EOBSERVER



Council publishes updated guide for technological disasters - p. 1

New tool to support Regional Stakeholder Committee - p. 2

Council announces election of Board officers - p. 3

Schantz: Safe transportation of oil requires local knowledge - p. 4

Alyeska: Annual health fair held online - p. 5

Review of maintenance records finds improvements needed for oil storage tank - p. 6

Corrosion protection system for terminal's crude oil pipes in good shape overall - p. 7

Community Corner: Prince William Sound Natural History Symposium goes virtual - p. 8

New staff member brings valuable expertise to Council - p. 9

Alaska State Chamber of Commerce - Chenega - Chugach Alaska Corp - Cordova - Cordova District Fishermen United - Homer Kenai Peninsula Borough - Kodiak - Kodiak Island Borough - Kodiak Village Mayors' Association - Oil Spill Region Environmental Coalition Port Graham Corp - Prince William Sound Aquaculture Corp - Seldovia - Seward - Tatitlek - Valdez - Whittier

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Council publishes updated guide for technological disasters

Oil spill contingency plans are helpful guides for physically preventing and cleaning up spills. However, as Alaskans learned after the Exxon Valdez oil spill, they are not designed to help people who live in the affected communities. These residents need help to understand, manage, and recover from the social and economic consequences of such calamities.

In the early 1990s, the Council developed a guide to help fill this need. "Coping with Technological Disasters – A User-Friendly Guidebook" can help individuals and communities deal with the disruptions brought by a technological disaster.

This past year an update to the guide was completed.

How does a technological disaster compare to a natural disaster?

A natural disaster tends to create a "therapeutic" community. People pull together to help each other recover from disasters such as tornadoes, floods, or earthquakes.

A technological disaster can have a corrosive effect on a community. Residents of an affected area may experience a range of disruptions in their

What is a technological disaster?

A technological disaster is a catastrophic event caused by humans which often results in toxic contamination of the environment. The effects are different than a natural disaster. communities, affecting family, friends, and work. These effects can be both visible and invisible. The conflict, tension, fear, and extended litigation can result in long-term psychological stress.

Continued on page 9

The effects of the Exxon Valdez oil spill on the people of Port Graham

"Our people get sick. Elders and children in the village, workers on the beaches, lots of sickness this year; stomachaches, head pain, bad colds.

We hardly talk to each other anymore. Everybody is touchy. Everybody is ready to jump on you and blame you.

People are angry and afraid, afraid and confused. Our elders feel helpless. They cannot work. They can't work on the cleanup. They cannot do all the activities of gathering food and preparing for the winter.

And most of all, they cannot teach their young ones the Native way. How will the children learn the values and the ways if the water is dead? Very afraid if the water is dead.

If the water is dead, maybe we are dead, our heritage, our tradition, our ways of life and living and relating to nature and to each other."

- Walter Meganack, Sr Village Chief, Port Graham June 26, 1989



Council launches tool to support Regional Stakeholder Committee

Do you know if you or your community is prepared to advocate for themselves in the case of an oil spill? The Council recently developed resources to support affected stakeholders during such an event.

The new toolkit was designed to support citizens who would participate in a process known as a Regional Stakeholder Committee. However, some of the tools would be useful for anyone affected by an oil spill.

What's in the toolkit?

The resources include helpful content such as:

- A template to help capture important details during a briefing by response leaders
- A list of potential stakeholder concerns
- Ideas for available resources that may help support the response

The kit also includes some basic information about the spill response system in Alaska and how an oil spill response is organized.

What is a Regional Stakeholder Committee?

Often referred to as an "RSC," this committee is unique to Alaska, and is made up of individuals who:

- Are directly impacted by a large oil spill in Alaska
- Are invited to participate by the Unified Command (leaders of a spill response)

During a large spill or other major incident, the Unified Command may set up this committee and invite members of affected areas to participate.

The RSC is beneficial for communities, individuals, and the spill responders.

Good communication between the response and those affected by the spill is important. One lesson from the Exxon Valdez oil spill was that responders are usually not from the immediate area and locals' knowledge of their region, waters, and available resources was valuable for the response.

Committee members get an opportunity to meet with the leaders of a spill response. They can provide advice and recommendations on incident priorities and objectives and help identify local resources that could be useful to the response.

