

PRINCE
WILLIAM
SOUND

REGIONAL
CITIZENS'
ADVISORY
COUNCIL

2002-2003
YEAR IN
REVIEW

CONTENTS

**Letter from the President
and Executive Director** 1

Mission and Responsibilities 2

2002-2003 Activities

— Oil Spill Prevention 4

— Environmental
Protection and Science 7

— Oil Spill Preparedness
and Response 12

— Community Response
Planning, Member
Relations and
External Relations 15

Board of Directors 18

Committees 20

**Presentations, Reports
and News Releases** 22

Staff and Offices **Inside
back
cover**

Note: This report covers the period from July 1, 2002 through June 30, 2003.

Cover Illustration—DEBRA DUBAC

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



The past year was one of great accomplishments for the citizens' council, but also one that saw the unfolding of a new corporate and political climate that will require more vigilance by citizens than ever before.



In Valdez, Alyeska Pipeline Service Co. has undergone another corporate reorganization, resulting in several hundred fewer workers and major changes in procedures. In Juneau, our new governor and state legislature are working to increase natural-resource development by streamlining the permitting process. Ensuring these changes don't lead to a relaxation of environmental protections will require the council to spend more time, money, and effort on its mission of promoting the safe transportation of Alaska North Slope crude oil.



Our accomplishments over the past year included startup of the iceberg radar system in Prince William Sound, continued funding of the Long Term Environmental Monitoring Program, cooperative work with regulators and industry on contingency plan reviews, and unconditional recertification by the United States Coast Guard. We have also continued our work on non-indigenous species that come into Prince William Sound in ballast water, a problem that will only increase as the new double hull tankers come on line.



On the political front, we found it necessary to expend more time and effort on monitoring legislative and administrative streamlining efforts that could affect the safety of oil transportation. We took a major role in providing information and advice to citizens, legislators and the executive branch on bills dealing with the Alaska

Coastal Management Plan, contingency plans, and right-of-way permits for the Trans-Alaska Pipeline System. We anticipate even more effort will be needed in future years as the state continues to push ahead with its streamlining initiatives.




On the corporate front, we continue to monitor the effects of Alyeska's move, launched two years ago, to reduce staff and to cut costs in other ways. Our concern that complacency may set in again, as it did before the 1989 *Exxon Valdez* spill, has led us to increase our oversight at Alyeska's Valdez tanker terminal, including close attention to the ballast water treatment system, the fire protection system, air pollution, and the increase in oily wastes being discharged into Prince William Sound. As part of our efforts in this regard, we have conducted research and provided information to the Environmental Protection Agency and the Alaska Department of Environmental Conservation on the need for air- and water-quality regulations at the terminal.



Internally, we have improved operations in several ways. We conducted a major expansion of our web site, www.pwsrac.org, and we have created an electronic management system to keep track of the huge trove of documents accumulated since we formed 14 years ago. We are placing more emphasis on getting our highly qualified professional staff into the field for direct observation of operations by Alyeska and the oil shipping companies.



As we reach the end of this year we feel we have accomplished a great deal, but recognize there is even more to do in the coming years. As we get further from the *Exxon Valdez* spill and the industry continues its drive to cut costs, ever more vigilance will be required to prevent a return to complacency. 

STEPHEN LEWIS
President



LETTER FROM THE PRESIDENT AND THE EXECUTIVE DIRECTOR



JOHN DEVENS
Executive Director

MISSION AND

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 PIPELINE
SERVICE CO. TERMINAL IN VALDEZ AND THE
OIL TANKERS THAT USE IT.



The OceanBuster boom system is part of Alyeska's arsenal of equipment for responding to oil spills.

Photo by Tony Parkin, cabinet council

The council's 18 member organizations are communities in the region affected by the 1989 *Exxon Valdez* oil spill, as well as aquaculture, commercial fishing, environmental, Native, 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. The council's basic operating funds come from this contract.

The second guiding document, enacted after the council was created, is the federal Oil Pollution Act of 1990, 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,

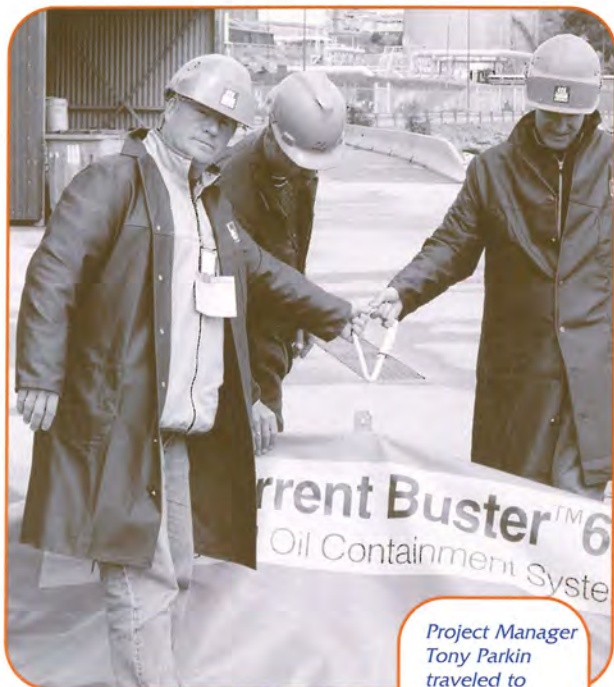
and to build trust and provide citizen oversight of environmental compliance by oil terminals and tankers.

The Act allows an alternative, pre-existing organization to fulfill the requirement for a citizen group and our council has done so for Prince William Sound since 1991. Each year, the U.S. Coast Guard assesses whether 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.

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.

CITIZENS PROMOTING ENVIRONMENTALLY SAFE OPERATION

RESPONSIBILITIES



Project Manager Tony Parkin traveled to Norway to observe on-water oil spill tests for the council. Here, he examines response equipment at a Norwegian oil terminal.

Many people involved in the establishment of the council also actively promoted citizen involvement provisions 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:

- *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 environmental protection capabilities of Alyeska and the tanker operators.*
- *Monitor, review and comment on actual and potential environmental, social and economic impacts of terminal and tanker operations.*
- *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 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 was initially funded at \$2 million a year. The funding is renegotiated every three years; current Alyeska funding is approximately \$2.7 million a year. The council's total budget is about \$3.4 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 . . ."

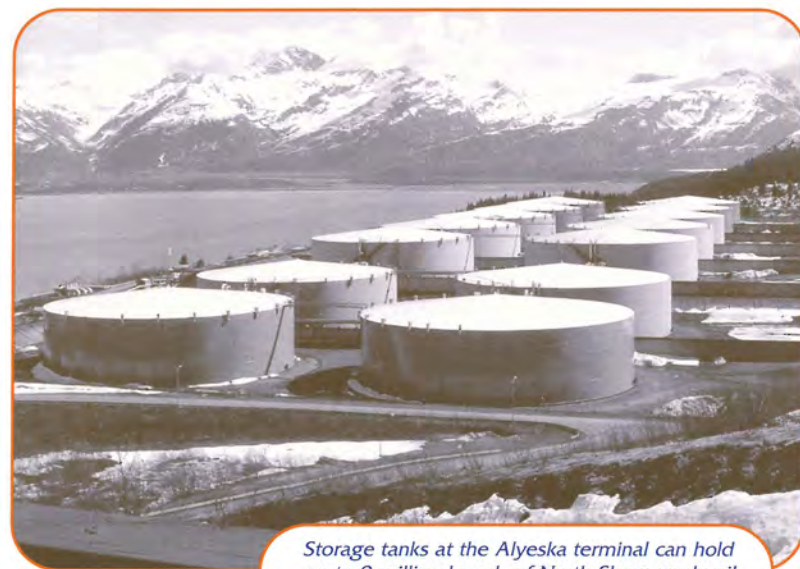


Photo by Linda Robinson, citizens' council

Storage tanks at the Alyeska terminal can hold up to 9 million barrels of North Slope crude oil until it is loaded onto southbound tankers.

