Prince William Sound

REGIONAL CITIZENS' ADVISORY COUNCIL

2008-2009

IN REVIEW

Letter From the President

Steve Lewis, President

During the past year, much attention was focused on the twentieth anniversary of the Exxon Valdez oil spill. The causes and effects of the calamity were reviewed, and the progress made in spill prevention and response was discussed and recognized.

Rather than revisit that history, I wish to offer some observations on the challenges and opportunities our organization will face in coming years.

Our council's mission is accomplished through relationships and communication with our constituents, the oil industry, and the regulatory and legislative communities, all of whom have a common interest in the environmentally sound operation of the Alyeska terminal in Valdez and the oil tankers that use it. It is within this context that I see not only our greatest challenge, but also a great opportunity.

In the realm of constituent relations, the need of our council to maintain relevance in the minds of our constituents is fundamental to our continued success, if not to our very existence. Keeping the organization visible and engaged in our communities has become more difficult as the memory of the spill has faded. It would be a shame were the organization to become no more than a social club for spill survivors.

The board, recognizing this challenge, has established an Information and Education Committee. Working with the staff, this new committee can use state-of-the-art Internet-based communications tools to tap into the "connected" culture and budding environmental consciousness of younger generations.

At the same time, we must remain a conduit for two-way communication between our member groups and the regulatory and industry communities.

The problem of deteriorating communication is beginning to strain our relations with the regulatory community. Through the natural process of staff turnover within state and federal agencies and a redefinition of the priorities of the Coast Guard, we are finding that senior regulatory staff has less knowledge of our mandate, our past achievements, and our expectations for joint effort and cooperation. The challenge is to conduct our activities in a manner that benefits the common mission of environmental protection so that the regulators come to once again recognize us as an ally.

Conversely, on the legislative front we have had a resurgence of communication and success in pursuit of a legislative remedy to the problem of sunsetting tanker escort requirements. At the state level, this yielded a unanimous legislative resolution, signed by the governor, endorsing the continuation of the present system of dual escorts. This success has proved extremely valuable in our efforts to seek federal legislation. Senators Lisa Murkowski and Mark Begich and Representative Don Young have joined in promoting draft federal legislation to preserve the escort system. We continue to push for passage of this bill and to maintain open and direct communication with our legislative community.

It is understandable that our greatest communications challenge lies in our dialogue with the oil industry. While we share a joint goal of environmentally sound operation of the terminal and tankers, we have differing views of the actions required and the expenditures necessary to achieve that end. Historically, this conflict

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has been based largely on the difference between industry experiences in the rest of the world, including the risk tolerance of the high-seas shipping industry, juxtaposed with the extremely local and conservation-based interests of citizens of the region affected by the Exxon Valdez spill.

In this third decade of the Valdez crude oil trade, however, a new element has entered the equation: North Slope oil production has passed from being a growing development through midlife and into decline. This decline is expected to continue and the industry leaders who now operate the system are developing plans for an "end game" strategy that will allow them to withdraw from Alaska in a controlled manner.

A major element in this strategy will be cost control, and expenditures for spill prevention and response will come under increasing pressure. Our challenge is to counter any cost-reduction efforts that would result in increased risk. At the same time we must continue to promote improvements such as "green ship" technology, increased response capability in adverse weather, invasive species interdiction, and overall citizen advocacy.

While reading the council's recently published book, *The Spill: Personal Stories from the Exxon Valdez Disaster*, I was struck by the fact that, in nearly every chapter, the person speaking, regardless of affiliation or involvement, mentioned the role that communication, or the lack thereof, played in the events leading up to the spill and in every aspect of the response. As we look forward to the challenges of the next decade we must remember this lesson and not lose sight of the fact that effective communication is the most important tool in the spill prevention and response arsenal.

If we plan and conduct the business of our committees, staff and board with a focus on effective communication, we will greatly increase the probability that, when the last tanker departs from the Valdez terminal, there will have been no recurrence of the Exxon Valdez spill. If, on that final day, Prince William Sound remains the pristine and uniquely productive place it was before it became an industry transportation corridor, only then will we be able to say that our job is done, and that it was done well.

Note: This report covers the period from July 2008 through June 2009.

Mission & Responsibilities

Citizens Promoting Environmentally Safe Operation of the Alyeska Terminal and Associated Tankers

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

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.

Consistent with its mission, the council's structure and responsibilities stem from two documents. The first is a contract with Alyeska, which operates the trans-Alaska pipeline as well as the Valdez terminal. Most of the council's operating funds come from this contract.

The second guiding document, enacted after the council was created, is the Oil Pollution Act, which required citizen oversight councils for Prince William Sound and Cook Inlet. Their purpose is to promote partnership and cooperation among local citizens, industry, and government, to build trust, and to provide citizen oversight of environmental compliance by oil terminals and tankers.

The Act allows an alternative, pre-existing organization to fulfill the requirement for citizen oversight and our council has done so for Prince William Sound since 1991. Each year, the U.S. Coast Guard certifies that the council fosters the general goals and purposes of the Oil Pollution Act and is broadly representative of the communities and interests as envisioned in the Act.

- Monitor, review, and comment on oil spill response and prevention plans prepared by Alyeska and by operators of oil tankers.
- Monitor, review, and comment on the environmental protection capabilities of Alyeska and the tanker operators, as well as on the environmental, social, and economic impacts of their activities.
- Review and make 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.

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The council's contract with Alyeska pre-dates the Oil Pollution Act, but the similarities in the powers and duties given the council in the two documents are not coincidental. Many people involved in the establishment of the council also promoted citizen involvement requirements in the federal law.

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:

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 was initially funded at $2 million a year. The funding is renegotiated every three years; current Alyeska funding is approximately $3 million a year. The council's total annual budget is about $3.7 million.

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 Alert prevention and response tug, shown here, is one of the vessels used to escort loaded oil tankers out of Prince William Sound. Photo by Joel Kennedy.

Oil Spill Prevention

To ensure a maximum level of safety, the council reviews all aspects of the oil transportation system in Prince William Sound. These include operations of oil tankers and the Valdez Marine Terminal, oil spills and other incidents, and the adequacy and maintenance of the Coast Guard's Vessel Traffic Service.

Tanker Safety

Escort System

The heart of the system for preventing oil spills in Prince William Sound is the fleet of rescue and response tugs that accompany loaded tankers from Valdez to the Gulf of Alaska. Thanks to years of study and analysis, and considerable investment by the shipping industry, this system is widely considered among the best in the world. This fleet, operated by Crowley Maritime Corporation under contract to Alyeska's Ship Escort Response Vessel System, includes five state-of-the-art, 10,000-horsepower tugs that have demonstrated their capabilities in actual incidents and in various sea trials observed and reviewed by the council.

