers entering or leaving Prince William Sound. The Council is pleased with the state-of-the-art improvements that the transition has brought to Prince William Sound. More about this transition can be found on page 5.

Prince William Sound is known for its world-class oil spill prevention and response system. However, that was not always the case. A major project highlighted in the following pages is a report that chronicles the story of how Alaskans came together with industry and regulators in the aftermath of the Exxon Valdez oil spill to improve the laws governing oil spill response in Alaska (see page 9).

As we reflect on this history and look back on what we have learned as an organization since our creation, a key message heard at Clean Pacific this past year, a conference for the oil spill prevention and response community, stands out. A major theme of the conference was about the value of community relationships founded on trust. Trust is built on transparency, listening, and engaging stakeholders.

This emphasis on relationships and trust is timely. Over the past few years the Council has been seeing a steady erosion in regulatory oversight, staffing, funding, and coordination among many of the federal and state agencies responsible for enforcing strong laws and regulations. This alarming erosion has already reduced public trust in our prevention and response system.

The system, created for the Valdez Marine Terminal and associated tankers after the 1989 Exxon Valdez oil spill, is widely regarded as one of the best in the world. Strong State of Alaska statutes and regulations have supported the robust system. Alyeska Pipeline Service Company and the Trans Alaska Pipeline System tanker



operators have worked with regulators and citizens to continuously improve the system to operate safely and profitably. The lack of significant spills in the last 30 years indicates the effectiveness of the current system.

An official recommendation to the Alaska legislature after the 1989 Exxon Valdez oil spill was, "The nation and the state need strong, alert regulatory agencies fully funded to scrutinize and safeguard the shipment of oil." The Alaska Oil Spill Commission found that starting in 1981 there had been a dramatic decline in regulatory oversight that had contributed to the spill.

In enacting the Oil Pollution Act of 1990, Congress determined that only when local citizens are involved in oil transport will the trust develop that is necessary to change the system from confrontation to consensus, and so the Act called for creation of citizen councils. The Council is a unique partner for industry and regulators, giving both a platform to provide information, answer questions, and listen to stakeholders, cultivating the long-term relationships that are necessary to establish public trust.

While the Council has had disagreements with industry over the years, there have been numerous examples of industry, regulators, and citizens working cooperatively and collaboratively to find solutions. As those who experienced firsthand the devastation of the 1989 spill are coming to retire or are no longer with us, the Council has increasingly become a knowledge-bearer of the intention of those who worked hard after the Exxon Valdez oil spill, and in the 30 years since, to develop and uphold an effective system of protections. The success of these collaborative processes has been founded upon the transparent sharing and use of technical and scientific information; stakeholders felt informed, heard, and included in the process, resulting in trust.

Industry has been able to meet or exceed current regulatory requirements and has demonstrated a commitment to the environment through safer operations, implementing new technologies, and integrating lessons learned. The State of Alaska, industry, and citizens should take pride in the world-class oil spill prevention and response system created for crude oil storage and transportation in Prince William Sound. Maintaining this high level of vigilance is of paramount importance to keeping oil transportation safe.

As we look to the future, the Council will do everything possible to make sure the safeguards put in place over the past 30 years are not weakened, to protect the region's environment and stakeholders who would be most impacted by another catastrophic spill. The Council was created, in part, in anticipation of the time when the memory of the Exxon Valdez oil spill has faded such that the protections put in place begin to look stale, overbearing, and burdensome. It is critical that industry, government, and citizen leaders remain cognizant of the history that underlies the present system of preparedness. The Council continues to raise awareness and provide reasonable and justified resistance to changes that could weaken existing protections. We will continue doing what we can to resist sliding back into complacency.

OUR MISSION



The **Prince William Sound Regional Citizens' Advisory Council** is an independent non-profit corporation guided by its mission: Citizens promoting environmentally safe operation of the Alyeska terminal and associated tankers.

WHO WE ARE

The Council's 18 member organizations are communities in the region affected by the 1989 Exxon Valdez oil spill, as well as Alaska Native, aquaculture, commercial fishing, environmental, recreation, and tourism groups. The Council was formed after the Exxon Valdez oil spill to provide a voice for citizens affected by decisions made by the oil industry in Prince William Sound.

THE COUNCIL'S STRUCTURE

Consistent with its mission, the Council's structure and responsibilities stem from two documents. The first is a contract with Alyeska Pipeline Service Company, which operates the Trans Alaska Pipeline System as well as the Valdez Marine Terminal. The contract guarantees the Council's independence from industry while also providing the operating funds for the organization.

The second guiding document, passed after the Council was created, is the Oil Pollution Act of 1990 (the Act), which requires two citizen oversight councils, one for Prince William Sound and another for Cook Inlet. The purpose of the councils is to promote partnership and cooperation among local citizens, industry, and government; to build trust; and to provide citizen oversight of oil terminals and tankers.