OF THE ALYESKA TERMINAL AND ASSOCIATED TANKERS

OIL SPILL PREVENTION

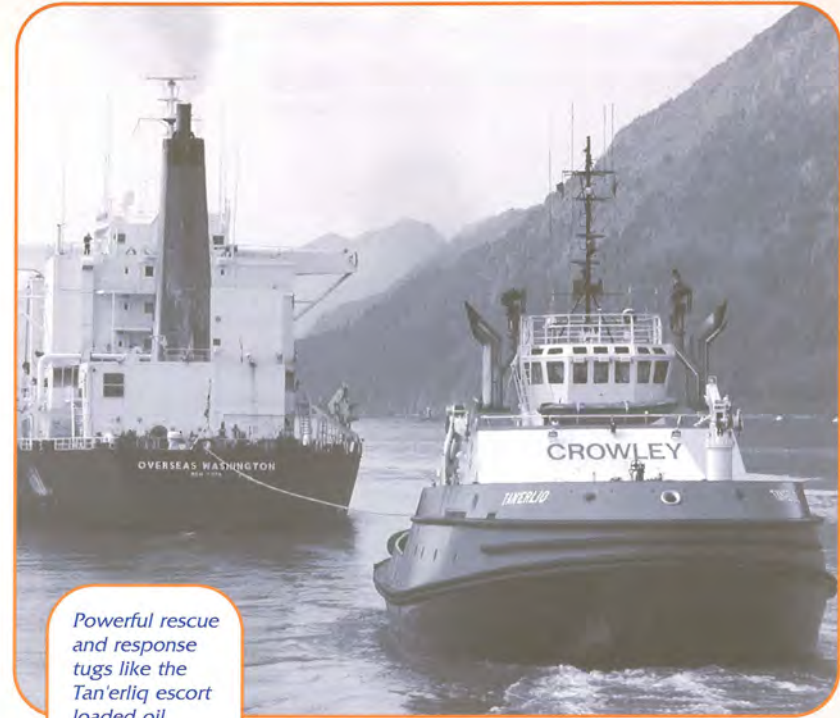
TO ENSURE A MAXIMUM LEVEL OF SAFETY, THE COUNCIL

REVIEWS ALL ASPECTS OF THE OIL TRANSPORTATION SYSTEM IN PRINCE WILLIAM SOUND. THESE INCLUDE OPERATIONS OF OIL TANKERS AND THE VALDEZ MARINE TERMINAL, SPILLS AND OTHER INCIDENTS, AND THE ADEQUACY AND MAINTENANCE OF THE VESSEL TRAFFIC SYSTEM.

TANKER SAFETY

Escort System

The heart of the oil-spill prevention system is the fleet of rescue and response tugs that accompany loaded tankers out of the Sound. Thanks to years of study and analysis, and considerable investment by the shipping industry, this system is widely considered the best in the world. The fleet, operated by Alyeska's Ship Escort/Response Vessel System, includes five state-of-the art 10,000 horsepower tugs that have proved their capabilities in actual incidents, as well as in sea trials observed and reviewed by the council.



Powerful rescue and response tugs like the Tan'erliq escort loaded oil tankers out of Prince William Sound.

Photo by Stan Jones, citizens' council

Iceberg Detection and Avoidance

Icebergs have proved to be one of the greatest hazards to tanker navigation in Prince William Sound. In 1989, the *Exxon Valdez* left the tanker traffic lanes in order to avoid icebergs. The rest is history. In 1994, a tanker coming into Port Valdez collided with an iceberg, causing significant damage to the hull. Fortunately, that tanker was empty and no spill resulted.

Council-sponsored research has determined that ice from Columbia Glacier will continue to flow into the tanker lanes, and most likely increase, over the next decade or two. After investigating several ice detection and reporting technologies, the council, along with several partners, launched a major project to use radar to reduce the navigational risk posed by ice.

2002-2003 ACTIVITIES

A VHF (Very High Frequency) radar system has been installed on Reef Island, near Bligh Reef, scene of the *Exxon Valdez* disaster. This system began operation in December 2002. It is linked to Alyeska's SERVS facility and the Coast Guard's Vessel Traffic System, both in Valdez, to provide mariners with real-time information about ice conditions. Oil shippers, pilots, escorts, and the Coast Guard will be able to make knowledgeable decisions about shipping schedules and other ice avoidance measures.

Although this system is still in the early stages of implementation, it has already been used by the Coast Guard to make no-sail decisions for tankers when darkness or weather prevent direct observation of icebergs in the tanker lanes.

The system is funded to operate for five years, with operation and maintenance by the Coast Guard.

The installation is also a platform for research and development of new technologies to enhance ice detection capabilities. One primary avenue of research is whether UHF (Ultra High Frequency) radar can offer better performance than a VHF system. UHF radar has a shorter range, but in certain weather gives a clearer signal than VHF. The new research is aimed at expanding the range of UHF radar without loss of signal quality.

Field tests were performed in Prince William Sound in April of 2003, with the data suggesting that improved antenna design can in fact extend the range of a UHF radar system. With the data gathered from this test, our contractor, C-CORE, was able to obtain additional money from the Canadian Coast Guard to continue research and development of this system.

The ice detection project is an example of the kind of partnership among industry, government, and local citizens that characterizes many council undertakings. Major financial and in-kind contributors include Alyeska Pipeline Service Co., Alaska Tanker Co., the Coast Guard, NOAA, the Oil Spill Recovery Institute in Cordova, the Alaska Department of Environmental Conservation, and the Prince William Sound Community College.

In July 2003, the council received the Legacy Award of the British Columbia/ Pacific States Oil Spill Task Force for the ice radar project. The council was nominated by the U.S. Coast Guard and the Alaska Tanker Company. Capt. John Lawrence, writing for Alaska Tanker, praised the council's "extraordinary efforts."

"The project was exemplary in leadership, innovation, and commitment," Lawrence wrote in his nomination letter.

The ice-detection radar system filters out sea clutter to give a clear picture of icebergs in the tanker lanes. The arrow indicates an outbound tanker and an escort tug surrounded by white dots representing icebergs.



Parts for the ice-detection radar tower were transported to Reef Island on an Army Chinook helicopter.



Photo by Rhonda Ansdor, citizens council

VALDEZ MARINE TERMINAL

While the 1989 Exxon Valdez spill focused worldwide attention on the dangers of spills from tankers under way, there is also significant risk of spills and other accidents during crude oil loading operations at Alyeska's tanker terminal in Valdez. The terminal is at the end of the trans-Alaska pipeline, which brings oil south from Prudhoe Bay and other North Slope fields.

Fire Protection

For several years, the council has worked closely with Alyeska on fire-safety issues at the Valdez terminal, as a fire or explosion there could result in both an environmental catastrophe and a human tragedy.