Federal law requires that loaded single-hull oil tankers be escorted by two tugs in Prince William Sound. The current practice is for double-hull tankers to have double escorts as well. However, it's unclear what will happen with the tanker fleet's transition to double-hull vessels. (The last single hulled-tanker left the Valdez oil trade in the summer of 2009 and is not expected to return.) Consequently, the use of double escorts will hinge on voluntary compliance and on state-level requirements unless federal law is changed. The council is concerned that the tanker companies may propose to reduce the escort and response system now that mandatory requirements are sunsetting.

The council position on escorts, adopted in 2007, calls for preserving the two-tug requirement.

The council's efforts to preserve the dual-tug escort system took significant steps forward in the past year. In early 2009, the Alaska House and Senate unanimously passed resolutions in favor of maintaining the escort system after the federal requirement sunsets in 2015.

In May 2009, Alaska's U.S. senators, Lisa Murkowski and Mark Begich, introduced federal legislation to preserve the escort system. Their bill would amend the Oil Pollution Act to place double-hulled tankers under the same dual-escort requirement that already covers single-hull tankers.

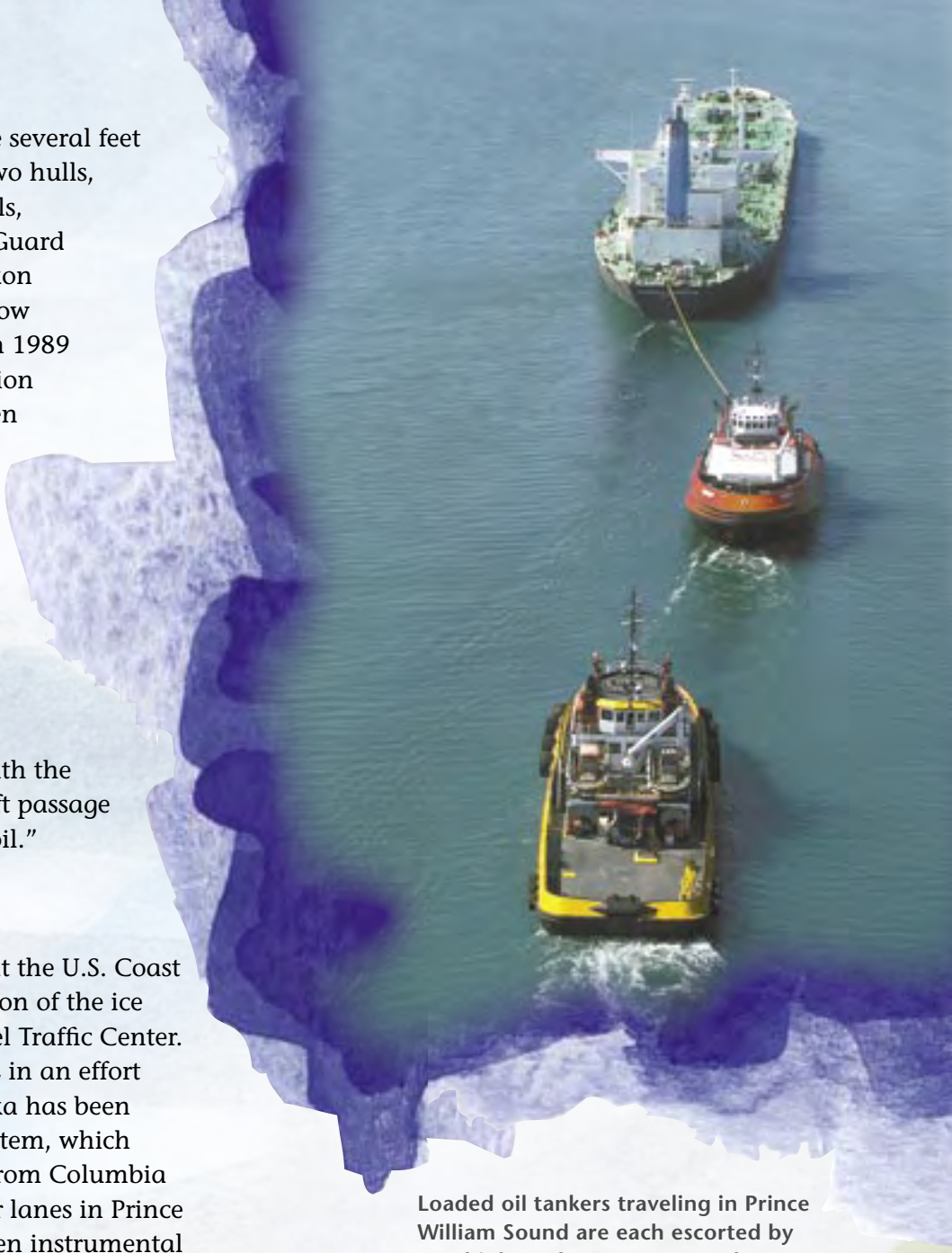
"The current oil transport system in Prince William Sound is one of the safest in the world," Murkowski said in a prepared statement after introducing the bill. "While I recognize that double-hulled tankers are an improvement over single hulls, they will not, by themselves, prevent oil spills. Even with double hulled tankers, we must not compromise the existing safety system which has been so successful. We must remain ever vigilant and not forget the devastation that the Exxon Valdez oil spill caused."

"The dual escort coverage of tankers operating in Prince William Sound has helped ensure we have the best oil transportation system in the world," Begich said. "The tractor tugs have proved their usefulness several times when tankers needed assistance. Their continued use is inexpensive insurance to protect the environment of Prince William Sound and maintain the flow of oil."

Alaska Congressman Don Young worked with his fellow members of the U.S. House Committee on Transportation and Infrastructure on a House version of this provision.

Double-hulled tankers, which have several feet of protective space between their two hulls, can prevent or reduce some oil spills, but are not a panacea. The Coast Guard estimated a double hull on the Exxon Valdez might have cut the oil outflow from its grounding on Bligh Reef in 1989 from 11 million gallons to 4.4 million gallons, which would still have been a catastrophic spill.

Editorial reaction to the escorts legislation was swift and positive. "Prevention is gospel in protecting the Sound and Alaska's prosperity," the Anchorage Daily News wrote soon after Murkowski and Begich introduced their legislation. "Our senators have offered an 'amen' with the force of law. Their bill deserves swift passage to assure safe passage of Alaska's oil."



Loaded oil tankers traveling in Prince William Sound are each escorted by two high-performance tugs. Photo courtesy of Alyeska Pipeline.

Ice detection radar

The council is pleased to report that the U.S. Coast Guard has completed the installation of the ice detection radar monitor in its Vessel Traffic Center. The system was introduced in 2002 in an effort spearheaded by the council. Alyeska has been operating and maintaining the system, which helps to detect and track icebergs from Columbia Glacier as they drift into the tanker lanes in Prince William Sound. The system has been instrumental in assisting oil tankers navigating through the Sound during the months when ice flow is more prominent.