The Act allows pre-existing organizations to fulfill the requirement for citizen oversight, which the Council has done for Prince William Sound since 1990. The Council's contract with Alyeska pre-dates the Act, but the similarities in the powers and duties given the Council in the two documents are not coincidental. Many people who helped establish the Council also promoted federal laws that require citizen involvement.

OUR RESPONSIBILITIES

In accordance with the provisions of the two documents, the Council performs a variety of functions aimed at reducing pollution from crude oil transportation through Prince William Sound and the Gulf of Alaska:

- Monitoring, reviewing, and commenting on oil spill prevention and response plans prepared by Alyeska and shipping companies moving oil through Prince William Sound
- Monitoring, reviewing, and commenting on the environmental protection capabilities of Alyeska and the tanker operators, as well as on the environmental, social, and economic impacts of their activities
- Reviewing and making recommendations on government policies, permits, and regulations relating to the oil terminal and tankers

As part of these undertakings, the Council regularly retains experts in various fields to conduct independent research and technical analysis on issues related to oil transportation safety.

The Alyeska contract 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 contract states that the Council may work on other related issues not specifically identified when the contract was written.

The Council monitors, reviews, and makes recommendations on:

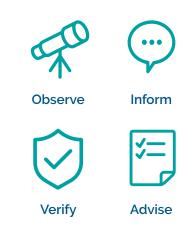
- Oil spill prevention and response plans prepared by Alyeska and by operators of oil tankers
- Environmental protection capabilities of Alyeska and the tanker operators, as well as on the environmental, social, and economic impacts of their activities
- Government policies, permits, and regulations relating to the oil terminal and tankers

OUR FUNDING

The Council was initially funded at \$2 million a year. The funding is renegotiated every three years; current Alyeska funding is approximately \$3.6 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."

THE COUNCIL'S ROLE:



PREVENTING AN OIL SPILL

Preventing an oil spill from occurring in the first place is the most effective strategy 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.

To ensure the maximum level of safety, the Council reviews all aspects of the oil transportation system in Prince William Sound including:

Operation of oil tankers and the Valdez Marine Terminal

Oil spills and other incidents

Adequacy and maintenance of Federal and State requirements and oversight

TRANSITION OF MARINE SERVICES

The oil tanker escort system in Prince William Sound is an essential oil spill prevention measure that reduces the risk of another catastrophic event such as the 1989 Exxon Valdez oil spill.

Last year on July 1, 2018, Edison Chouest Offshore took over from Crowley Marine Services as the marine services contractor for Alyeska's Ship Escort/Response Vessel System, known as SERVS.

Under this contract, Edison Chouest now provides key oil spill prevention and response assets for the Valdez Marine Terminal and associated oil tankers operating in Prince William Sound. The transition brought many improvements in spill prevention. The new vessels include five new escort tugs, four new general-purpose tugs, four new purpose-built oil recovery storage barges, and one offshore utility vessel. These vessels have many prevention and response improvements such as safer tow line winches on the tugs, and improved response barges with decks designed to more safely deploy and retrieve oil skimming equipment.

Exercises test spill prevention capabilities of tugs

The Council has been pleased with the state-of-the-art improvements that the transition has brought to Prince William Sound. It is still important to note that any time a system goes through transition, in any industry, risk is introduced. This year, the Council monitored the completion of a series of exercises designed to meet requirements set by the Alaska Department of Environmental Conservation. Some exercises were conducted during windy conditions and others during darkness. Many of these exercises were completed during the summer of 2018 prior to July 1, when Edison Chouest officially took over the contract, but some of the exercises took place after the transition.

Each of the five escort tugs were able to stop a laden tanker traveling at 10 knots (over 11 miles per hour) and at 6 knots (almost 7 miles per hour). All tugs demonstrated their abilities to stop and tow a stricken tanker, meeting the required standards.

THE NEW VESSELS INCLUDE:

- Five new escort tugs
- Four new general-purpose tugs
- One offshore utility vessel
- Improved response barges
- Safer tow line winches on the tugs

MONITORING WEATHER UNDERSTANDING WEATHER AND SEA CURRENTS IN PRINCE WILLIAM SOUND

Wind, waves, water currents, and other environmental factors affect the safe transportation of crude oil through Prince William Sound.

The Council supports several weather stations, two in Prince William Sound and one in the Gulf of Alaska. Much of this information is collected via the Prince William Sound Weather Station Network, developed and maintained by the Prince William Sound Science Center. The Council co-funds this network.

Wind and waves at Hinchinbrook Entrance

Many decisions about the transportation of oil are based on the weather data reported by a buoy at Seal Rocks, near Hinchinbrook Entrance. This buoy, operated by the National Oceanic and Atmospheric Administration, is somewhat sheltered in its location, a nod to its continued survival in this extreme environment.