During the past year, council staff, consultants and volunteers were involved with Alyeska's plans to re-engineer the fire-retardant foaming system at a building where incoming crude oil is metered. The design went through several versions, with Alyeska planning to complete the project during the fall of 2003.

Earthquake Safety

The terminal was built to withstand a Richter Scale 8.4 earthquake, using the standards and technologies current at the time of its design in the 1970s. The Richter Scale 8.4 requirement was used because that was then thought to be the magnitude of the Good Friday earthquake that devastated Valdez in March 1964.


Today, considerably more is known about protecting facilities

such as the terminal from earthquakes, and the 1964 earthquake is believed to have been more severe than originally thought. As a result, the council is concerned that the terminal design may not, after all, be able to withstand an earthquake of the size that occurred in 1964. Specific concerns are the stability of containment dikes around the storage tanks, stability of slopes, stability of earth and rock support under the storage tanks, and the structural integrity of oil handling equipment, especially components that may have been weakened by corrosion in the nearly 30 years since the terminal was built. Accordingly, the council has just begun a project and is working with Alyeska to analyze the adequacy of seismic engineering at the terminal and identify any needed re-engineering.

Corrosion Abatement

At the time of its original design, the useful life of the Valdez tanker terminal was thought to be 30 years and many of the subsystems and components were designed accordingly. The lifetimes of most terminal components are limited by corrosion and by wear-out due to mechanical action.

Detecting corrosion is difficult because it may occur in pipes and other components — some of them buried — that must be disassembled for inspection.

Because of the potential for leaks and spills at the terminal, the council this year began a project and is working with Alyeska to identify corrosion issues, to monitor Alyeska's progress in addressing them, and to verify that the right corrosion standards are applied in addressing the problem. 

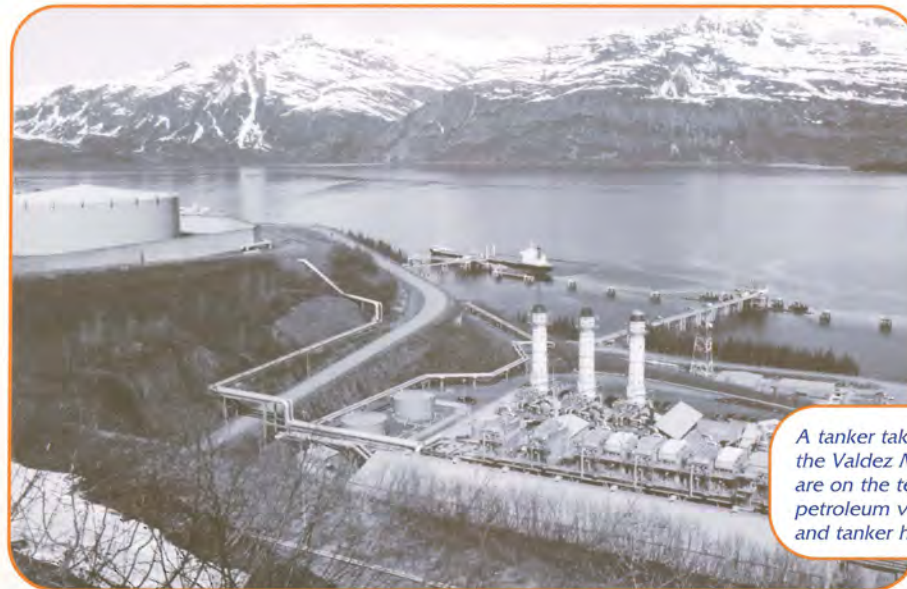


Photo by Stan Jones, citizens' council

A tanker takes on North Slope crude at Berth 5 at the Valdez Marine Terminal. The three chimneys are on the terminal's incinerator, which burns petroleum vapors pushed out of storage tanks and tanker holds by arriving crude oil.

ENVIRONMENTAL PROTECTION AND SCIENCE

THE OIL POLLUTION ACT OF 1990 SAYS THE COUNCIL SHOULD REVIEW, MONITOR AND COMMENT ON ALYESKA'S ENVIRONMENTAL PROTECTION CAPABILITIES, AS WELL AS THE ACTUAL AND POTENTIAL ENVIRONMENTAL IMPACTS OF TERMINAL AND TANKER OPERATIONS.



As part of the council's Long-Term Environmental Monitoring Program, mussels are collected from the bottom of Prince William Sound and tested for the presence of hydrocarbons.

Photo courtesy of Kinetic Laboratories, Inc.

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 ENGAGES IN SCIENTIFIC STUDIES TO DETERMINE ACTUAL OR POTENTIAL RISKS, TO DOCUMENT LEVELS OF POLLUTION AND BIOLOGICAL EFFECTS, AND TO BETTER UNDERSTAND NEW TECHNOLOGIES AND WHAT ENVIRONMENTAL COSTS OR BENEFITS MIGHT BE ASSOCIATED WITH THEIR USE.

TERMINAL OPERATIONS

Besides posing the risk of a major oil spill caused by accident or earthquake, the Valdez tanker terminal results in some ongoing air and water pollution from routine operations, as allowed by its permits from various regulatory agencies. The council oversees terminal operations in an effort to make sure pollution is within permitted limits, and that the limits are set at appropriate levels.

Ballast Water Treatment

Tankers arrive in Port Valdez with significant quantities of oily ballast water carried in cargo tanks to provide stability during the trip north. The water is cleaned at the terminal's Ballast Water Treatment Facility, where concentrations of certain specified pollutants are reduced to a few parts per million before the ballast water is discharged into Port Valdez. These discharges occur under a National Pollutant Discharge Elimination System (NPDES) permit issued by EPA and a Mixing Zone permit issued by the Alaska Department of Environmental Conservation. Alyeska applied to renew its NPDES and Mixing Zone Permits in November 2001. The citizens' council has recommended the new permits include stricter provisions on discharge limits, monitoring requirements, Alyeska's Pollution Prevention Program, and review of monitoring and sampling data. Renewal was expected during the second half of 2003.

While concentrations of specific, named pollutants are within permissible limits in the treated ballast water discharged into the Sound, the council is concerned that the discharges may also contain pollutants for which there are no monitoring requirements. These include alkylated homologues and certain non-organic chemicals used to inhibit corrosion. The council has just started a project to measure concentrations of such un-monitored pollutants and assess any dangers they pose, with an eye to developing limits on their discharge as appropriate.

Air Quality

The terminal is a major source of volatile organic compounds and other air pollutants, primarily from the Ballast Water Treatment Facility. Some of these emissions are known carcinogens and may be affecting health or the quality of life in Valdez. The council is working to measure and ultimately reduce concentrations of hazardous air pollutants in Valdez and at the terminal.

The council's efforts in this area over the past year included detailed recommendations to EPA that terminal emissions be covered by proposed new regulations expected to become final in the second half of 2003.

In addition, the council is preparing to analyze the effectiveness of one of the sub-systems of the Ballast Water Treatment Facility. In the third and final step of treatment, bacterial action is supposed to convert benzene, ethyl benzene, toluene, and xylene in the ballast water to harmless compounds. This process takes place in the Biological Treatment Tanks – large, aerated, open, concrete-lined ponds.



Photo by John De Vries, citizens' council.

Project Manager Tom Kuckertz briefs the Valdez City Council on air-quality issues raised by emissions from the Alyeska tanker terminal.