SAFETUG projects

In 2008, the Council joined the Maritime Research Institute Netherlands' SAFETUG joint industry projects, which included nearly 30 industry participants. The SAFETUG I portion of the project focused on the systematic modeling of tug performance in heavy weather. The institute has built a facility that utilizes scaled down tugboats for use in its research. We believe the data collected during the project will help in determining whether a more capable vessel is needed for duty at Hinchinbrook Entrance and in the Gulf of Alaska.

The project has now progressed to SAFETUG II, which will examine tug motion in relation to various weather and sea conditions, human performance of tug crews in various weather and sea conditions, and crew training. SAFETUG II is expected to be completed in spring 2010.

The next step will be for staff to conduct an analysis of the data gathered during SAFETUG I and relate it to the existing fleet of Prince William Sound tanker escort vessels.

Oil Spill Preparedness & Response

The council has devoted significant resources to preventing oil spills, but the risk cannot be eliminated entirely. We must be prepared to respond quickly and effectively in case prevention measures fail. Two council programs address this need: Oil Spill Prevention and Response Planning, and Oil Spill Prevention and Response Operations.

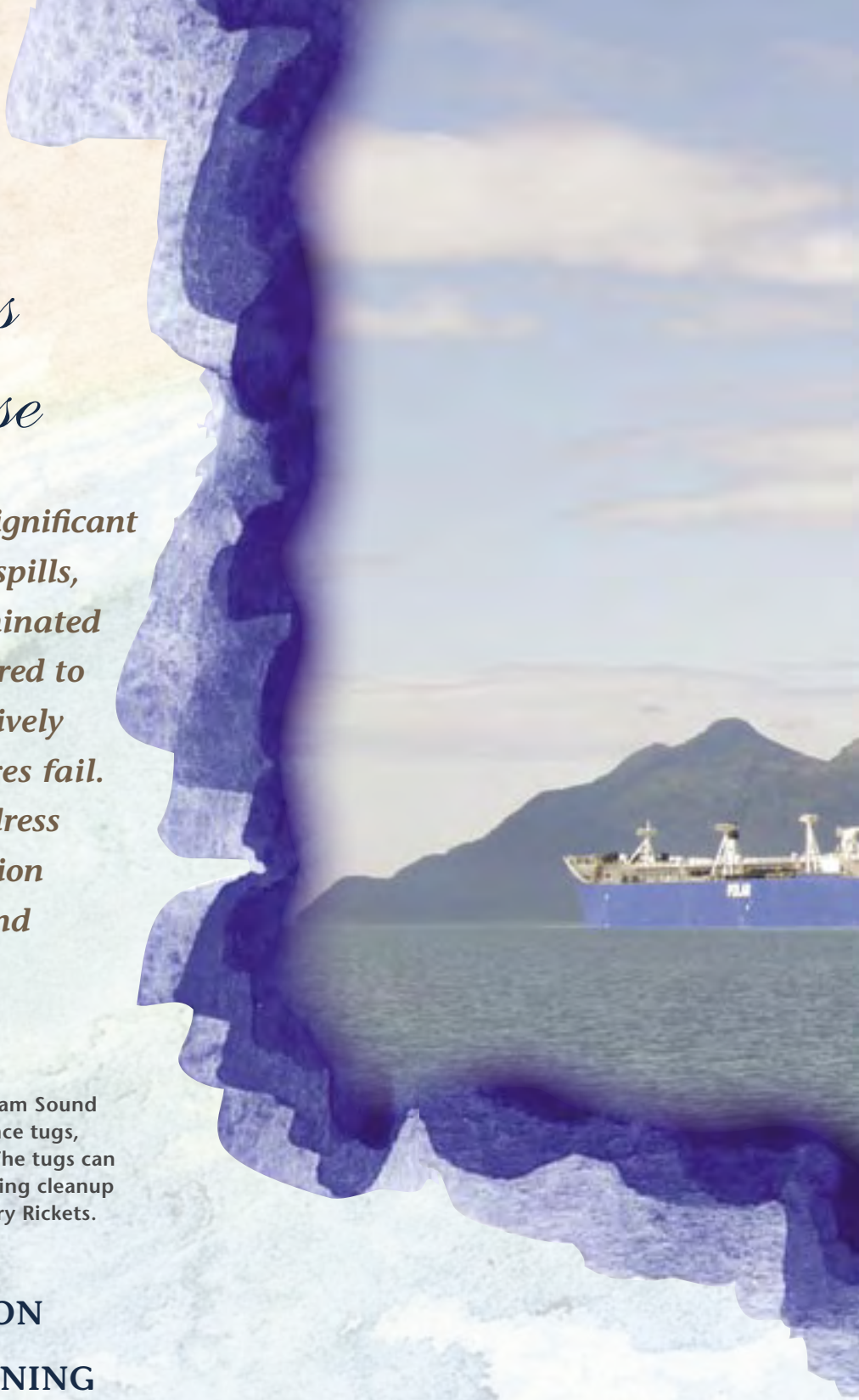


Photo: Loaded oil tankers in Prince William Sound are accompanied by two high-performance tugs, as required by their contingency plans. The tugs can assist a tanker in distress, as well as starting cleanup efforts should a spill occur. Photo by Barry Rickets.

Oil Spill Prevention and Response Planning

State and federal laws require the operators of oil tankers, the Valdez Marine Terminal, and the trans-Alaska pipeline to prepare detailed plans showing how they will respond to oil spills should prevention measures fail. The council devotes much time and attention to oversight of these all-important contingency plans.

In many cases, the council participates with government and industry in work groups that develop and improve contingency plans. The council conducts independent reviews and submits comments and recommendations from these reviews.

The council promotes compliance, enforcement, and funding for state and federal regulations and oversight, and also supports the Alaska Coastal Management Program. Along with local communities, the council encourages incorporating local knowledge of sensitive areas into contingency planning.

Tanker Contingency Plans

The Prince William Sound Tanker Oil Discharge Prevention and Contingency Plan was approved in November 2007. The plan is in effect for five years, with the next renewal slated for November 2012.

As part of its approval, the Alaska Department of Environmental Conservation agreed to participate with the council and the Sound's oil shippers to promote continuing improvements to the plan. The resulting work group undertook a major effort to verify that personnel listed as being assigned to respond during the first 72 hours after a spill were actually available to do so. Various drills were also conducted in the past year to verify commitments contained in the contingency plan.

Valdez Marine Terminal Contingency Plan

The Valdez terminal contingency plan was approved in May 2008. The council has participated in the continuous improvement of this plan over the course of several years.

A work group consisting of the council, the state-federal Joint Pipeline Office, the Coast Guard, and Alyeska Pipeline Service Co. has met regularly in an effort to provide open communication and improve the contingency plan. The council considers the cooperation that has taken place between these various entities to be one of the most successful processes in which it has participated. This work group has tackled issues such as training, storage tank status and inspections, facility status, and drill and exercise design, and this cooperation is expected to continue in the years ahead.