Image Above: Two powerful tugs accompany every oil-laden tanker travelling through the Sound and out to the Gulf of Alaska. They provide immediate assistance to a disabled tanker, and can quickly start a cleanup in the event of a spill.

VALDEZ MARINE

PRINCE WILLIAM SOUND

HINCHINBROOK ENTRANCE

Hinchinbrook Entrance, a narrow passageway between Montague and Hinchinbrook Islands, is the entrance from the Gulf of Alaska into Prince William Sound.

The Council has long been concerned with what we call a "response gap." This gap occurs when wind and waves are strong enough that mechanical response (boom and skimmers) is not possible, but wind speed and wave height has not reached the point where Hinchinbrook Entrance is closed to tanker traffic. Making sure tugs can rescue tankers in near closure conditions is important because an oil spill response is not effective in those conditions.

COOK INLET

This year, the Council studied weather conditions at Hinchinbrook Entrance and their effects on efficient and safe rescue operations by tanker escort tugboats.

GULF OF ALASKA

Tankers are not allowed to travel through Hinchinbrook Entrance when wave height exceeds 15 feet or winds exceed 45 knots, or 51 miles per hour. Researchers from Tetra Tech Canada reviewed the frequency and duration of Hinchinbrook Entrance closures for tanker traffic due to inclement weather.

They found that tanker traffic is far more likely to be halted because of wave height than wind speed. This is despite the Seal Rocks buoy generally recording higher wind speeds and lower wave heights than neighboring stations.

SAFE ANCHORING FOR TANKERS IN DISTRESS

In 2004, the Council partnered with the Alaska Department of Environmental Conservation to develop a list of sheltered locations an oil tanker in distress could be taken. Establishing these places of refuge prior to a crisis allowed local knowledge and conditions to be considered.

Last year, the Council worked with experienced marine pilots to evaluate the first of three groups of sites. The pilots used the ship simulator at AVTEC Alaska Vocational Technical Center to safely test the sites. This year, the remaining sites were evaluated with a final report anticipated in the fall of 2019.

TANK LINER INTEGRITY EVALUATED TO PREVENT SPILLS

From 2014 through 2017, Alyeska evaluated the secondary containment liners surrounding the large crude oil storage tanks at the Valdez Marine Terminal. The Council's Terminal Operation and Environmental Monitoring Committee reviewed the evaluations and found that the integrity of the liner was questionable, potentially not meeting the design's intent: to protect groundwater. This year, the committee initiated a project to identify testing methods that could better evaluate the overall condition of the buried liners. The researchers, Geosyntec Consultants, Inc., identified two potential testing methods, electrical leak location and tracer gas testing. The Council recommended to Alyeska that they consider implementing a pilot study to assess whether the methods would work at the Valdez Marine Terminal.

Image Above: Each of the large storage tanks at the Valdez Marine Terminal can hold over 20 million gallons of North Slope Crude oil.



PLANNING & PREPARING FOR AN OIL SPILL

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. These plans demonstrate how they will prevent and respond to oil spills. Every five years, these plans must be updated. Part of the Council's role is to review and provide advice on changes to the plans, along with monitoring all federal and state plans that have impacts in our region. The Council devotes significant resources to these tasks.

Last year, the Council reviewed oil spill contingency plans for the tankers that transit Prince William Sound and carry oil from the Valdez Marine Terminal. Due to the transition of marine contractors, there were more extensive changes than usual. The plan covering the terminal is coming up for its five-year renewal this year, and the Council has been focusing on information contained in that plan, particularly: :

- Adequately trained personnel, which is crucial to preventing and responding to spills. Details on the number and training capabilities of personnel is spelled out in the contingency plan.
- Protection of fragile ecosystems. These require extensive pre-planning and the Council is carefully reviewing specific protection measures.

This year, the Council has been improving knowledge of weather conditions in Prince William Sound through a new weather buoy, donated to the Council by Fairweather Scientific, a subsidiary of Edison Chouest Offshore. A partnership between the Council, Alyeska Pipeline Service Company, the Prince William Sound Science Center, the City of Valdez, Prince William Sound Aquaculture Corporation, and Valdez Fisheries Development Association made this buoy placement possible.

The Council's review of the terminal's contingency plan focuses on two key areas:



ADEQUATELY TRAINED PERSONNEL



PROTECTION OF FRAGILE ECOSYSTEMS As part of our work on the terminal plan, the Council has been involved in a partnership with the Prince William Sound Science Center, Alyeska Pipeline Service Company, the City of Valdez, Prince William Sound Aquaculture Corporation, and Valdez Fisheries Development Association to collect weather data in Port Valdez. The data will help improve understanding of the oceanographic elements near the terminal and will aid in effective preparedness planning.

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CHANGES IN AREA SPILL PLANNING

Significant changes were also made to federal and state oil spill planning in Alaska in the past year. The Council has carefully monitored these changes on behalf of its stakeholders. The changes were implemented to make planning in Alaska consistent with the rest of the rest of the U.S.