The aeration and mixing processes that go on simultaneously with bacterial action do not convert the hydrocarbons to harmless compounds, however. Instead, they remove these pollutants from

the ballast water and discharge them into the air.

The amount of pollutants escaping into the air rather than being consumed by bacteria is unknown. Accordingly, the council this year started a project to analyze this issue and to recommend mitigation measures as needed.

Right-of-Way Renewal

The Trans-Alaska Pipeline System — including the tanker terminal at Valdez — operates under right-of-way agreements between the owner companies and the state and federal governments. The original 30-year permits were granted in 1974, leading to a renewal process that began in 2001 and culminated in the issuance of new state and federal permits late in 2002.

The council participated by reviewing environmental impact statements and other documents prepared during the renewal, and by making recommendations to improve environmental safety at the Valdez terminal. Our recommendations led to numerous changes in the final environmental impact statement issued to support the renewal. Two of the more important changes were the addition of a full-page discussion of fire safety at the terminal, and a full-page discussion of operational problems with the Ballast Water Treatment Facility.

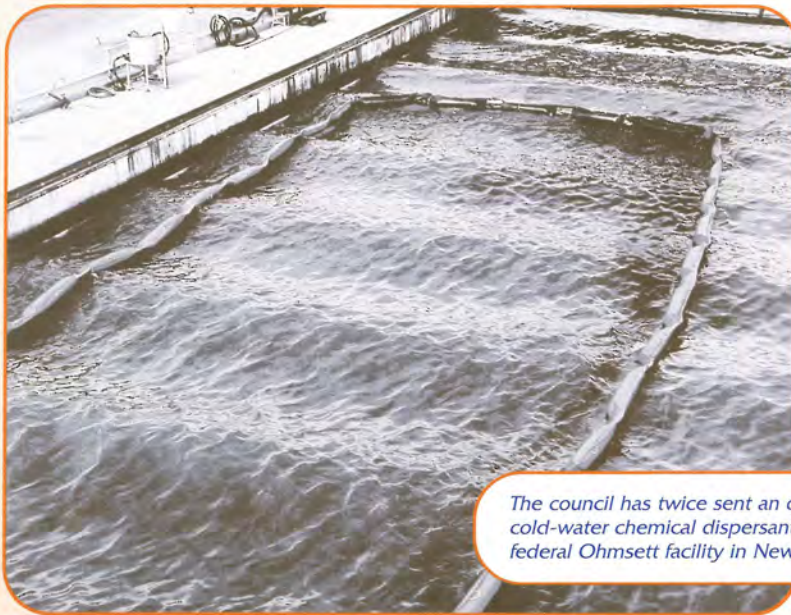
ENVIRONMENTAL RESEARCH

Chemical Dispersants

Chemical dispersants are substances that, when applied to spilled oil, do as their name suggests: they disperse it into the water column, rather than leaving it floating on top in a slick. The council, because of concerns about the efficacy and toxicity of dispersants, urges regulatory agencies to take a conservative approach towards their use and supports mechanical recovery as the primary oil spill response strategy.

The council promotes research and testing to increase knowledge about chemical dispersants and the environmental consequences of their use on oil spills in Alaska waters.

This year, the council was successful at encouraging regulators and responders to revisit the use of dispersants in Prince William Sound. The council suggested that the Alaska Regional Response Team (ARRT) review the guidelines on



Stan Jones, citizens' council

The council has twice sent an observer to cold-water chemical dispersant tests at the federal Ohmsett facility in New Jersey.



Stan Jones, citizens' council

One of many problems at Ohmsett was that some of the test oil escaped containment (above), making it impossible to determine how much was actually dispersed. This is one of many reasons the council regards the tests as insufficiently rigorous to answer the question of whether dispersants work in cold water.

dispersant application, as they are 14 years old and do not take into account the vast amount of research done since they were adopted. The ARRT is an advisory board to the Federal and State On-Scene Coordinators, who direct oil-spill responses. It provides federal, state, and local governmental agencies with means to participate in response to pollution incidents. The response team accepted the council's recommendations and reconvened its Science and

Technology Work Group to develop dispersant research questions and review the current guidelines.

The council commissioned several dispersants studies and reports this year. In addition, the results of two earlier council-sponsored research projects — on dispersant effectiveness and on phototoxicity of North Slope crude — were published in professional journals.

A council staff member filed an observer report on cold water dispersants tests held at the federal Ohmsett wave tank facility in New Jersey. As the council has not been satisfied with the recent round of Ohmsett dispersants testing, Dr. Merv Fingas of Environment Canada was tasked with developing a white paper on testing the effectiveness of oil spill dispersants in

large tanks. The council has recommended that the ARRT take on wave tank testing, possibly in Alaska.

Dr. Fingas also prepared a paper that identifies important issues that must be considered when designing field tests of dispersants. The council commissioned a toxicity paper by



Courtesy of Ohmsett

Dr. Mace Barron (a council contractor) and Project Manager Dan Gilson collect ultraviolet data in Prince William Sound.



Photo by Tony Perkin, citizens' council

Dr. Mace Barron. In this paper, standard dispersant toxicity testing methods are critiqued and specific recommendations are made relevant to the environmental conditions and species found in Prince William Sound.

Alaska North Slope crude oil (ANS) and chemically dispersed ANS are known to be phototoxic. That is, toxicity increases in the presence of ultraviolet radiation, which is found in sunlight but is not visible to humans. The council determined that, to fully understand photoenhanced toxicity, ultraviolet measurements needed to be taken in Prince William Sound. A two-year project was initiated this past year to take such measurements.

Dr. Mace Barron, in conjunction with NOAA's Auke Bay Laboratory, started a preliminary investigation into whether Alaska North Slope crude oil is phototoxic to newly emerged pink salmon. If the results indicate it is, the council may expand these tests to include chemically dispersed North Slope oil.

The council sponsored a dispersants workshop in January 2003. Dr. Fingas was invited to give an overview of chemical dispersants. The workshop was attended by regulators, responders, citizens and oil-industry representatives.

Aquatic Nuisance Species

Not all ballast water discharged in Port Valdez requires treatment to remove oil. Some tankers employ segregated ballast tanks where "clean" sea water is used for stability and then discharged untreated into Prince William Sound. The potential thus created for invasion by non-indigenous marine species has been a priority issue for the council since 1996. We lead a multi-stakeholder working group to coordinate programs in our region and we hold seats on the Western Regional Panel of the Aquatic Nuisance Species Task Force and on the national Invasive Species Advisory Committee. In partnership with the U.S. Fish and Wildlife Service, NOAA's Sea Grant program, Alyeska Pipeline Service Co., and the University of Alaska Fairbanks, the council has co-sponsored a series of scientific studies conducted by the Smithsonian Environmental Research Center since 1997.

This year, the Council created a clearinghouse of information on non-indigenous marine species that pose threats to Prince William Sound and the northern Gulf of Alaska. The clearinghouse is a database of key reference materials and can be queried based upon the specific interests of the users. The database complements the implementation of the State of Alaska's Aquatic Nuisance Species Management Plan, which was adopted this past year as well.

In a council-sponsored research project, herring eggs and larvae were used to evaluate whether sunlight increases the toxicity of oil spilled in sea water.