Unified and Subarea Oil and Hazardous Substance Preparedness Plans

The Unified Plan is the joint federal/state, coastal/inland plan that represents a coordinated effort by governmental agencies to respond to pollution events in Alaska. The Unified Plan meets the pollution response contingency planning requirements applicable to the state and federal government and fulfills the requirements for a regional contingency plan and a state master plan. Information from the Unified Plan is supplemented by subarea contingency plans which apply to specific areas within the state.

The Kodiak Subarea Plan was under public review in spring 2009, and the council submitted comments. The public comment period for the latest round of changes to the Unified Plan ended in July 2009 and the council provided comments on that plan as well. These plans periodically undergo revision and updating, and the council participates in discussions and tracks these changes.

Geographic Response Strategies

These are oil-spill response mini-plans specific to sensitive areas and resources, such as salmon streams and clamming beaches. These pre-established defense plans are customized to protect specific sensitive areas from oil after a spill, and they allow response teams to take immediate action during the critical first few hours of a spill response. These plans show responders where sensitive areas are and where to place spill protection resources.

Work on designating additional sites is under way in Prince William Sound. The council had focused on Kodiak for the last few years, and has now moved its focus back to Prince William Sound.

The council is also participating with the Alaska Department of Environmental Conservation, the Coast Guard and Alyeska to test at least five of the existing sites in Prince William Sound each year. This involves actually deploying the equipment prescribed in the plans and providing suggestions for improvement.

Weather and sea current data collection

Weather conditions and sea currents affect nearly every aspect of oil transportation safety. They can play a role, sometimes the determining role, in efforts to prevent or to clean up oil spills. Consequently, the council promotes constant improvements in the system for collecting weather and sea current information for Prince William Sound.

A key council effort in the coming year will be to improve detection and prediction of barrier jets near the tanker lanes by working with the Prince William Sound Science Center of Cordova to purchase and install a weather station at Cape Saint Elias Lighthouse.

Barrier jets are localized high winds formed when a low pressure storm system approaches a barrier such as the Gulf of Alaska coastal mountain ranges. The mountains block the general pressure flow and concentrate it into jets of wind paralleling the coast. Much steeper ocean waves can also be created by barrier jet conditions.

Another key council effort involved an exercise

Top: A fishing boat unreels oil-spill boom from an Alyeska barge during a training exercise near Hinchinbrook Entrance during the summer of 2009. Photo by Dan Gilson.

Above: Dan Gilson, a citizens' council staffer, stows away boom on the deck of an Alyeska response barge after a training exercise near Hinchinbrook Entrance in Prince William Sound. Photo by Ruth Black, Alyeska Pipeline.

An Alyeska response worker takes a break during a training exercise near Hinchinbrook Entrance in Prince William Sound. Photo by Dan Gilson.

in the summer of 2009 to validate the Alaska Ocean Observing System model's effectiveness in predicting wind, waves, and ocean circulation in Prince William Sound. The council was one of many supporting stakeholders, and focused its efforts on collecting saline layering data. Saline layering—meaning different salt concentrations at different water depths—can affect how best to respond to an oil spill and the likelihood of oil being dispersed.

Council's incident response plan

The council staff updated the organization's internal plan for responding to a major oil spill and presented it to the council board in May 2009. The new plan includes use of the council's Valdez office in addition to the smaller office located at Alyeska's Valdez Emergency Operations Center.

Oil Spill Prevention and Response Operations

It takes more than detailed contingency plans to ensure effective response to an oil spill or an emergency that could cause one. It also takes equipment, trained people, and a comprehensive management system. And it takes practice, practice, practice. The council's oil spill response operations program monitors the response readiness of Alyeska's Ship Escort Response Vessel System and the tanker companies, and makes sure the council itself is prepared to respond to spills and other emergencies.

Council staffers, contractors, and volunteers monitor and report on spill response drills, exercises, and training to assess readiness and provide recommendations for improvement. Most of the work is done by council staffers, who present annual reports on activities, lessons learned, recommendations, and outstanding issues.

Two major multi-day drills were conducted during the year covered by this report. In late September 2008, Tesoro conducted a Gulf of Alaska exercise that focused on issues outside Prince William Sound, dispersants, coastal community relations, and on-water equipment deployment.

Polar Tankers and Alyeska conducted the other major exercise in two stages during April and May of 2009 in Valdez. The exercise focused on dispersant use, wildlife, sensitive area protection, and the Regional Stakeholders Committee, set up to provide an information conduit between response managers in Valdez and communities affected by the spill.

Alyeska conducted many other exercises during the past year, including six tanker towing exercises.

Two exercises were conducted at Alyeska's Valdez Marine Terminal.

The first, in October 2008, involved a simulated spill of about 6.5 million gallons of oil into Port Valdez (the body of water upon which the city of Valdez and the Alyeska terminal are located). This exercise focused on response to a spill into the water and included the use of dispersants.

The second exercise, in June 2009, focused on response tactics for the terminal's settlement ponds, including laying a temporary pipeline to transfer recovered fluids from the settlement pond to a simulated barge.

Prince William Sound recovery rate analysis

In 2006, the state approved Alyeska's plans to adopt a newer booming system—called the Current Buster—for cleaning up spilled oil near shore. The council was concerned about whether the Current Buster was truly equivalent to the older booming systems it replaced, and so hired a contractor to analyze spilled oil recovery rates with the various systems.

This analysis showed the Current Buster to be more than twice as effective as the traditional boom configuration. The advantage increases when oil is spread out into a thinner slick, as the Current Buster can operate at speeds of up to 4 mph, versus only about 1 mph for the older booming systems. Thus, the Current Buster can skim a larger area of water in a given amount of time.

A recovery rate analysis was also performed on the Prince William Sound response system, with

This boat pulls protective boom into place during a Geographic Response Strategy training exercise near Hinchinbrook Entrance, where loaded tankers pass out of Prince William Sound. Photo by Dan Gilson.

results that varied widely depending on what type of spill was analyzed. The analysis indicated the current system might pick up as little 1,000 barrels from an instantaneous spill of 300,000 barrels, but as much as 247,000 barrels if the same-size spill was in the form of a continuous release over an extended period of time.

As the state of Alaska requires the oil industry to plan for recovering 300,000 barrels of oil in 72 hours, this report raises doubt that the planning standard can be met in the field even under the best of conditions.

The council is concerned about these findings, and will in coming years seek ways to improve oil recovery capability.

Fishing vessel readiness review project

The council launched a project during the winter of 2008-2009 to verify the readiness of Alyeska fishing vessel fleet. In winter, fishing captains may be outside of Alaska or boats may be on shore.