All resources, including two audio interviews about the RSC, can be found on the Council's website at: www.pwsrcac.org/RSC



Interview

Robert Archibald talks about his first involvement with the RSC process during a large-scale spill exercise in 2019.





Interview

Donna Schantz speaks about the Council, why the Council developed these resources, and how the RSC process can be beneficial for response decision makers.





Council announces election of Board officers

The Council held its annual Board meeting in Valdez, Alaska, on May 6-7, 2021. Among other business, the Board convened to elect officers who will serve from May 2021 to May 2022.

The elected executive committee is comprised of:

- President: Robert Archibald, representing the City of Homer
- Vice President: Amanda Bauer, representing the City of Valdez
- Treasurer: Wayne Donaldson, representing the City of Kodiak
- Secretary: Bob Shavelson, representing the Oil Spill Region Environmental Coalition
- Three Members-at-Large: Ben Cutrell, representing Chugach Alaska Corporation; Robert Beedle, representing the City of Cordova; and Rebecca Skinner, representing the Kodiak Island Borough

"The Council's work has never been more important," said Archibald. "It is crucial we not forget the reasons that lead to the creation of this organization and continue to work together to maintain the record of safe, efficient transportation of crude oil through Prince William Sound. Memories of the Exxon Valdez oil spill run deep in our minds. Not since regulations were put in place as the result of that spill has the state been so challenged in maintaining these high standards. I am honored to lead our Board for another year as advocates of this mission. Citizen oversight remains a key component to maintaining robust spill prevention and response systems and benefits everyone – citizens, industry, and regulators alike."

The Council is grateful to have the support of its many volunteers from all over the Exxon Valdez oil spill region. The new executive committee is an excellent representation of the Council.









Archibald

Bauer

Donaldson

Shavelson







Cutrell

Beedle

Skinner

New members join Board of Directors

At its May meeting, the Board seated four new members:

- Angela Totemoff replaced Roy Totemoff as the representative of the community of Tatitlek
- Patrick Domitrovich replaced Rob Chadwell as the representative of the City of Seward
- Nick Crump replaced Thane Miller as the representative of the Prince William Sound Aquaculture Corporation
- Elijah Jackson filled a vacant seat representing the Kodiak Village Mayors Association









Totemoff

Jackson

Crump

Domitrovich

From the executive director:

Safe transportation of oil requires local knowledge

Since 2016, there has been an increase in foreign flagged tankers loading Alaska North Slope crude oil from the Valdez Marine Terminal, or VMT. While foreign flagged ships are crewed by licensed and professional mariners, these vessels may introduce increased risk of an accident or oil spill due to the lack of familiarity with the unique environmental conditions or prevention and response systems in our region.

A lack of familiarity with the operating environment appears to have been the cause of an incident in the Gulf of Alaska on April 14 with the foreign flagged tanker, Stena Suede. This unladen vessel arrived ahead of its estimated time to load oil at the VMT, with other tankers scheduled ahead of it.

Instead of the customary response in this situation - picking up a marine pilot at the Bligh Reef station and proceeding to the only designated safe anchorage for large vessels in our region at Knowles Head - the Stena Suede decided to hold off in the Gulf of Alaska. When the winds started to pick up, the crew dropped anchor about 20 miles outside of Hinchinbrook Entrance. Subsequently, they were

unable to pull up the anchor due to damaged equipment and the

vessel proceeded to drag anchor for more than 24 hours, losing some mooring equipment as well. Once the crew made repairs, they proceeded to the VMT, loaded oil, and left without any further issues.

Foreign flagged tankers, such as the Stena Suede, are vetted prior to taking on oil at the VMT and provided with a number of documents in advance of sailing, including



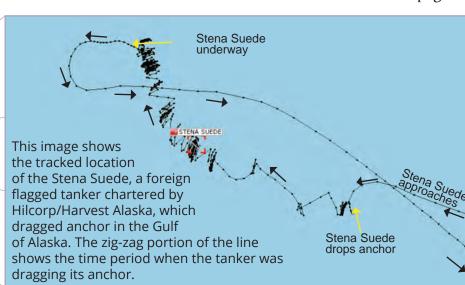
Donna Schantz Executive Director

contingency plans, the U.S. Coast Guard vessel traffic system manual, the vessel escort and response plan, and more – over 800 pages in total. While these important documents describe the operating environment and regulatory requirements, it is unrealistic to expect crew members to digest this large amount of material, discern the most relevant pieces, and retain all of the essential safety measures. Additionally, there is commonly

Continued on page 10



The Automatic Identification System (AIS) from the Marine Exchange of Alaska provides the Council with real-time information on vessel locations and movements in the Port of Valdez, Prince William Sound, and Cook Inlet.