Photo courtesy of Dr. Mace Barron

Regional Environmental Monitoring

The council established a Long-Term Environmental Monitoring Program (LTEMP) in 1993 that continues with an annual study plan designed to address trends and new circumstances. Samples are collected at 10 intertidal sites throughout Prince William Sound and the Gulf of Alaska. Mussel tissues from all the sites and sediments from Port Valdez are analyzed in the laboratory to determine whether hydrocarbons are accumulating and, if so, their source. The LTEMP contractor presents an annual report to the council and the data from it is made available to other research entities. The council gained a significant partner this year in LTEMP: the Exxon Valdez Oil Spill Trustee Council. The Trustee Council conducts a program titled Gulf Ecosystem Monitoring. Its mission is to sustain the ecosystem of the northern Gulf of Alaska through greater understanding of the effects of natural changes and human activities. The Trustee Council provided half the funding for LTEMP this year as it is a logical fit into the Gulf Environmental Monitoring program.


Weather and Currents in Prince William Sound

Because weather and other natural factors can play such a major role during efforts to prevent or clean up oil spills, the council studies wind, water currents and other environmental conditions near the Valdez Marine Terminal, in Prince William Sound, and in the Gulf of Alaska.

In the fall of 2002, installation was completed on a network of weather stations co-funded by the council and the

Prince William Sound Oil Spill Recovery Institute. The data produced by these stations is available on the Internet at: www.pws-watershed.org/stations.html.

In January 2003, the council co-sponsored (with the Exxon Valdez Oil Spill Trustee Council) a workshop on ocean current modeling in the Sound. To continue efforts in this area, the council will conduct a formal analysis of various data-sharing protocols and develop recommendations on how to develop a comprehensive data system.

Additionally, the council is joining with the University of Alaska in a project to gather surface current information in the Sound. Besides providing some funding, the council will assist in project logistics. 



Oil tankers take on crude at Alyeska's Valdez terminal the year around -- day or night, summer or winter.

Photo by Tom Kuckertz, citizens' council.

OIL SPILL PREPAREDNESS & RESPONSE

THE COUNCIL HAS DEVOTED SIGNIFICANT RESOURCES

TO PREVENTING OIL SPILLS, BUT THAT RISK CANNOT BE ELIMINATED ENTIRELY.

WE MUST BE PREPARED TO RESPOND QUICKLY AND EFFECTIVELY WHEN PREVENTION

MEASURES FAIL. TWO COUNCIL PROGRAMS ADDRESS

EMERGENCY PREPAREDNESS AND RESPONSE:

OIL SPILL RESPONSE PLANNING, AND OIL SPILL RESPONSE OPERATIONS.

OIL SPILL RESPONSE PLANNING

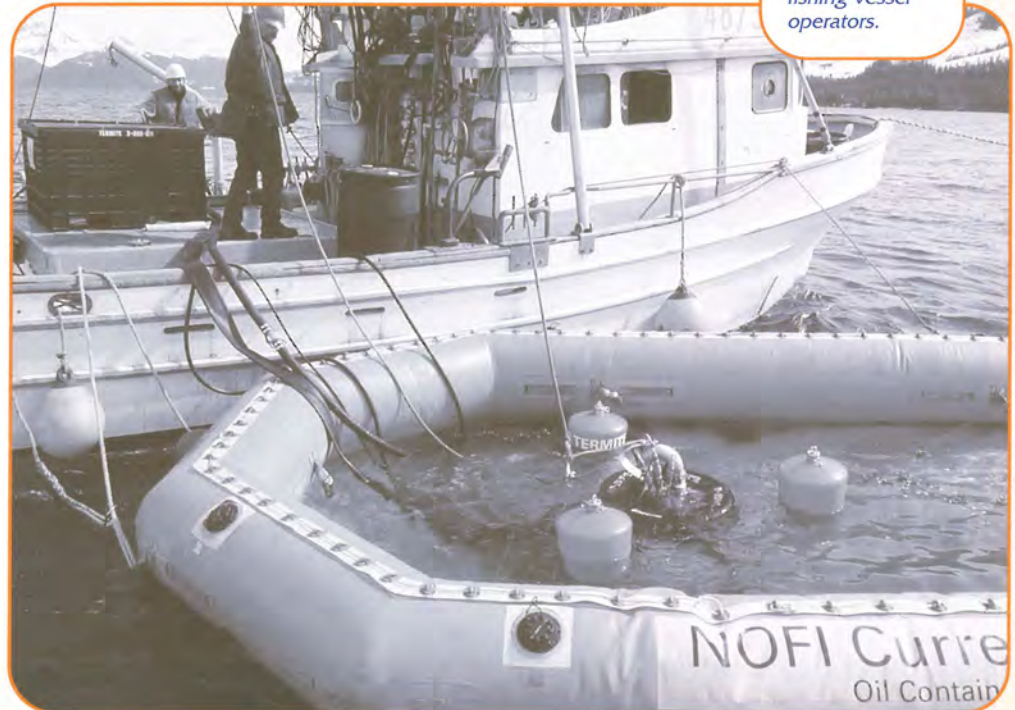
State and federal laws require the operators of oil tankers, the Valdez Marine Terminal, and the trans-Alaska pipeline to

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 plans.

In some cases, the council participates with government and industry on working groups that develop these plans, known as contingency plans. In other cases, the council conducts independent reviews and submits comments and recommendations.

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

An oil skimmer is deployed inside the CurrentBuster booming system during training exercises for fishing vessel operators.



AP Photo by Tom Kupferer, citizen council

During the past year, the council reviewed applications for new oil tanker contingency plans and for a new contingency plan for the Valdez terminal.

Tanker contingency plans

Public review of these plans took place late in 2002. The council identified nine major issues, ranging from planning for oil impacts outside Prince William Sound (as occurred after the *Exxon Valdez* spill) to securing commitments from the tanker companies to develop Geographic Response Strategies (see next page).



Photo by Brian Jones, citizens' council.

Part of being ready for an oil spill is making sure response equipment is ready. Here, workers examine boom sections at a depot in Whittier.

Significant progress was made on each of the council's nine issues. In addition, the Alaska Department of Environmental Conservation set up a work group involving the state, the tanker companies and the citizens' council. It will continue to review, analyze and improve the contingency plans.

Valdez Marine Terminal contingency plan

Public review of this plan began in August 2002 and was completed in April 2003. The council commented extensively throughout the process, and numerous improvements were included in the final version of the plan. These ranged from better provisions for controlling the source of a spill at the terminal, to an improved plan for handling the tons of oily waste created during any large oil-spill response.

As with the tanker contingency plans, the Department of Environmental Conservation set up a work group that will continue to examine and improve the Valdez terminal plan.

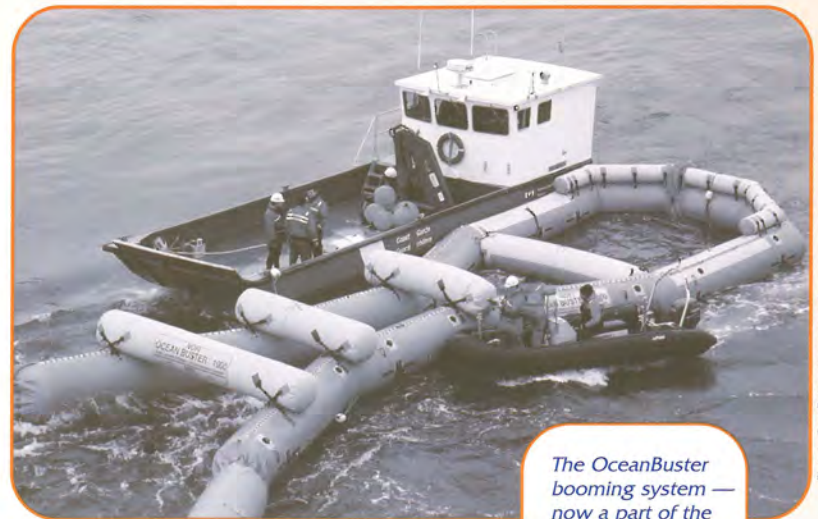


Photo by Tony Pajkin, citizens' council.