A council contractor telephoned vessel captains, followed by in-person surveys of the six ports with vessels in the program.

While most Tier 1 vessels—those required by contract to respond the fastest—appeared ready for fast response, the survey showed that just under half of the 138 Tier II captains appeared ready to respond within 24 hours as specified in their contracts. As this report went to press, the council was still considering how Tier II readiness could be improved.

Environmental Protection & Science

The Oil Pollution Act directs our council to review, monitor, and comment on Alyeska's environmental protection capabilities, as well as the actual and potential environmental impacts of terminal and tanker operations. The Act also calls on us to develop recommendations on environmental policies and permits. The council carries out this work through two major programs: Terminal Operations, and Environmental Monitoring. Under the leadership of the Scientific Advisory Committee and the Terminal Operations and Environmental Monitoring Committee, the council commissions scientific studies to determine actual or potential risks, to document levels of pollution and biological effects, and to better understand new technologies and the environmental costs or benefits that might be associated with their use.

Terminal Operations

Besides posing the risk of a major oil spill caused by earthquake or accident, Alyeska's Valdez tanker terminal produces ongoing air and water pollution from routine operations, as allowed by its permits from regulatory agencies. The council oversees terminal operations in an effort to not only minimize the risk of spills, but to make sure that permitted pollution is within or below regulatory limits and that those limits are set at the lowest feasible levels.

The council has monitored oil loading at Alyeska's Valdez tanker terminal since January 2002. At that time, an average of 968,000 barrels of North Slope crude moved onto tankers every day. Since then, oil flow decreased every year, reaching a low in 2008 of about 640,000 barrels per day. The downtrend started in the early 1990s,

when oil flow through the terminal peaked at about two million barrels per day.

In 2002, the oil moving through the terminal was valued at $700,000,000 per month. As a result of prices rising faster than throughput dropped, the value of the oil increased to a peak of $2.7 billion per month in June 2008. Then, as prices dropped, the oil values dropped to a low of $675 million per month in December 2008. Increasing prices and a slight rise in throughput increased the value of oil loaded to approximately $1.2 billion in May 2009.

Council staff continues to monitor oil storage in tanks installed for that purpose at the Valdez terminal. Average inventories appear to have increased and the tanks are typically 50 percent to 80 percent full. Some excursions above 80 percent have occurred when tanker loading was slowed by extreme weather conditions or maintenance work on the loading berths.

Top: Prince William Sound is dotted with countless small, beautiful islands like this one. Photo by Bill Driskell.

Above: Alyeska Pipeline's Valdez Marine Terminal, where oil tankers load their cargoes of North Slope crude. Photo courtesy of Alyeska Pipeline.

This Anguil incinerator burns vapors collected during the ballast water treatment process. Two such units have been installed at the Ballast Water Treatment Facility. Photo by Tom Kuckertz.

These men participated in a council-sponsored marine firefighting symposium in May 2008. Photo by Billy Jo Gehring.

Air and Water Quality

For many years, the council has been concerned about the emission of hazardous air pollutants from the Ballast Water Treatment Facility.

This facility cleans oily ballast water discharged by tankers arriving in Valdez (The ballast water is contaminated as a result of being carried north in the same tanks used to haul oil south.) The cleaning process in the past has released large quantities of hydrocarbon vapors into the air.

These vapor emissions are in the process of being dramatically reduced by a major, multi-year upgrade that Alyeska is performing at the ballast water facility. The council staff has participated in design review of the project from the start; when complete in 2010 or 2011, it is expected to reduce vapor emissions to near zero.

Firefighting equipment in Port Valdez

The council became concerned in 2007 that the equipment available to fight a fire on a tanker in Port Valdez might not meet contingency plan requirements, which call for a fire-fighting vessel to be present during tanker operations. The council hired a team of contractors to assess firefighting capabilities. The team found that the mainstay of the fire-fighting system—the fleet of escort tugs—were among the best equipped such vessels to be found anywhere in the country and that they met or exceeded all regulations, standards, and best industry practices. The team noted that the individual components of the system—the Valdez Fire Department, Alyeska's Ship Escort Vessel Response System, the Alyeska Fire Brigade, and the U.S. Coast Guard—fully satisfied regulatory requirements individually. The council's team recommended training and exercising together in order to be fully prepared for on-water incidents.

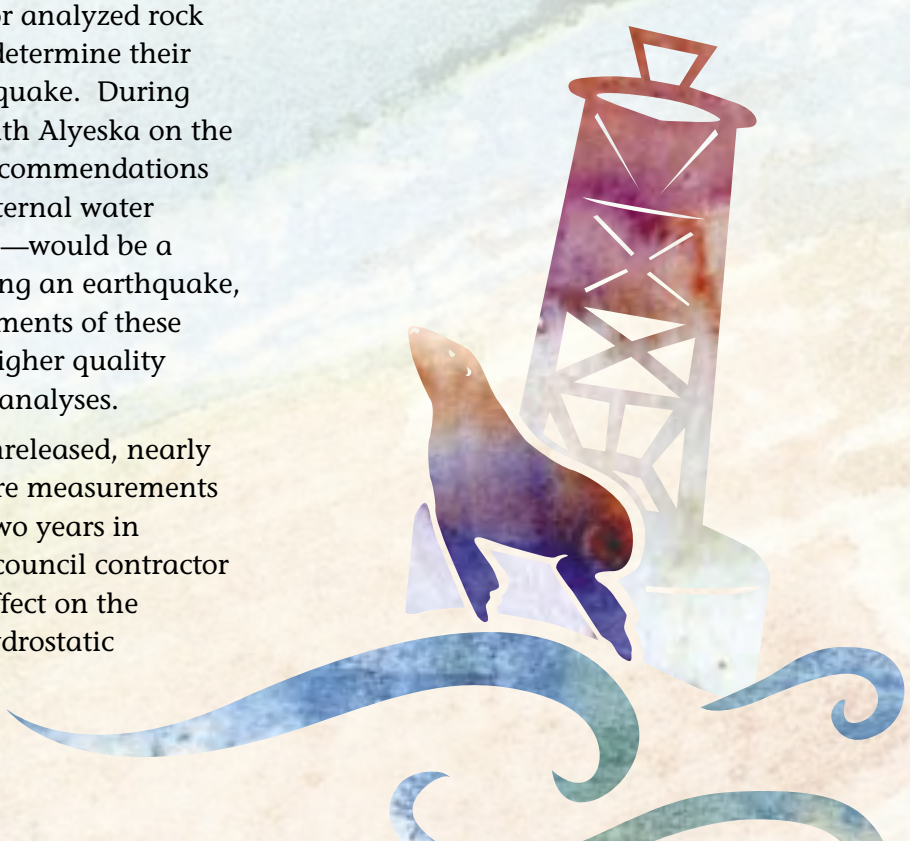
The team's "Final Report — Firefighting in Port Valdez" is available in Portable Document Format at tinyurl.com/pwsffrpt on the council's website.