COPING WITH OIL SPILLS AND OTHER TECHNOLOGICAL DISASTERS

The sociological impacts of oil spills are not usually addressed in federal or state emergency contingency plans. To fill this significant gap in oil spill planning, the Council applied the results of socioeconomic research and developed "Coping with Technological Disasters: A User Friendly Guidebook." The guidebook explains how communities can deal with technological, human-caused disasters. The Council completed the third revision of the guidebook in January 2019.

SURVEYS FOR HERRING AND OTHER FORAGE FISH

Small fish such as herring have a key role in the marine ecosystem, as well as an important part of the food chain. These "forage fish" are prey for salmon and other larger species that are important to Alaska's economy as well as local citizens who depend on these species for food. In recent years, herring populations in Prince William Sound have crashed to all-time low levels. Therefore, it is especially important to understand where the remaining populations of forage fish spawn and congregate in order to protect them in case of an oil spill. This past year, the Council partnered with the Prince William Sound Science Center, conducting aerial surveys to find out where juvenile herring and these other forage fish congregate.

Image Below: These aerial surveys resulted in maps showing key habitats for different life stages and forage fish species in Prince William Sound and will be useful for response planners and environmental managers to protect our natural resources from the risks of an oil spill.



HOW PRINCE WILLIAM SOUND'S SPILL PREVENTION AND RESPONSE SYSTEM CAME TO BE

Prince William Sound is known for its world-class oil spill prevention and response system. But it wasn't always that way. In March of 1989, when the Exxon Valdez ran aground and spilled an estimated 11 million gallons of crude oil, responders were ill-prepared. Many changes have been made since then.

A recent report, funded by the Council, tells the story of how Alaskans came together in the disaster's aftermath to change the laws governing oil spill response in Alaska.

Two weeks after the spill, Alaska Governor Steve Cowper issued an emergency order that noted the failures of the previous oil spill contingency plan and set expectations for new standards: a robust system that could handle an Exxon Valdez-sized spill. The governor gave Alyeska 38 days to set it up and threatened to shut down the oil pipeline system if they did not comply.

The report's authors interviewed oil industry experts, attorneys, state employees, and spill response specialists who were part of the team that came together to solve the governor's challenge.

The report chronicles the obstacles, breakthroughs, and significant compromises the group encountered while developing the revolutionary new system that dramatically improved readiness. The system that was designed to meet the governor's order was the genesis of today's Ship Escort/Response Vessel System.

RESPONDING TO AN OIL SPILL

The Council and our industry and regulatory counterparts devote considerable resources to preventing oil spills and reducing the likelihood of another spill, but the risk cannot be eliminated entirely. A quick and effective response must be ready if prevention measures fail.

To respond effectively to an oil spill or to an emergency that could cause a spill, it takes more than volumes of carefully written and reviewed contingency plans. It also takes 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 while also ensuring the Council itself is prepared to respond to oil spills and other emergencies as a conduit for public concerns and as an independent monitor.

OIL SPILL MONITORING

The Council monitors spills that occur from terminal and tanker operations. Fortunately, because spill prevention efforts in Prince William Sound are among the best in the world, significant incidents are rare. More common are minor spills, usually a teaspoon or less. These spills are tracked and improvements are made where possible to prevent small problems from becoming larger issues.

From July 2018 through June 2019, a total of 12 spills were reported, none of which were crude oil. The majority of the spills were relatively small amounts of petroleum products like hydraulic fluid and diesel. The largest spill was about 55 gallons of waste water that leaked to containment at the terminal. The water was pumped back into the Ballast Water Treatment Facility for cleaning.

MONITORING DRILLS AND EXERCISES

Both the Oil Pollution Act of 1990 and the Council's contract with Alyeska task the Council with monitoring the operational readiness of SERVS and the oil shipping companies.

The Council observes, monitors, and reports on spill response drills, exercises, and training in the Prince William Sound/northern Gulf of Alaska region to provide citizens, regulatory agencies, and oil spill responders with information about readiness as well as recommendations for improvement.

Alyeska conducts many drills and exercises of varying sizes throughout the year. Some are small, but a few are large, involving a hundred or more personnel. These events ensure responders are ready and able to act quickly in the event of a real spill.

MAJOR ANNUAL SPILL EXERCISES

Every year, large drills are conducted to test aspects of the oil spill contingency plans for the Valdez Marine Terminal and the tanker companies that ship the crude oil.

At the terminal

The scenario for this year's exercise at the terminal depicted a worstcase discharge. In this scenario, a section of pipe broke and 8.5 million gallons of crude oil were released, with 6.5 million gallons reaching Prince William Sound. The exercise was two days in length. The first day was incident management activities, and the second day included oil recovery activities and equipment deployments.