The OceanBuster booming system — now a part of the Alyeska oil-spill response arsenal — undergoes sea trials in British Columbia.



Photo by Tony Pajkin, citizens' council.

Geographic Response Strategies

These are oil-spill response mini-plans specific to sensitive areas and resources, such as salmon streams and clamming beaches. The council has long worked to have them included in oil-spill contingency plans for Prince William Sound and the Gulf of Alaska.

In the fall of 2002, work groups formed by the council completed development of detailed Geographic Response Strategies for 29 sites in Prince William Sound, and for 29 sites along the outer Kenai Coast of the Gulf of Alaska. After public review, the strategies are expected to be included in the official oil-spill contingency plans for these areas.

Scientific Response Plan

If there is another major oil spill, it will be crucial to instantly begin monitoring the environmental changes that follow. The council is conducting a multi-year project to develop a scientific contingency plan to guide this work and other scientific research activities related to a major oil spill response.

OIL SPILL RESPONSE OPERATIONS

It takes more than volumes of carefully created and reviewed contingency plans to effectively respond to an oil spill. It takes equipment, trained people, and a management system to implement the plan; and it takes practice, practice, practice. The council's oil spill response operations program is tasked with monitoring the operational readiness of the Alyeska Ship Escort/Response Vessel System and the tanker companies, and with making sure the council is prepared to respond to an oil spill.

Council staff members, volunteers, and contractors monitor and report on spill response drills, exercises, and training throughout the region to provide citizens, regulatory agencies, and responders with information about the state of readiness and to make recommendations for improvement. Much of the monitoring work is done by an independent contractor, who presents annual reports summarizing each year's activities, lessons learned, recommendations, and outstanding issues. The council's staff and volun-

teers also participate in several major drills scheduled throughout the year.

This past year the council monitored drills and exercises at the Valdez tanker terminal and throughout Prince William Sound. Work is under way to develop



Photo by Tony Parkin, citizens' council


Unlike the U.S., Norway allows exercises involving actual, controlled oil spills into the sea. Here, a booming and skimming system is tested during North Sea exercises observed by the citizens' council.

new and concise evaluation criteria to be met during the drills and exercises. A large-scale

surprise drill was called in Valdez in June 2003 to test the preparedness of Alyeska's Ship Escort/Response Vessel System and the effectiveness of the evaluation criteria.

Council representatives also travel outside Alaska to observe tests of oil-spill response technology, as well as responses to actual spills.

In the past year, council staffers observed tests of the new OceanBuster booming and skimming system in Valdez and in Victoria, BC, and traveled to Norway for on-water tests of oil-recovery equipment involving intentional small oil spills.

In addition, a council staffer traveled to Spain with an Alyeska team after the spill from the tanker Prestige. The purpose was to observe response efforts firsthand and to train local Spanish fishermen in the use of the OceanBuster system. 

COMMUNITY RESPONSE PLANNING

The council promotes planning for local communities so the social and economic damage of oil spills can be mitigated. A training series has been developed based on *Coping with Technological Disasters: A User Friendly Guidebook*, which was developed earlier by the council. Called the *Peer Listener Training Program*, it is designed to teach local residents to provide help in disaster-affected communities. The lay person learns to be a peer support counselor, advisor, friend, and referral agent for community members who may not want professional services, or may not know that help is available.

This year the training was given at the Homer Community Mental Health Center, to staff of the Women's Resource and Crisis Center in Kenai, and to U.S. Coast Guard staff in Valdez. It was also presented at the 2003 International Oil Spill Conference in Vancouver, BC.



Coast Guard members in Valdez (above) and citizens in Kenai (below) took the council's Peer Listener Training.



MEMBER RELATIONS

The council devotes a full-time staff position, called Community Liaison, to maintaining productive relations with the 18 communities and interest groups that make up its membership. The Liaison 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.

During the past year, the Liaison and other staffers represented the council at numerous trade shows and conferences, as well as events sponsored by member entities. Some examples of outreach efforts: In November 2002, some 300 people visit-

ed our booth at Seattle's FishExpo, a trade show for the commercial fishing industry that is attended by many Alaska fishermen. The booth was also set up at the annual conferences of



The council set up its exhibit booth at the annual conference of the Alaska Wilderness Recreation and Tourism Association in Girdwood, near Anchorage. Shown here, council board member Marilyn Heddell and Sara Leonard of the Alaska Department of Fish and Game.

COMMUNITY RESPONSE PLANNING, MEMBER RELATIONS AND EXTERNAL RELATIONS

Photos by Linda Robinson, citizens' council.

the Alaska State Chamber of Commerce, the Alaska Forum on the Environment, the Alaska Wilderness Recreation and Tourism Association, and the Alaska Natural Resource and Outdoor Education program; at a major commercial fishing trade show in Kodiak, at Earth Day at an Anchorage school, at the International Oil Spill Conference in Vancouver BC, and at the Arctic and Marine Oilspill Program conference in Victoria BC. Receptions were held in four communities, and the council co-sponsored two Legislative receptions in Juneau.

EXTERNAL RELATIONS

Outreach

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.

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



Photo by Linda Robinson, citizens' council

One of several events the council usually attends is the annual Arctic and Marine Oilspill Program conference in Canada. Here, council project managers Tony Parkin, left, and Lisa Ka'aihue, center, discuss oil-spill issues with A.J. Paul, right, a volunteer on one of the council's technical advisory committees.



Photo by Marilyn Leland, citizens' council

Council Project Manager Rhonda Arvidson explains the ice-detection radar project to an attendee at the International Oil Spill Conference in British Columbia.

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.

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

In addition, the council uses news releases, guest newspaper editorials, electronic mail and its Internet site to provide information about its activities and about oil transportation issues to Alaska citizens and to the world.

During 2003, the council completely redesigned and upgraded its web site, www.pwsrca.org. The new site features improved navigation, better organization, and additional content in the interest of increasing public awareness of the council and its work. In particular, the web site provides access to much of the valuable research commissioned by the council over the years.

Plans are under way to provide a link from our web site to our database of information about invasive species of concern in Prince William Sound. This feature is expected to go online early in 2004.

The council makes available a 14-minute video about its origins, mission and activities. This video, *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.

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.

The past year saw election of a Republican governor and legislature in Alaska, all determined to promote development of the state's natural resources. This included efforts to relax and streamline permitting requirements — including environmental regulations — for development projects. Accordingly, the council was vigilant during the 2003 legislative session (January-May) to be sure the safety of North Slope crude oil transportation through state waters was not diminished.

The efforts to ease development permitting were largely successful. Fortunately, none of the measures that saw action in this session struck directly at the heart of the council's mission to promote environmentally safe operation of the Valdez Marine Terminal and associated tankers.

However, some measures were of enough general concern that the council took action. The council was most active on legislation making extensive changes to Alaska's Coastal Management Program in a way that greatly reduced the role of local communities in the permitting of development projects.