From Alyeska:

Annual health fair held online

Spring brings many things to Prince William Sound – salmon, humpback whales and orcas, and the Alyeska Prince William Sound Traveling Health Fair! The 2020 health fair was canceled just weeks before departure due to the worsening pandemic. Like many things this year, COVID-19 required some creative retooling to carry out the 2021 event, which was held virtually the week of May 17.

Beginning in January, Alyeska personnel, local health and wellness providers, and Chenega and Tatitlek teachers and community members worked to develop classroom sessions to support specific targets set by the Chugach School District. Key areas of focus included nutrition, body awareness and first aid, and substance abuse prevention.

"The providers are always willing to adapt, create, and offer topics that we've asked for and deliver it all with such meaningful presentation," said Tatitlek teacher Nichole Palmer. "They were innovative and came up with a way to deliver the traveling health fair, without traveling! I believe our students were able to get knowledgeable information that will help them progress in their levels."

Classroom sessions were held over Zoom and materials that complimented the virtual lessons were distributed to the schools beforehand, along with other goodies for the students.

Among a strong slate of classes, there were some highlights. Students learned some healthy, easy, and delicious dip recipes made from pantry staples and what nutrition labels can tell them about what they're eating. A yoga teacher led elementary students in movement class based on the life cycle of salmon. The week capped off with

a panel put on by Alyeska's Alaska Native program for Tatitlek and Chenega high schoolers. Employees from across Alaska talked about their journeys to the TAPS workforce, notable mentors, helpful tips, and the importance of hard work and resilience.

"We were disappointed that we couldn't hold the event in person this year but keeping community members and providers safe and healthy was at the forefront of our minds," said Kate Dugan, Valdez Communications Manager. "I'm so grateful for the volunteers who brought flexibility and imagination to the table and made the event successful. We're all looking forward to an in-person Prince William Sound Traveling Health Fair soon!"

• Submitted by Alyeska Corporate Communications

Nutrition with high school



Body movement with elementary school



Photos courtesy of Alyeska Corporate Communications.



Review of maintenance records finds improvements needed for oil storage tank

Oil spill unlikely as long as planned repairs are not delayed further

Last year, COVID-19 delayed planned repairs to one of the large crude oil storage tanks at the Valdez Marine Terminal. Alyeska rescheduled those repairs for 2023. A recent Council study found that, as long as these repairs are not delayed any longer than 2023, a spill is unlikely.

Taku Engineering, an engineering firm with expertise in tank and piping inspections, assessing and controlling corrosion, and cathodic protection conducted the tank inspection review for the Council. Taku's engineers analyzed Alyeska's documentation of inspections and maintenance for Tank 8 located within the East Tank Farm at the Valdez Marine Terminal.

2019 inspection raised concerns

After some concerning findings during a 2019 inspection of the inside of Tank 8, Alyeska planned to replace the tank floor and cathodic protection system. The repairs were scheduled for 2020. However, the COVID-19 pandemic delayed those major repairs. The Alaska Department of Environmental Conservation extended the deadline for completion to 2023. The tank will then be removed from service and repairs made.

Council conducted study to minimize risk of oil spills

Taku's report concluded that the immediate risk of a leak from Tank 8 between now and 2023 is low. The engineers made several recommendations that would help ensure that a spill remains unlikely. They found that an unmaintained seal around the perimeter of the tank allowed rain and snow melt to migrate and accumulate under the tank's

floor. Under certain circumstances, this could lead to damage. Taku recommended that Alyeska maintain the seal so water cannot cause these problems.

A **cathodic protection system** limits corrosion on metal surfaces.