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This year, the Council observed over 40 drills, trainings, and exercises in Prince William Sound.

Testing the tanker plan

The four tanker companies that ship crude oil from Valdez take turns hosting the annual large tanker spill drill. This year, Crowley Alaska Tanker Company's scenario involved a spill of 5.8 million gallons into central Prince William Sound. The Crowley response team simulated taking over the incident management from Alyeska and managing the response for 24 hours. The exercise included the Regional Stakeholder Committee, a forum that was put in place after the Exxon Valdez oil spill so that affected stakeholders could communicate with Unified Command, the decision makers during a response. During the drill, the oil's simulated trajectory moved east, threatening the Native Village of Tatitlek and the Port Gravina area, creating discussion among committee members about sensitive area protection. These discussions helped address concerns brought up by the committee participants.

PROTECTING THE ENVIRONMENT

The Oil Pollution Act of 1990 directs the Council to review, monitor, and comment on Alyeska Pipeline Service Company's environmental protection capabilities, as well as the actual and potential environmental impacts of terminal and tanker operations. The Act also calls on the Council to develop recommendations on environmental policies and permits.

The Council conducts scientific research on risks to the environment from tanker and terminal operations. Council research documents levels of pollution and biological effects and helps us better understand new technologies and the costs or benefits associated with their use.

MONITORING OPERATIONS AT THE TERMINAL

The Council monitors terminal operations and maintenance to minimize the risk of spills and reduce the facility's discharge or emissions of water and air pollution to the lowest reasonable levels.

RENEWAL OF ALYESKA'S WATER QUALITY PERMIT

Besides posing the risk of a major oil spill caused by an earthquake or accident, the Valdez Marine Terminal produces ongoing air and water pollution from routine operations and maintenance, as allowed by its permits from regulatory agencies.

The Valdez Marine Terminal's water quality permit was up for renewal in 2018 and the Council submitted comments meant to improve that permit to the Alaska Department of Environmental Conservation in April 2019. For the review, the Council's Terminal Operations and Environmental Monitoring Committee reviewed historic documents including previous renewal permits, comments by Alyeska and the Council on previous renewals, and responses from the U.S. Environmental Protection Agency, who used to issue the terminal's water quality permit. Since 2012, ADEC has taken over responsibility for issuing that permit.

Additionally, the committee reviewed water quality data from 2013 to 2017 pertaining to two sources of wastewater discharge from the Valdez Marine Terminal. That review concluded that Alyeska effectively operated and maintained those two sources of wastewater ensuring the environmental impacts of these two effluent sources have been limited during that time.



BLUE MUSSELS

Environmental samples collected and analyzed for oil contamination included blue mussels and marine sediment.



LONG-TERM ENVIRONMENTAL MONITORING

Every year the Council collects environmental samples and has them chemically analyzed for oil contamination. The Council has been conducting this type of monitoring since 1993. In 2018, the Council collected blue mussels and marine sediment samples for analysis, as well as having specialized environmental monitoring equipment called passive sampling devices analyzed for oil contamination. In most years, the Council only does such sampling in Port Valdez, but every five years, including 2018, the sampling extends throughout Prince William Sound, along the outer coast of the Kenai Peninsula, and to the northwest end of the Kodiak Archipelago at Shuyak Island. The results are published in the report "Long-Term Environmental Monitoring Program: 2018 Sampling Results and Interpretations," available on our website. Overall, that report concluded that in 2018 the mussels and passive sampling devices were "extremely clean," meaning there was little if any oil contamination present.

TOXICITY OF CRUDE OIL

The Council partners with NOAA's Northwest Fisheries Science Center to conduct research on the toxicity of crude oil. The goal of this research is to improve the understanding of immediate and long-term effects of crude oil exposure. The research is conducted in a lab on Pacific herring and other North Pacific fish species. This past year, herring embryos from Prince William Sound, Sitka, and the Puget Sound were exposed to low concentrations of oil that might be encountered in the environment. The herring were reared through their larval and juvenile stages and studied for growth, metabolic changes, and susceptibility to infectious diseases. The data analysis for this large amount of work is underway.



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scientific articles about dispersants have been evaluated by the Council

CHEMICAL DISPERSANTS

Chemical dispersants are substances that are intended to disperse spilled oil into the water column rather than leave it floating on top in a slick. For many years, the Council has been concerned that studies do not show evidence that dispersants are effective in the cold waters of our region. Another concern is the toxicity of dispersants, especially when mixed with oil.

Periodically, the Council updates a comprehensive list of scientific research articles about chemical dispersants. In 2019, 130 articles were added to this list bringing the total number of articles to 1,591. This work also included an evaluation of the significance of those 130 new dispersant articles.

Image Above: The Council sponsors an internship each year for a local high school student to monitor the Cordova area for invasive European green crabs.