These incinerators at Alyeska Pipeline's Valdez terminal burn oily vapors that escape from the cargo holds of oil tankers as they take on North Slope crude.

Slope stability at the Valdez Marine Terminal

During 2006, a council contractor analyzed rock slopes at the tanker terminal to determine their stability in the event of an earthquake. During 2008, the contractor conferred with Alyeska on the company's implementation of recommendations from the 2006 study. Because internal water pressure—or hydrostatic pressure—would be a major factor in slope failure during an earthquake, discussions centered on measurements of these pressures and how to integrate higher quality measurements into slope failure analyses.

Alyeska provided a heretofore unreleased, nearly continuous, time-series of pressure measurements by automatic instruments over two years in support of another project. The council contractor assessed the new data for their effect on the validity of assumptions about hydrostatic pressures in the rock slopes.



Stability of the slope immediately behind Alyeska's vapor control and electrical generation facility was re-examined in light of the new data, revealing a the occurrence of significant pressure fluctuations not observable in data collected manually a few times per year from measuring devices (called piezometers) installed during construction of the terminal in the late 1970s. The piezometers were installed to provide a warning of increasing hydrostatic pressures behind the slope face, which would increase the probability of slope failure.

The contractor's analysis raised concerns that data from the construction-era piezometers may not accurately indicate the true range of hydrostatic pressures in the slope and hence could fail to detect an increased risk of slope failure due to increasing water pressures in the rock.

The council's contractor also found that drainage holes drilled to relieve pressure in the rock slopes were only partially effective, due to insufficient maintenance to remove clogging, to the impermeability of the rock behind the slope, and to the spacing of the drain holes.

The council has urged Alyeska to consider additional steps to improve slope drainage and to make provisions to contain all fallen rock blocks from critical slopes within an area near the slope base.

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The contractor's report, "Seismic Re-Engineering of the Valdez Marine Terminal," is available in Portable Document Format at tinyurl.com/pwsseismic on the council website.

Floatplanes are frequently used to reach remote parts of Prince William Sound for council research projects. Photo by Bill Driskell.

Environmental Monitoring

Chemical Dispersants

Chemical dispersants are substances designed to disperse spilled oil down into the water column, rather than leaving it floating on top in a slick. The council promotes research and testing to increase knowledge about chemical dispersants and the environmental consequences of their use in Alaska waters.

The council has raised concerns about the efficacy and toxicity of dispersants for years, urging regulatory agencies to be conservative in their use. Because outstanding questions have not been answered and research has not demonstrated that dispersants would work at all in the waters of Prince William Sound, these concerns remain largely unaddressed and the council continues its advocacy for research into dispersant use in cold seawater.

Council representatives continue to participate in the Alaska Regional Response Team's Science and Technology Committee as it prepares to update the Alaska dispersant use guidelines. This committee is making use of the council's comprehensive literature review, completed last year, to aid in determining the state of dispersants science and any changes in research results.

September 2008 saw a significant policy shift on dispersants when the U.S. Department of the Interior adopted a new requirement for more intensive review before the chemicals can be used on oil spills in large areas of Prince William Sound and Cook Inlet.

The policy shift withdrew Interior Department approval for what is called 'preauthorized' dispersant use in substantial parts of the two water bodies. Instead spill managers will need to decide about dispersant use on a case-by-case basis.

Preauthorization means dispersants can be used by oil-spill response managers without consulting Interior or the other agencies with responsibilities in the affected area. The areas at issue are in what was called Zone 1 under dispersant use guidelines adopted for Cook Inlet in 1986 and for Prince William Sound in March 1989, shortly before the Exxon Valdez spill.

The green crab is a potential invasive species for Prince William Sound, though it hasn't arrived yet. Shown here are a male and female of the species, which has already invaded waters as far north as Vancouver Island, British Columbia, where this photo was taken. Photo by Dan Gilson.

Invasive Species

Invasive species, long a major concern for the citizens' council, refers to the problem of non-indigenous plants, animals, or microorganisms reaching Alaska and establishing themselves here. Such invasions can harm native species, including commercially valuable ones like salmon. For the citizens' council, the primary concern is non-indigenous organisms arriving via oil tankers—either attached to hulls or riding in the ballast water that the tankers discharge into Prince William Sound before loading North Slope crude at the Alyeska terminal in Valdez.

The ballast water problem arises from the fact that some tankers employ segregated ballast tanks where "clean" sea water is used for stability. This "clean" ballast, taken in at the port of origin, is filled with living organisms that are discharged with it into Prince William Sound and Port Valdez as the tankers approach the Alyeska terminal for loading. Because of the potential for invasions by harmful species, the council has made this issue a high priority since 1996.

The council supported an effort in the state legislature to create the Alaska Council on Invasive Species to serve as a statewide clearinghouse and coordinating body. The bill would create a 14-member council. Five seats would be held by commissioners of state departments. The rest would represent soil and water conservation districts, conservation organizations, farmers, landscapers, commercial fishermen, commercial shippers, the University of Alaska agricultural program, Native corporations, and the public at large. Although the bill did not make it out of committee during the 2009 session, it will remain "alive" through the end of the 2010 session.

On the federal side of the invasive species issue, council staff member Lisa Ka'aihue continued to serve on the national Invasive Species Advisory Committee, which provides input to the National Invasive Advisory Council on matters of interest to the council such as ballast water management.

The council continued to provide leadership to citizen monitoring efforts, particularly looking out for green crab. The green crab, a known ballast water invader, is an efficient and voracious predator that has invaded the coastline from San Francisco up to Vancouver Island. It is expected that this crab will find its way to Alaska waters. During the past year, the citizen monitoring network was expanded to include Seward.

The council, in partnership with the U.S. Fish and Wildlife Service, continued to work on a project to describe biofouling communities on large vessels that operate in Prince William Sound, including oil tankers, barges, ferries and cruise ships. Biofouling occurs when organisms, like barnacles or mussels, attach themselves to vessel hulls. The study will provide important information on which vessels pose the greatest risk of introducing invasive species via fouling. Results are expected to be available in the fall 2009.

Regional Environmental Monitoring

In 1993, the council established a Long-Term Environmental Monitoring Program, called LTEMP. The program assesses the status of hydrocarbon levels in the Sound, as well as long-term trends and any new developments that could have an effect on those levels.

Samples are collected at 10 intertidal sites in Prince William Sound and the Gulf of Alaska. Mussel tissues and sediments from the sites are analyzed in a laboratory to determine whether hydrocarbons are accumulating and, if so, their source. The result is the largest chronological data set ever compiled for hydrocarbons in Prince William Sound.