Taku also found that some of the cathodic protection system testing data was inadequate. That data is used to ensure that the system is operating effectively, safeguarding the tank's floor from corrosion.

Details and are available in the final report on our website:

www.tinyurl.com/StorageTank8 [PDF 4.1 MB]



Tank 8, seen here being cleaned in preparation for an internal inspection, is one of the large crude oil storage tanks at the terminal. This tank is 63 feet tall, 250 feet in diameter, and can hold up to 21,420,000 gallons of crude oil. Photo by Austin Love.



Corrosion protection system for terminal's crude oil pipes in good shape overall

A recent study of operations and maintenance of Alyeska's cathodic protection system found that the program was "very good;" however improvements are still needed.

National Pipeline Services, a consulting company that specializes in cathodic protections, conducted the study for the Council. They looked specifically at the systems that prevent corrosion in the metal piping that carries crude oil through the terminal to the large oil storage tanks.

The researchers based their report on a review of documents, procedures, testing, and results from previous inspections of those systems.

The final report summarized the systems currently in use at the terminal, as well as Alyeska's methods for monitoring and testing the systems.

The researchers concluded that overall, it appears Alyeska has a "very good corrosion and cathodic protection program." The procedures for operating and monitoring the system are adequate and within standard industry practices and Federal guided requirements.

The report also noted that certain improvements could further reduce the risk of a crude oil spill, such as ensuring data collection procedures are adequately implemented. Data used to ensure that the crude oil piping's cathodic protection system is operating effectively does not appear to have been collected properly.

The researchers commended Alyeska on their use of remote monitoring systems, which continuously monitor and evaluate the systems. They added that

Alyeska's annual reporting for integrity management is exceptional and well documented.

The full report"Review of Cathodic Protection Systems at the Valdez Marine Terminal" by Keith Boswell of National Pipeline Services is available on our website:

www.tinyurl.com/ReviewofCP [PDF 1.9 MB]



Left: Keith Boswell from National Pipeline Services observes cathodic protection system equipment at the Valdez Marine Terminal in 2019. Photo by Diana Bouchard. **Community Corner:**

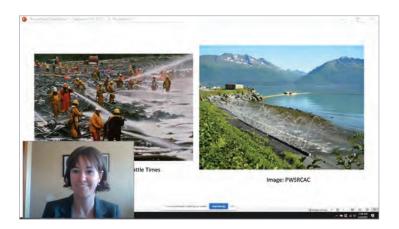
Prince William Sound Natural History Symposium goes virtual

By Betsi Oliver Outreach Coordinator

The third annual Prince William Sound Natural History Symposium, held on May 24, 2021, featured 20 speakers and over 260 participants. The Prince William Sound Stewardship Foundation hosts this annual event. The foundation is a small volunteerled nonprofit dedicated to keeping Prince William Sound healthy, clean, and wild, for all to enjoy. The Council helped sponsor the event and assisted the planning effort.

Speakers represented tribes, land management agencies, nonprofits, and scientists working in Prince William Sound and the North Gulf of Alaska. Representatives from Chugach Regional Resources Commission started the day with a Land Acknowledgment and the Mayor of Whittier, Dave Dickason, welcomed attendees. Topics ranged from wildlife to glaciers to history. Council volunteer Dave Goldstein presented on weather in Prince William Sound. I provided an introduction to how oil spill response is managed in our region.

The symposium was first conceived in 2019 as a preseason training for guides and interpreters based out of Whittier. Nobody expected the event, which was held at the Whittier Public Safety Building, to be



standing-room-only with over a hundred attendees.

Then, in early 2020, the organizers faced a challenge: cancel, or go virtual? I had already attended a few virtual conferences thrown together hastily in March 2020, so I knew it could be done. I was able to support the transition to an online symposium, preparing speakers and hosts to pull off this "new" thing: a



Outreach Coordinator

live, public videoconference event. Over 260 people registered that year. It was a success! The virtual platform allowed participation from the entire Prince William Sound region, as well as statewide and beyond. Registration in 2021 matched numbers from 2020.