MONITORING FOR MARINE INVASIVE SPECIES

Tankers can carry invasive species in ballast water or attached to their hull. If introduced to a new environment where there are no native predators to keep populations in check, they can become established, resulting in economic and environmental damage. Invasives can destroy local species and their habitat, including commercially important species, such as Alaska salmon. Prince William Sound oil tankers visit some ports outside of Alaska that are known to be infested with invasive species.

Citizens help the Council watch for invasive species

The Council helps coordinate citizen-based monitoring for these species in our area, particularly the European green crab and invasive tunicates, also known as "sea squirts," which are the biggest potential threat to our area. The Council also watches for other marine invasive species including bryozoans, barnacles, and the Chinese mitten crab. Port Valdez and Cordova are monitored regularly by Council staff and volunteers from these communities, along with occasional monitoring efforts near Ellamar and the Native Village of Tatitlek, in collaboration with the Smithsonian Environmental Research Center.

To date, neither invasive crab species have been found in either Port Valdez or Cordova. Individual invasive bryozoans, tunicates, and barnacles have been found during past years, but no new non-indigenous species were found this year.

Plankton testing

Since 2016, the Council has partnered with the Prince William Sound Science Center in Cordova to collect plankton samples in Port Valdez and Prince William Sound. The samples are genetically analyzed by Moss Landing Marine Laboratory in California to identify invasive species. The analysis found one non-indigenous clam and sea squirt in 2016, but in 2017 no non-indigenous marine species were detected.

INVOLVING CITIZENS IN OVERSIGHT

The Council cultivates productive 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

Every year, the Council's staff and volunteers visit communities in the Council's region to host and participate in events that increase citizen engagement in the Council's work. These include informational receptions, presentations, conference exhibits, and special events.

In 2019, the Council marked the 30th anniversary of the Exxon Valdez oil spill by supporting partners' events across the region at museums, libraries, community centers, and the Alaska Forum on the Environment, as well as by contributing to multiple media stories. In addition, the Board passed a resolution acknowledging the anniversary and advocating that the highest spill prevention and response standards continue to be developed and maintained.

ENGAGING THE NEXT GENERATIONS TO PROTECT PRINCE WILLIAM SOUND FUNDING YOUTH EDUCATION PROGRAMS

The Council supports programs offered by partners in our region that teach youth about topics related to the Council's mission. Through these hands-on programs, teachers and youth of all ages learn about oil spill prevention and response, citizen oversight, response capabilities in Prince William Sound, and more. The Council also educates youth directly through classroom visits, judging youth science competitions, and career mentoring.

INTERNS HELP COUNCIL ACHIEVE OUR MISSION

The Council recruits youth interns to complete Council projects that incorporate career development opportunities. The longest standing internship, monitoring Cordova harbor for invasive green crab and tunicates, had three youth participants from Cordova this year: Cori Pegau, Faith Collins, and starting in time for the 2019 season, Mia Siebenmorgen-Cresswell.

TOURING FISHING VESSEL SPILL RESPONSE TRAINING

In September 2018, the Council partnered with Alyeska and the Whittier School to take Whittier residents out to observe SERVS fishing vessel responders' annual oil spill response training in a nearby bay. Approximately sixty people, including members of the public, elected officials, the entire Whittier school of 26 students, Council volunteers from the area, and local media spent two hours watching the training. Everyone on board learned how Whittier's fishermen are integral to Alyeska's oil spill response team. Council representatives and SERVS staff narrated the oil spill response training and shared information about equipment and tactics. The tour also visited a nearby site where extra protection measures are in place to protect the fragile coastline habitat.



THE OBSERVER NEWSLETTER

The Observer is a free newsletter distributed throughout Prince William Sound, the northern Gulf of Alaska, lower Cook Inlet, and the Kodiak archipelago. It covers Council activities, developments in the oil transportation industry related to our mission, and news about policy and operational issues related to marine oil transportation in Prince William Sound. The Observer is available on the Council website and as an email newsletter.

GOVERNMENT RELATIONS

The Council monitors state and federal actions, legislation, and regulations that relate to terminal and tanker operations or to oil spill prevention and response. To help track developments, the Council retains state and federal legislative monitors under contract. Over the past year the Council's Legislative Affairs Committee, working closely with the monitors, have focused on reauthorization of the Oil Spill Liability Trust Fund, invasive species legislation, regulation rollbacks related to oil spill prevention and response, and budget cuts to agencies charged with enforcing those regulations.

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. The Council has been the certified group since 1991.

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.

As part of its recertification process, the Coast Guard considers comments received from industry, interest groups, and citizens. The Council fulfills the Act's requirement for an industry-funded citizens' advisory group, although it was established before the law was enacted.

OUTREACH ACTIVITIES

The Council touched many of our communities last year through our outreach and youth involvement programs. Numbers in the map denotes total interactions with each community. For more details on outreach in our communities, visit our website: www.pwsrcac.org/outreach

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BOARD OF DIRECTORS

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. 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.