LTEMP sampling will be conducted less frequently in the future, as laid out in a new sampling plan developed after an independent review accepted by the board in January 2009. The new plan requires one sampling session per year at the two Port Valdez sites and the Knowles Head site. Every fifth year, all 10 sites will be sampled. In the past, the sampling frequency was as high as three times annually at all ten sites.

LTEMP reports, along with additional information on the program, are available at www.tinyurl.com/ltemp on the council website.

Scientist Bill Driskell collects mussels for the citizens' council's Long-Term Environmental Monitoring Program. Photo by Lisa Ka'aihue.

Expedition leader Howard Feder sifts Prince William Sound bottom sediments during a sampling trip as part of an Alyeska research project. Photo by Jacquelyn Olson.

Outreach

The charter boat Auklet catches the early morning sun in a Prince William Sound bay during a council research trip. Photo by Bill Driskell.

Member Relations

The council staff includes a full-time position, called Outreach Coordinator, to maintain productive relations with the 18 communities and interest groups that make up its membership. The coordinator visits communities in the region, attends member group functions, gives presentations, coordinates special events involving the council and its member groups and generally encourages citizen involvement in the council's work.

Over the past year, the council participated in outreach activities on both local and national levels. Locally, the council participated at the Seward Art and Music Festival, the premier of the film Black Wave in Cordova, Chugach summit in Anchorage, Alaska Municipal League in Ketchikan, Alaska Forum on the Environment in Anchorage, Alaska Wilderness, Recreation and Tourism Conference in Girdwood, Cook Inlet RCAC meeting in Kenai, Copper River Nouveau in Cordova and the Alaska Oceans Festival in Anchorage.

A major event this year was the 20th anniversary of the Exxon Valdez oil spill, which fell on March 24, 2009. A multi-community event was held with five sites connected via videoconferencing. The council also assisted with a panel discussion on "Oil Spills in the North Pacific and Arctic 1989-2008", and gave a presentation to University of Alaska students.

In March the council participated in a reception co-sponsored by the National Oceanic and Atmospheric Administration in Washington DC to recognize the anniversary of the spill.

The council participated in several national events, including Pacific Marine Expo in Seattle; the Society for Environmental Toxicology and Chemistry's annual meeting in Tampa; and the Arctic Marine Oilspill Program Technical Seminar in Vancouver BC.

Also, the Outreach Coordinator helped organize a presentation by Kodiak students on invasive species at a council meeting, sponsored public receptions in Cordova and Valdez, and made a presentation to students in Chenega Bay. Other council staffers made presentations to Valdez students.

Information and Education Committee

The Information and Education Committee, formed in May 2008, has held seven meetings, one in person. The committee is working on a grant application for students; outreach ideas to replace the radio campaign which was cut from the coming year's budget; a possible update to the council website; assisting with outreach for projects from other committees, such as invasive species, community impacts planning, and geographic response strategies; and discussing ways to recruit volunteers. Plans have begun for events commemorating the 20th anniversary of the Prince William Sound Regional Citizens' Advisory Council on February 20, 2010.

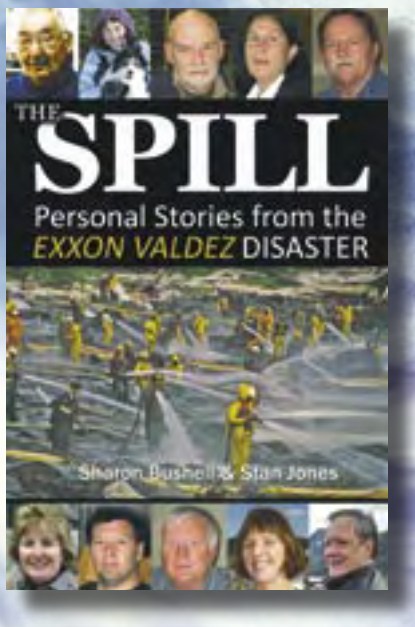
A Kodiak fishing boat passes under a highway bridge. Like most of the council's member communities, Kodiak is heavily dependent on commercial fishing. Photo by Tom Kuckertz.

Publications

The council increases public awareness on a wide range of issues pertaining to crude oil transportation through printed and electronic publications.

The Observer, a free quarterly newsletter, is distributed throughout Prince William Sound, the northern Gulf of Alaska, lower Cook Inlet and the Kodiak Archipelago. The Observer is also sent on request to interested citizens elsewhere, as well as to regulators and industry. In addition, it is posted on the council website, www.pwsrcac.org.

The Observer covers council activities, developments in the oil transportation industry, and news about policy and operational issues related to marine oil transportation. Major oil spill drills are covered, and Alyeska is invited to submit a column for each issue. In the course of preparing articles for The Observer, the council frequently invites feedback from appropriate industry and regulatory personnel.



This year the council restructured an existing staff position to better enhance outreach efforts. Formerly the "webmaster" position, the new public communications project manager produces and edits the Observer, manages the council web site, and is expanding the council's outreach efforts via social media such as Twitter and Facebook. You can find us at www.twitter.com/pwsrcac or become a council Facebook "fan" at www.facebook.com/pwsrcac.

The council increases public awareness on a wide range of issues pertaining to crude oil transportation through printed and electronic publications.

The council makes available a 14-minute video about its origins, mission and activities. This video, titled "A Noble Experiment: The Story of the Prince William Sound Regional Citizens' Advisory Council," is shown at conferences and other events attended by the council, and is distributed free to member entities for use in informing their constituents about the council.

Once a year, the council summarizes its work in an annual report such as this one.

The council produced two publications in connection with the 20th anniversary of the Exxon Valdez spill in March 2009.

The first is an oral history of the event and its aftermath, titled: "The Spill: Personal Stories from the Exxon Valdez Disaster." This book features interviews with over 60 people who had first-hand experience with the spill. They include such Alaskans as fishermen, villagers, and local government officials; officials of Exxon Corp. and other companies involved in the spill and the cleanup effort; government agency personnel who dealt with the event, and Joe Hazelwood, captain of the Exxon Valdez when it struck Bligh Reef on March 24, 1989. The book also includes numerous photographs.

The second council publication produced for the 20th anniversary is a then-and-now report on safety improvements to the Prince William Sound oil transportation system since 1989.

The council also produced a 29-minute film called "Then & Now: The Alaska Oil Spill at 20." It features footage of the Exxon Valdez spill and its effects on the environment, animals and people involved. It also highlights major improvements in the transportation of oil that have come about since the spill as a result of cooperation between citizens, the oil industry, and regulatory agencies. To arrange a presentation from the council, contact either of our offices.

State Government Relations

The council monitors state actions, legislation and regulations that relate to terminal or tanker operations, or to oil spill prevention or response. To track developments in the state capital, the council retains a monitor under contract during the legislative session. This area of council activity is coordinated by a Legislative Affairs Committee made up of members of the council board.