Photo by Linda Robinson, citizens' council

The council visits Juneau each year to meet with legislators. Here, from left to right: Council board member Dennis Lodge, council staffer Donna Schantz, Rep. Kelly Wolf, and council board member Jim Nestic.

We argued that action on the legislation should be postponed and a task force created to work on it over the legislative interim. Despite our efforts and those of many other Alaskans, the bill easily passed the Legislature in the closing days of the session. We plan to continue to work with local communities affected by the bill, and with state officials in charge of implementing it, to preserve as much opportunity as possible for local input into development permits in the coastal zone.


Federal Relations

The council monitors federal government actions and issues through a law firm in Washington, DC. Council staffers and board members travel to Washington for meetings with relevant officials, as appropriate. During the past year, the council has monitored the reauthorization of the National Invasive Species Act and supported adequate funding for the implementation of state aquatic nuisance species management plans.

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. 



STEPHEN LEWIS
President
City of Seldovia

EXECUTIVE COMMITTEE



MARILYNN HEDDELL
Vice President
City of Whittier



PATIENCE ANDERSEN FAULKNER
Treasurer
Cordova District Fishermen United



BLAKE JOHNSON
Secretary
Kenai Peninsula Borough



TOM COPELAND
Member at Large
Oil Spill Region Environmental Coalition



PAUL MCCOLLUM
Member at Large
City of Homer



JANE EISEMANN
Member at Large
City of Kodiak

EX-OFFICIO MEMBERS (NON-VOTING)

RON DOYEL
Alaska Dept. of Environmental Conservation

JOE HUGHES
Alaska Dept. of Natural Resources

JOHN WHITNEY
National Oceanic & Atmospheric Administration

COMMANDER MARK A SWANSON
U.S. Coast Guard/Marine Safety Office Valdez

CARL LAUTENBERGER
U.S. Environmental Protection Agency

MARK FINK
Alaska Dept. of Fish & Game

ROBERT LAPOINTE
Alaska Div. of Emergency Services

NANCY BIRD
Oil Spill Recovery Institute

DOUG MUTTER
U.S. Department of the Interior

CHUCK FREY
U.S. Forest Service



OTHER DIRECTORS



JOHN ALLEN
Community of Tatitlek



LOUIS BEAUDRY
Prince William Sound Aquaculture Corp.



AL BURCH
Kodiak Island Borough



SHERI BURETTA
Chugach Alaska Corp.



JOHN FRENCH
City of Seward



TOM JENSEN
Alaska State Chamber of Commerce



PETE KOMPKOFF
Community of Chenega Bay



JO ANN C. MCDOWELL, PH.D.
City of Valdez



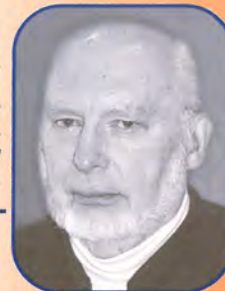
JIM NESTIC
Kodiak Village Mayors Assoc.



RICH NIELSEN
City of Valdez



KRISTIN SMITH
City of Cordova



STAN STEPHENS
Alaska Wilderness Recreation and Tourism Association

BOARD OF DIRECTORS



PRESENTATIONS & REPORTS

**A WHITE PAPER ON OIL SPILL
DISPERSANT FIELD TESTING.**
Merv Fingas, 5/1/2002.
955.431.020501.WPonFieldTst.pdf

**FIRE SAFETY UPDATE REVIEW OF THE ALYESKA
VALDEZ MARNE TERMINAL, JUNE, 2001.**
Loss Control Associates, 6/1/2002.
554.431.010601.FireUpdatRvw.doc

**COMMENTS ON THE DISPERSANT APPLICATION OF THE
OSRI OSCAR 2000 PWS MODEL.**
Environmental Technology Centre, 7/1/2002.
955.431.020701.OSRIOSCARMdl.pdf

**A PRELIMINARY REPORT ON GEOGRAPHIC RESPONSE
STRATEGIES IN ROCKY BAY AND PORT CHALMERS
FROM JULY 24-25, 2002.**
Council staff, 7/29/2002.
654.431.020729.GRSrockyBay.doc

PRESENTATION ON ICE DETECTION RADAR SYSTEM.
Council Staff, 8/6/2002. Arctic Research Commission
Science Conference, Cordova.
855.107.020806.IceAbstract.doc

**PRESENTATION ON THE ICE RADAR SYSTEM,
BACKGROUND, AND FUTURE PROJECTIONS.**
Rhonda Arvidson, Citizens' council, 8/6/2002.
Arctic Science Conference,
University of Alaska, Fairbanks.
855.107.020806.IceAbstract.doc

**A REPORT TITLED "TERMINAL WATER
FLOW MANAGEMENT."**
Council staff, 8/7/2002.
752.431.020807.WaterFlow.doc

**EFFECTIVENESS OF CITIZEN INVOLVEMENT —
REPORT FOR THE WHITE HOUSE TASK FORCE
ON ENERGY PROJECT STREAMLINING.**
Council staff, 8/12/2002.
440.431.020812.DCtaskForce.pdf

**OUT OF REGION EQUIPMENT ACQUISITION SURVEY, PREPARED
FOR THE PRINCE WILLIAM SOUND TANKER OIL DISCHARGE
PREVENTION AND CONTINGENCY PLAN HOLDERS.**
E-Tech International, Inc., 8/14/2002.
705.431.020814.ETechEquipSu.pdf

**COMMENTS AND CONCERNS REGARDING THE DRAFT
ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR RENEWAL
OF TRANS ALASKA PIPELINE SYSTEM (TAPS) GRANT AND
LEASE AS COMPILED BY THE PRINCE WILLIAM SOUND
REGIONAL CITIZENS ADVISORY COUNCIL.**
Council staff, 8/14/2002.
552.431.020814.DEISComments.pdf

**REVIEW OF RELIABILITY CENTERED MAINTENANCE
DOCUMENTS, RIGHT-OF-WAY RENEWAL PROJECT
VALDEZ MARINE TERMINAL.**
PetroTech Alaska, 8/15/2002.
552.431.020815.PetroTechRCM.pdf

**COMMENTS ON THE PWS TANKER SPILL PREVENTION AND
CONTINGENCY PLAN REQUEST FOR ADDITIONAL INFORMATION
(RFAI) RESPONSES.**
Council staff, 8/19/2002
651.105.020819.RFAICmtCover.pdf

**COMMENTS AND REQUESTS FOR ADDITIONAL INFORMATION
(RFAI) REGARDING THE VALDEZ MARINE TERMINAL OIL
DISCHARGE PREVENTION AND CONTINGENCY PLAN.**
Council staff, 9/12/2002.
651.431.020912.VMTODPCPCmts.doc

**LONG-TERM ENVIRONMENTAL MONITORING PROGRAM
(LTEMP): JULY 2001 - OCTOBER 2001 INTERIM REPORT.**
Kinnetic Laboratories, Inc., 9/26/2002.
951.431.020926.KinLabInterm.pdf

2001-2002 IN REVIEW.
(Annual report of the council.)
Council staff, 10/1/2002

**REPORT ON THE VMT FIRE TEAM AND VALDEZ FIRE
DEPARTMENT OCTOBER 25, 2001 TRAINING EXERCISE.**
Loss Control Associates, 10/25/2002.
554.431.011025.VMT/VFDExers.doc