OFFICERS (As of June 30, 2019)



PRESIDENT Robert Archibald City of Homer



VICE PRESIDENT Amanda Bauer City of Valdez



SECRETARY Bob Shavelson Oil Spill Region Environmental Coalition



TREASURER Wayne Donaldson City of Kodiak

EX-OFFICIO BOARD MEMBERS (NON-VOTING) (As of June 30, 2019)

- AK Dept. of Environmental Conservation: Craig Ziolkowski
- AK Dept. of Fish & Game/Habitat Division: Lee McKinley
- AK Dept. of Natural Resources: Tom Stokes
- 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: Vacant
- U.S. Coast Guard/Marine Safety Office Valdez: Cmdr. Michael Franklin
- U.S. Dept. of the Interior: Phillip Johnson
- U.S. Environmental Protection Agency: Calvin J. Terada
- U.S. Forest Service

MEMBERS-AT-LARGE



Peter Andersen Chugach Alaska Corporation



Thane Miller Prince William Sound Aquaculture Corporation



Rebecca Skinner Kodiak Island Borough



Robert Beedle City of Cordova

BOARD MEMBERS



Mike Bender City of Whittier



Conrad Peterson Kodiak Village Mayors Association



Patience Andersen Faulkner Cordova District Fishermen United



Dorothy M. Moore City of Valdez



Michael Vigil Chenega Corporation & Chenega IRA Council



Mako Haggerty Kenai Peninsula Borough



Luke Hasenbank Alaska State Chamber of Commerce



Kirk Zinck City of Seldovia



Melvin Malchoff Jr. Port Graham Corporation



Roy Totemoff Community of Tatitlek



Rob Chadwell City of Seward

ADVISORY COMMITTEES

Five standing committees advise the Board of Directors and Council staff on projects and activities. Committee volunteers also assist the staff on individual projects. The advisory committees are made up of interested citizens, technical experts, and members of the Council Board. Committee volunteers are selected through an annual application process. They are appointed to two-year terms and may serve consecutive terms.

As of June 30, 2019 | * Member of Board of Directors

INFORMATION AND EDUCATION

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

Chair: Jane Eisemann, Kodiak Vice-chair: Linda Robinson, Homer

Trent Dodson, Kodiak Cathy Hart, Anchorage Patience Andersen Faulkner, Cordova^{*} Ruth E. Knight, Valdez Andrea Korbe, Whittier Savannah Lewis, Anchorage Kate Morse, Cordova



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

Chair: Jim Herbert, Seward Vice-chair: John LeClair, Anchorage

Robert Beedle, Cordova* Mike Bender, Whittier* Jerry Brookman, Kenai David Goldstein, Whittier Gordon Scott, Girdwood

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

Chair: Steve Lewis, Anchorage Vice-chair: Robert Archibald, Homer*

Amanda Bauer, Valdez* Cliff Chambers, Seward Pete Heddell, Whittier Orson Smith, Seward Jeremy Talbott, Valdez Gordon Terpening, Homer

SCIENTIFIC ADVISORY

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

Chair: John Kennish, Anchorage Vice-chair: Davin Holen, Anchorage

Sarah Allan, Anchorage Jeffrey Brooks, Anchorage Wei Cheng, Anchorage Wayne Donaldson, Kodiak* Roger Green, Toronto, Canada Debasmita Misra, Fairbanks Dorothy M. Moore, Valdez*

TERMINAL OPERATIONS AND ENVIRONMENTAL MONITORING

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

Chair: Mikkel Foltmar, Anchorage Vice-chair: George Skladal, Anchorage

Amanda Bauer, Valdez* Harold Blehm, Valdez Matt Cullin, Anchorage Steve Goudreau, Valdez Tom Kuckertz, Anchorage Patrick Tomco, Anchorage



STAFF

Executive Director Donna Schantz

Executive Assistant Jennifer Fleming

Administrative Assistants Leigh Lubin Natalie Novik

Project Manager Assistants Nelli Vanderburg Hans Odegard

Project Managers

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

Outreach Coordinator Betsi Oliver **Financial Manager** Gregory Dixon

Director of Programs Joe Lally

Director of Communications Brooke Taylor

Director of Administration Walt Wrede

PAPERS, PRESENTATIONS AND REPORTS

These are just a few of the many reports, papers, presentations, and other materials produced or compiled by the Council in the past year. For further information, or to obtain copies, visit the Council website or contact the Anchorage office (see back cover for contact information).