The future of the symposium is unclear. Presenters, participants, and organizers have all said they want to see it continue. After three years of volunteer efforts, the foundation is seeking financial support to hire a symposium coordinator. As pandemic restrictions lift, many would like to see the event return to Whittier. The possibility of a hybrid event (in person and online) seems to serve both the needs of local guides and interpreters – the original audience – and the broader interest that has developed over two years of online distribution. A dedicated coordinator would be critical to a successful hybrid event, which requires advanced audio-visual technology and greater staff support. The foundation hosts other events, including extensive volunteer efforts, throughout the year.

Recordings from the 2020 and 2021 symposiums are posted on the foundation's website:

www.princewilliamsound.org



New staff member brings valuable expertise to Council



Danielle Verna

Dr. Danielle Verna joined the Council's staff in April, filling the position of Environmental Monitoring Project Manager.

The position was previously held by Austin Love, who had been simultaneously managing this area of Council work and Terminal Operations for the last year and a half.

Verna brings important skills and knowledge to the Council. For her doctoral thesis, she studied how

maritime trade, including oil transport, can affect the timing and location of invasive species delivery from the ballast water of tankers and bulk carriers, as well as the regulations and current events that impact trade patterns and shipping practices.

She is passionate about applying science to real world management and policy needs.

Her credentials include a Ph.D. in Environmental Science from Portland State University, a M.S. from Alaska Pacific University, and a B.S. from the U.S. Coast Guard Academy.

Council publishes updated guide for technological disasters

Continued from page 1

Visible disruptions

The most obvious and tangible disruptions occur to the ordinary flow of goods, services, and jobs.

For example, the 1989 spill created thousands of high-paid jobs in cleanup work. As a result, ordinary employers in communities—local businesses, Native corporations, and city governments—lost workers and found it even harder to function normally during the crisis.

These visible disruptions can usually be restored in a reasonable length of time.

Invisible disruptions

More difficult to restore is damage to the mental and physical health of residents. These issues are harder to identify and can last a long time. Because they are hard to see, they are often ignored or misunderstood.

Studies show that mental health impacts can persist decades after a technological disaster. The Exxon Valdez oil spill disrupted families and led to family violence, depression, alcoholism, drug abuse, and psychological impairment, lingering for decades.

Update incorporates new knowledge

After the 1989 spill, Dr. Steve Picou, a sociologist from the University of South Alabama, brought his research team to Cordova to study the impacts. They interviewed residents about their experiences and used the results to develop the first version of this guide.

In the years since Dr. Picou's study, the guidebook has helped communities dealing with various disasters, including the 2010 BP Deepwater Horizon oil spill. Many lessons were learned along the way. The updated guidebook incorporates new strategies based on events and recent scientific research.

The revisions were based on the input of many contributors including Council volunteers Patience Andersen Faulkner, Dr. Jeffrey Brooks, and leadership from Dr. Davin Holen from Alaska Sea Grant.

The updated guidebook and appendices including extensive resources are available on our website at:

www.tinyurl.com/TechDisasters2021

Safe transportation of oil requires local knowledge

Continued from page 4

understood local knowledge that is not necessarily written down in these plans or perhaps not in a way that highlights their importance.

Licensed marine pilots, such as those stationed at Bligh Reef, are highly trained experts in ship navigation and possess extensive knowledge of the local waterways, including environmental conditions specific to that area. Federal law requires a marine pilot be on board vessels, such as crude oil tankers, when entering bays, rivers, harbors, and ports of the U.S. For the ports and waterways of southwest Alaska, including Prince William Sound, the Southwest Alaska Pilots Association, or SWAPA, provides these services. Their role is to guide ships safely through confined waters, working to ensure the protection of shipping and the marine environment, as well as life and property.

Anchoring outside of ports is common practice around the world. The Stena Suede was in compliance with all applicable regulations as it was outside of state and federal jurisdiction with no requirement for a local marine pilot to be on board at that time. Inadequate communication between the ship and those familiar with the region may have prevented the crew from being warned against

setting anchor in the Gulf.

It is the opinion of many marine operators in our region that there is no safe anchorage in the Gulf of Alaska. A letter dated April 22, 2021, from SWAPA to the U.S. Coast Guard pointed out that it is inadvisable to anchor in open waters in the Gulf given the unpredictable environmental conditions which may be encountered at any time of year.