FIRE SAFETY REVIEW OF THE VMT.
Loss Control Associates, 10/28/2002.
554.431.021028.FireSaftyRvw.pdf

PRESENTATION ON CHEMICAL DISPERSANTS PROGRAM.
Council Staff, 11/15/2002.
Alaska Regional Response Team, Anchorage.
955.107.021115.AARTdisp.ppt

**PRINCE WILLIAM SOUND REGIONAL CITIZENS' ADVISORY
COUNCIL FIVE-YEAR STRATEGIC PLAN, JULY 2003
THROUGH JUNE 2007.**
Council Board, 12/5/2002
210.431.021205.FY04FY08.doc

**ANALYSIS OF THE SEPTEMBER 24, 2002, MARCH 13, 2002,
OCTOBER 7, 1997, ALYESKA AIR QUALITY PERMIT
AMENDMENT APPLICATIONS FOR THE VALDEZ
MARINE TERMINAL.**
Environmental Solutions, 12/6/2002.
557.431.021206.AUPermitsWP.doc

PRESENTATION ON DISPERSANTS.
Merv Fingas, Environment Canada, 1/9/2003
Council Seminar, Anchorage.
955.107.030109.FingasDispSu.pdf

PRESENTATION ON VALDEZ AIR QUALITY ISSUES.
Council Staff, 1/20/2003.
Valdez City Council, Valdez.
557.107.030120.VdzCityCnclAQ.ppt

**A WHITE PAPER ON OIL SPILL DISPERSANT
EFFECTIVENESS TESTING IN LARGE TANKS.**
Environmental Technology Centre,
Environment Canada., 1/23/2003.
955.431.030123.WPWaveTnkTst.pdf

PRESENTATIONS, REPORTS

PRESENTATION ON ALASKA NONINDIGENOUS SPECIES PROGRAM.

Anson Hines and Greg Ruiz, Smithsonian Environmental Research Center, 1/28/2003.
NIS Working Group meeting, Anchorage.
952.107.030128.SERCpptPrsnt.pdf

CRITICAL EVALUATION OF CROSERF TEST METHODS FOR OIL DISPERSANT TOXICITY TESTING UNDER SUBARCTIC CONDITIONS.

Mace G. Barron, P.E.A.K. Research, 1/29/2003
955.431.030129.BarronToxEvl.pdf

DETAILED ANALYSIS AND REQUESTS FOR ADDITIONAL INFORMATION REGARDING THE VALDEZ MARINE TERMINAL OIL DISCHARGE PREVENTION AND CONTINGENCY PLAN RFAI SUBMITTAL.

Council staff, 2/5/2003
651.431.030205.VMTRFAICmts.pdf

AIR MONITORING OPTIONS FOR MEASURING BENZENE CONCENTRATIONS IN VALDEZ.

Environmental Solutions, 3/15/2003.
557.431.030315.BenzMsureRpt.doc

ANALYTICAL REPORT PRINCE WILLIAM SOUND RCAC LONG-TERM ENVIRONMENTAL MONITORING PROJECT SAMPLE DELIVERY GROUP CC741/ANALYTICAL REPORT No. CC741-A.

Geochemical and Environmental Research Group, 4/28/2003.
951.431.030428.LTEMPcc741&a

ANALYTICAL REPORT PRINCE WILLIAM SOUND RCAC LONG-TERM ENVIRONMENTAL MONITORING PROJECT SAMPLE DELIVERY GROUP CC742/ANALYTICAL REPORT No. CC742-A.

Geochemical and Environmental Research Group, 4/28/2003.
951.431.030428.LTEMPcc472&a.pdf

PRINCE WILLIAM SOUND LONG-TERM ENVIRONMENTAL MONITORING PROGRAM, 2000-2002 LTEMP MONITORING REPORT.

Kinetic Laboratories, Inc., 4/15/2003
951.431.030415.AnnualLT2002.pdf

FINAL REPORT SUMMARIZING THE DEVELOPMENT OF THE NON-INDIGENOUS SPECIES DATABASE.

Environmental Solutions, 4/30/2003.
952.431.030430.ESnisFNLrept.pdf

PUBLIC COMMENT REGARDING THE DRAFT NPDES PERMIT FOR THE BWTF AT ALYESKA MARINE TERMINAL.

Payne, Driskell, Barron, Kalmar and Lees, 6/3/2003
551.105.030603.FinlNPDEScmt.pdf

Check our website — www.pwsrca.org — or contact the council's Anchorage office for copies.



NEWS RELEASES & GUEST EDITORIALS SENT TO NEWSPAPERS & BROADCASTERS

PIPELINE REGULATORS SHOULD HEED CALL FOR CITIZEN OVERSIGHT.

Guest editorial by John Devens, on need for citizen oversight of Trans-Alaska Pipeline.
August 30, 2002

KENAI INCIDENT REMINDS OF NEED TO ADDRESS RESPONSE GAP.

Guest editorial by John Devens, on need to improve response capability or lower weather limits for loaded tankers at Hinchinbrook Entrance in Prince William Sound.
October 31, 2002

PRINCE WILLIAM SOUND ICEBERG RADAR PROJECT COMES ONLINE.

News release on startup of iceberg-detecting radar system developed by citizens' council.
December 20, 2002

AIR QUALITY ISSUE DESERVES THOUGHTFUL ATTENTION OF ALYESKA, REGULATORS, AND VALDEZ RESIDENTS.

Guest editorial by John Devens, on whether Alyeska tanker terminal is causing dangerous air pollution in Valdez.
March 28, 2003

CITIZENS' GROUP SEEKS TANKER RESCUE TESTS IN REALISTIC CONDITIONS.

News release on council's call for action to address response gap issue.
May 15, 2003

Check our website — www.pwsrca.org — or contact the council's Anchorage office for copies.

AND NEWS RELEASES





STAFF & OFFICES

Executive Director: John S. Devens, Ph.D.

ANCHORAGE

Deputy Director: Marilyn Leland

Public Information Manager: Stan Jones

Financial Manager: Gregory M. Dixon

Community Liaison: Linda Robinson

Project Managers: Joe Banta, Lisa Ka'aihue,
Janelle Cowan

Administrative Assistant: Berniece (Bernie) Cooper

Information Systems Assistant: Tracy Leithauser

PRINCE WILLIAM SOUND

REGIONAL CITIZENS' ADVISORY COUNCIL

3709 Spenard Road, Suite 100

Anchorage, Alaska 99503 USA

907-277-7222

Fax: 907-277-4523

Toll-free: 800-478-7221

VALDEZ

Executive Assistant: Jennifer Fleming

Program Coordinator: Donna Schantz

Project Managers: Dan Gilson, Tom Kuckertz, Ph.D.,
Rhonda Arvidson, Tony Parkin

Administrative Assistant: Tamara Byrnes

PRINCE WILLIAM SOUND REGIONAL CITIZENS'

ADVISORY COUNCIL

P.O. Box 3089

Valdez, Alaska 99686 USA

907-835-5957

Fax: 907-835-5926

Toll-free: 877-478-7221

INTERNET

Worldwide Web: www.pwsrcac.org

Anchorage email: anch@pwsrcac.org

Valdez email: valdez@pwsrcac.org



www.pwsrcac.org

3709 Spenard Road • Anchorage, Alaska 99503 • 907.277.7222 • 907.277.4523 fax
P.O. Box 3089 • Valdez, Alaska 99686 • 907.835.5957 • 907.835.5926 fax