2017 Drill Monitoring Annual Report (report) Citizens' Council. August 2018. Document number: 752.431.180801.2017AnnualRpt

Alaska's Oil Spill Response Planning Stand: History and Legislative Intent (report) Nuka Research & Planning Group, LLC. August 2018. Document number: 600.431.180801. NukaLegisIntent

Comments and Request for Additional Information to ADEC on Alyeska Pipeline Service Company, Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan (comments and letters) Citizens' Council. November 2018, January 2019, and June 2019. Document number: 651.105.181107.ADECvmtRenewal, 651.105.190107. VMTcmtsADEC, and 651.105.190617.ADECvmtRFAI

Comments to ADEC on Alyeska Pipeline Service Company Valdez Marine Terminal APDES Permit AK0023248 Renewal (letter) Citizens' Council. April 2019. Document number: 551.105.190426. APDESCmts

Comments to the Alaska State Legislature, House Finance Committee on SB 19 and the appropriation of Alaska Oil and Hazardous Substance Release Prevention and Response Fund monies (letter) Citizens' Council. May 2019. Document number: 270.105.190524.SB19FINCte

Comments to Honorable Dan Sullivan, United States Senate, regarding the Spill Response and Prevention Surety Act (comments) Citizens' Council. November 2018. Document number: 440.105.181120.OSLTF-SRPSA

Comments to the Coastal Response Research Center on the State-of-Science of Knowns and Uncertainties for Dispersants and Dispersed Oil – Topic 5, Human Health and Food Supplemental Comments Regarding Public Input on CRRC Work Group Report for the State of Science for Dispersant Use in Arctic Waters: Public Health and Food Safety (comments) Citizens' Council. July 2018 and August 2018. Document number: 955.105.180713.CRRCkinnerT5 and 955.105.180806. CRRCkinnerT5Supp

Coping with Technological Disasters – A User-Friendly Guidebook – Version 3 (report) Citizens' Council. January 2019. Document number: 656.431190101.CWTDGuidebook

Hinchinbrook Entrance Wind and Wave Extremes (report) Tetra Tech. November 2018. Document number: 653.431.181120.TetraTechWxReport

Letter seeking support for Congressional action to fund the U.S. Coast Guard (letter) Citizens' Council. January 2019. Document number: 440.105.190108.FundUSCG

Letter to United States Senate Committee on Finance regarding reinstating the application of the financing rate for the Oil Spill Liability Trust Fund and setting a floor and ceiling for the Fund (letter) Citizens' Council. June 2019. Document number: 440.105.190610.OSLTFSenFinanc

Letter to USCG District 17 and NOAA National Data Buoy Center thanking them for the prompt repair of the Seal Rocks Buoy (46061) in Prince William Sound, Alaska (letter) Citizens' Council. January 2019. Document number: 653.105.190108. CGnoaaSealRksTks

Long Term Environmental Monitoring Program – Final Report: 2017 Sampling Results and Interpretations (report) James R. Payne, Ph.D. and William B. Driskell. September 2018. Document number: 9514311809012017AnnualRpt

Recommendations for Maintaining Alaska's Oil and Hazardous Substance Release Prevention and Response Fund (letters) Citizens' Council. February 2019. Document number: 270.105.190208. DunleavySpar, 270.105.190208.SenResrceSPAR, and 270.105.190208.SenFinancSPAR Recommendation for the Development and Implementation of Formal Weather Reporting Procedures When the Seal Rocks Weather Buoy (46061) is Inoperable in Prince William Sound, Alaska (letter) Citizens' Council. January 2019. Document number: 653.105.190128.WxReportRule

Request to ADEC for Extension to Public Comment Period for Alyeska Pipeline Service Company Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan, ADEC Plan #18-CP-4057 due to the November 30, 2018 Earthquake (letter) Citizens' Council. December 2018. Document number: 651105.181204. ADECvmtExtndReq

Resolution 19-01 Recognizing the 30th anniversary of the Exxon Valdez oil spill, supporting high standards and safeguards for the Valdez Marine Terminal and associated tankers, and continued work to create the best response system possible should prevention measures fail (resolution) Citizens' Council. March 2019. Document number: 210.106.190322.EVOS30

Urgent Request for the U.S. Coast Guard and National Oceanic and Atmospheric Administration's (NOAA) National Data Buoy Center (NDBC) to Repair the Seal Rocks Buoy (46061) in Prince William Sound, Alaska (letter) Citizens' Council. October 2018. Document number: 653.105.181003.USCGnoaaSealRks

Valdez Marine Terminal Secondary Containment Liner Integrity Evaluation (report with PWSRCAC staff white paper) Geosyntec Consultants, Inc. October 2018. Document number: 500.431.181001. GeoSyntecLiners

Weather Buoy Demonstration Project (report) Prince William Sound Science Center. August 2018. Document number: 653.431.180815WxBuoyDemo

PHOTO CREDITS

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(b1) Linda Guthrie
P25: Brooke Taylor
P26: (l) Amanda Johnson (c) Betsi Oliver (r)
Courtesy of Betsi Oliver
P27: (t) Courtesy of Donna Schantz (c) Austin Love
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