The Stena Suede incident fortunately did not result in an accident or oil spill, but it put a spotlight on a potential weak link in the robust safety systems of our region. SWAPA has clarified their guidance for anchoring large seagoing vessels and plans to recommend updates to NOAA's Alaska Coast Pilot. Industry representatives have also said they are looking at ways to improve the process of conveying important regional safety information to foreign flagged vessels. PWSRCAC plans to monitor these developments and provide input. We must all remain vigilant and be willing to use lessons learned to continuously improve our regional safety systems designed to prevent oil spills.

Guidance from Southwest Alaska Pilots Association: www.tinyurl.com/swpilots

Upcoming Board meetings

The September 15 and 16, 2021 meeting of the Council's Board of Directors will be held online.

The Council's Board of Directors meets three times annually. Upcoming meetings:

- September 15-16, 2021 Virtual
- January 27 28, 2022 Anchorage
- May 5 6, 2022 Valdez

Board meetings are open to the public and an opportunity for public comments is provided at the beginning of each meeting.

More information on our website: www.pwsrcac.org





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

Who we are

The Council is an independent, nonprofit corporation formed after the 1989 Exxon Valdez oil spill to minimize the environmental impacts of the Trans Alaska Pipeline System's terminal and tanker fleet.

The Council is a voice for the people, communities, and interest groups in the region oiled by the Exxon Valdez spill.

Those with the most to lose from oil pollution must have a voice in the decisions that can put their livelihoods and communities at risk.

The Council's role

The Council is certified under the federal Oil Pollution Act of 1990 as the citizen advisory group for Prince William Sound and operates under a contract with Alveska Pipeline Service Co. The contract, which is in effect as long as oil flows through the pipeline, guarantees the Council's independence, provides annual funding, and ensures the Council the same access to information and terminal facilities as state and federal regulatory agencies.

We combat the complacency that led to the 1989 spill by fostering partnerships among the oil industry, government, and local communities in addressing environmental concerns.

Board of Directors

The Council's 18 member entities are communities and interest groups affected by the Exxon Valdez oil spill:

Alaska State Chamber of Commerce • Chenega Chugach Alaska Corporation • City of Cordova • City of Homer City of Kodiak • City of Seldovia • City of Seward • City of Valdez City of Whittier • Cordova District Fishermen United Kenai Peninsula Borough • Kodiak Island Borough Kodiak Village Mayors Association • Oil Spill Region Environmental Coalition • Port Graham Corp.

Prince William Sound Aquaculture Corp. • Tatitlek



Our research

The Council's advice depends on quality research and accurate science about oil transportation safety and the environmental impacts of the Valdez Marine Terminal and tankers, as well as local knowledge and expertise.

The Council regularly retains experts in various fields to conduct independent research on issues related to oil transportation safety and performs a variety of functions aimed at reducing pollution from crude oil transportation activities in and through Prince William Sound and the Gulf of Alaska.

Advisory Committees

While the strategic direction of the Council's work is set by the Board, much of the Council's work is done through permanent volunteer committees made up of Board members, technical experts, and local citizens with an interest in making oil transportation safer in Alaska.

These standing committees work with staff on projects, study and deliberate current oil transportation issues, and formulate their own advice and recommendations to the Council's Board of Directors

Our committees provide an avenue for public participation in the Council's work.

Terminal Operations and Environmental Monitoring: The Terminal Operations and Environmental Monitoring Committee identifies actual and potential sources of episodic and chronic pollution at the Valdez Marine Terminal.

Port Operations and Vessel Traffic Systems: The Port Operations and Vessel Traffic Systems Committee monitors port and tanker operations in Prince William Sound. The committee identifies and recommends improvements in the vessel traffic navigation systems and monitors the vessel escort system.

Scientific Advisory: The Scientific Advisory Committee sponsors independent scientific research and provides scientific assistance and advice to the other council committees on technical reports, scientific methodology, data interpretation, and position papers.

Oil Spill Prevention and Response: The Oil Spill Prevention and Response Committee works to minimize the risks and impacts associated with oil transportation by reviewing and recommending strong spill prevention and response measures, adequate contingency planning, and effective regulations.

Information and Education: The Information and Education Committee supports the Council's mission by fostering public awareness, responsibility, and participation in the Council's activities through information and education.