During the 2009 legislative session, the committee focused primarily on securing adoption of a legislative resolution supporting continuation of the Prince William Sound dual-tug escort system. As detailed elsewhere in the report, both chambers of the Alaska Legislature passed the resolution unanimously in March 2009, the month of the twentieth anniversary of the Exxon Valdez spill.

Federal Government Relations

The council monitors federal government actions and issues through contract representatives in Washington, D.C. The council's efforts at the federal level during the past year also focused primarily on preservation of the escort system.

Citizens' council board member Patience Andersen Faulkner visits U.S. Sen. Lisa Murkowski during a March 2009 trip to Washington by council representatives for the 20th anniversary of the Exxon Valdez spill. Photo by Stan Jones.

Recertification

The Coast Guard certifies the council as the federally approved citizens' advisory group for Prince William Sound, pursuant to the Oil Pollution Act. 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 from industry, interest groups, and citizens. The council fulfills the requirement for an industry-funded citizens advisory group, but it was established before the law was enacted.

Board of Directors

Who We Are

The council is an organization of organizations. Our members include state-chartered cities and boroughs, tiny Alaska Native villages with tribal governments, Native corporations, commercial fishing organizations, an environmental consortium, and groups representing the tourism industry.

Each member entity chooses one representative to our board. The lone exception is Valdez. It 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.

Who serves on the board?

The names and faces change, but current and recent board members have included commercial fishermen, a schoolteacher, the chief executive of a regional Native corporation, tour-boat operators, an oilfield engineer, and a village mayor.

Executive Committee

Stephen Lewis
President
City of Seldovia

Walter Parker
Vice President
Oil Spill Region Environmental Coalition

Cathy Hart
Secretary
Alaska Wilderness Recreation & Tourism Association

Sheri Buretta
Treasurer
Chugach Alaska Corp.

Jane Eisemann
Member at Large
City of Kodiak

Blake Johnson
Member at Large
Kenai Peninsula Borough

Dorothy M. Moore
Member at Large
City of Valdez

Other Directors

John Allen
Community of Tatitlek

Patience Andersen Faulkner
Cordova District Fishermen United

Nancy Bird
City of Cordova

Al Burch
Kodiak Island Borough

Pat Duffy
Alaska State Chamber of Commerce

John French
City of Seward

Marilynn Heddell
City of Whittier

Iver Malutin
Kodiak Village Mayors Association

Thane Miller
Prince William Sound Aquaculture Corp.

Stan Stephens
City of Valdez

Charles Totemoff
Community of Chenega Bay

John Velsko
City of Homer

Ex-Officio Board Members

(Non-Voting)

Wanice Cowles
Division of Homeland Security and Emergency Management

Ron Doyel
Alaska Department of Environmental Conservation

Joe Hughes
U.S. Coast Guard/Marine Safety Office Valdez

Carl Lautenberger
U.S. Environmental Protection Agency

Gayle Martin
Alaska Department of Fish and Game, Division of Sport Fish

Doug Mutter
U.S. Department of the Interior

W. Scott Pegau
Oil Spill Recovery Institute

Scott Pexton
Alaska Department of Natural Resources

Sharon Randall
U.S. Forest Service

Commander Darryl Verfaillie
U.S. Coast Guard, Valdez

John Whitney
National Oceanic and Atmospheric Administration

Committees

As of June 30, 2009

Five standing committees advise the Board of Directors and the 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.

OSPR

Oil Spill Prevention and Response Committee:

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

Jerry Brookman
Kenai

Bob Flint
Anchorage

John French
Chair
Council Director
City of Seward

Joe Jabas
Valdez

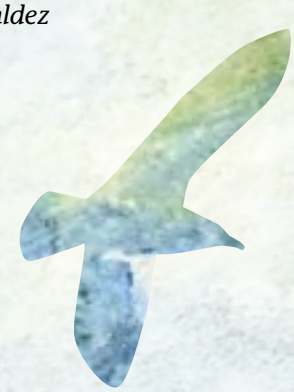
David Goldstein
Whittier

John LeClair
Anchorage

Walter Parker
Council Director
Oil Spill Region Environmental Coalition

Gordon Scott
Girdwood

John Velsko
Council Director
City of Homer



IEC

Information and Education Committee:

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

Kate Alexander
Cordova

Patience Andersen Faulkner
Chair
Council Director
Cordova District Fishermen United

Peter Armato
Seward

Nancy Bird
Director
Cordova

Jane Eisemann
Council Director
City of Kodiak

Cathy Hart
Council Director
Alaska Wilderness Recreation and Tourism Association

Savannah Lewis
Seldovia

Dorothy M. Moore
Council Director
City of Valdez

Stan Stephens
Council Director
City of Valdez

Dave Goldstein, left, is not only one of the council's committee volunteers, but also runs a charter boat service out of Whittier. The happy customer on right landed a halibut weighing over 175 pounds. Photo courtesy of Dave Goldstein.

TOEM

Terminal Operations and Environmental Monitoring Committee:

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

Bob Benda
Chair
Valdez

Jo Ann Benda
Valdez

Nancy Bird
Council Director
City of Cordova

Steve Bushong
Valdez

George Skladal
Anchorage

Janice Wiegers
Fairbanks

SAC

Scientific Advisory Committee:

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

Jennifer Burns
Anchorage

John French, Ph.D.
Council Director
City of Seward

Roger Green, Ph.D.
Hope

Agota Horel
Fairbanks

John Kennish, Ph.D.
Chair
Anchorage

Debasmita Misra
Fairbanks

Dorothy M. Moore
Council Director
City of Valdez

Mark Udevitz
Anchorage

Committee volunteer Roger Green with his daughter, Charlotte. Photo by Lisa Ka'aihue.

POVTS

Port Operations and Vessel Traffic Systems Committee:

Mission: Monitor port and tanker operations in Prince William Sound

Duane Beland
North Pole

Cliff Chambers
Seward

Bill Conley
Valdez

Pat Duffy
Council Director
Alaska State Chamber of Commerce

Jane Eisemann
Council Director
City of Kodiak

Pete Heddell
Anchorage

Robert Jaynes
Chair
Valdez

Papers, Presentations, Reports, and Media Releases

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Learning From The Pain Of The Exxon Valdez Oil Spill. Guest editorial opinion by Donna Schantz, acting executive director, 3/21/2009.

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These are just a few of the many reports, papers, presentations, and media releases produced by the council in the past year. For further information, or to obtain copies, visit the council website or contact our Anchorage office (see facing page).

Staff & Offices

The ConocoPhillips tanker Polar Endeavour participates in a towing exercise with the escort tug Nanuq. Photo by Dan Gilson.

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Amanda Johnson, Project Manager
Stan Jones, Director of External Affairs
Lisa Ka'aihue, Director of Administration
Telena McQuery, Project Manager Assistant
Linda Robinson, Outreach Coordinator
Linda Swiss, Project Manager
Serena Lopez, Administrative Assistant

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