

**ALASKA STATE LEGISLATURE
HOUSE RESOURCES STANDING COMMITTEE**

January 31, 2011

1:03 p.m.

MEMBERS PRESENT

Representative Eric Feige, Co-Chair
Representative Paul Seaton, Co-Chair
Representative Peggy Wilson, Vice Chair
Representative Alan Dick
Representative Neal Foster
Representative Bob Herron
Representative Cathy Engstrom Munoz
Representative Berta Gardner
Representative Scott Kawasaki

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

OVERVIEW: DIVISION OF SPILL PREVENTION & RESPONSE

- HEARD

OVERVIEW: DIVISION OF WATER

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

LARRY DEITRICH, Director
Division of Spill Prevention & Response
Department of Environmental Conservation
Juneau, Alaska

POSITION STATEMENT: Provided a PowerPoint presentation on the Division of Spill Prevention and Response.

LYNN TOMICH KENT, Director
Division of Water
Department of Environmental Conservation

Anchorage, Alaska

POSITION STATEMENT: Provided an overview of the Division of Water.

ACTION NARRATIVE

[1:03:32 PM](#)

CO-CHAIR PAUL SEATON called the House Resources Standing Committee meeting to order at 1:03 p.m. Representatives Seaton, P. Wilson, Herron, Dick, Kawasaki, Foster, Munoz, and Feige were present at the call to order. Representative Gardner arrived as the meeting was in progress.

Overview: Division of Spill Prevention & Response

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CO-CHAIR SEATON announced that the first order of business would be an overview by the Department of Environmental Conservation, Division of Spill Prevention & Response.

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LARRY DEITRICH, Director, Division of Spill Prevention & Response, Department of Environmental Conservation, introduced the PowerPoint presentation, titled "Alaska Department of Environmental Conservation," which focused on the Division of Spill Prevention and Response (SPAR) [Included in members' packets], and read the division's mission (slide 2): "Protect public health and the environment through prevention, preparedness and response to oil and hazardous substance releases."

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MR. DEITRICH, showing slide 3, stated the SPAR goals to be prevention of spills, preparedness for the occurrence of spills, and responsiveness to spills, whether it be oil or hazardous substances. He pointed out that the division's primary source of funding was the Response Fund.

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MR. DEITRICH noted that slide 4 depicted the division's organizational structure, and he listed its four programs:

Prevention and Emergency Response, Contaminated Sites, Industry Preparedness, and Response Fund Administration.

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MR. DEITRICH moved on to slide 5, "Qualifications," and shared that the division's senior leadership had a total of 156 years of experience. He noted the educational backgrounds of these leaders and the job classes which they managed.

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MR. DEITRICH directed attention to slide 7, "Prevention and Emergency Response Mission," and read the mission: "Protect public health and the environment by preventing and mitigating the effects of oil and hazardous substance releases and ensuring their cleanup through government planning and rapid response."

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MR. DEITRICH observed that slide 8, "Total Spills by Fiscal Year," plotted a bar graph which depicts the annual spills in Alaska since 1996.

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CO-CHAIR FEIGE asked what constituted a minimum spill.

MR. DEITRICH replied that the Clean Water Act defined that any spill of oil or hazardous substance must be reported.

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REPRESENTATIVE KAWASAKI offered his belief that, with an aging infrastructure, the trend would have increased, instead of decreased, and he asked why the downward trend.

MR. DEITRICH, in response to Representative Kawasaki, offered his belief that the spill prevention programs were "coming into play."

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MR. DEITRICH presented slide 9, "Responsibilities," and reported that there were three response teams, which allowed for a 24/7 capability for emergency oil spill and hazardous material (hazmat) response anywhere in Alaska. He mentioned that SPAR

had agreements with local communities, but that it handled the environmental functions in any disaster response.

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MR. DEITRICH explained that slide 10, "Emergency Response Team Areas," showed the zone coverage for each of the three response teams.

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MR. DEITRICH addressed slide 11, "Statewide Hazmat Response Teams," and explained that the state had opted not to have Level A hazmat protective clothing, which was a fully encapsulated suit with a self contained breathing apparatus. Instead, there was an agreement with the Anchorage and Fairbanks fire service districts to allow these groups to respond outside of their jurisdiction, while working for the state on-scene coordinator. He assessed that this was the beginning of a statewide hazmat capability, which now consisted of 25 organizations.

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MR. DEITRICH introduced slide 12, "Oil Spill Response Plans," which summarized that the Alaska spill plan was an amalgamation of federal and state spill plans. He added that the regulated industries had its' requirements for oil spill planning.

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CO-CHAIR SEATON asked if these plans had been specifically developed for Alaska.

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MR. DEITRICH replied that environmentally sensitive areas and species had to be identified in the Alaska plan, and beyond that, the plan met the standard requirements. In response to Co-Chair Seaton, he clarified that the plan was specific to Alaska.

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MR. DEITRICH stated that slide 13, "Local Spill Response Agreements and Equipment," depicted the 43 communities around the state with spill response agreements and the locations for response equipment.

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MR. DEITRICH, continuing on to slide 14, "Prevention and Emergency Response Activities," spoke about the 684 responses to 1740 reported spills, the 24 significant oil and hazardous substance spills, the 25 oil spill drills and exercises, the statewide hazardous materials commodity flow study, and the updates of the unified and subarea response plans.

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REPRESENTATIVE HERRON asked why some responses from 2007 were still listed as active.

MR. DEITRICH suggested that any remediation might have extended the time, and he offered to provide an update.

MR. DEITRICH, in response to Representative Herron, said that a red star was an indication of an information update.

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MR. DEITRICH relayed that the development and expansion of the Alaska SPAR program had been event driven, and he showed slides 15, 16, 17, 18, and 19, all depicting spill events.

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CO-CHAIR SEATON, pointing to slide 19, asked if this was a heat or a materials signature.

MR. DEITRICH replied that it showed a temperature differential.

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MR. DEITRICH shared that slide 20 showed SPAR's involvement with the response coordination to the Yukon flooding.

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MR. DEITRICH moved on to slide 22, "Industry Preparedness Mission" and said that the mission was to "Protect public, health, and the environment by ensuring that producers, transporters and distributors of crude oil and refined oil products prevent oil spills and are prepared materially and financially to respond and clean up spills."

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MR. DEITRICH explained that slide 23, "Oil Production, Storage, and Transportation Infrastructure," showed the crude oil infrastructure, which consisted of oil wells, production facilities, crude oil transmission pipelines, and storage tanks, then the refineries, and finally, the noncrude oil terminals, pipelines, and storage terminals. He emphasized that the components shown in the circle, which included aboveground storage tanks, aircraft, and tank trucks, were not regulated.

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MR. DEITRICH, indicating slide 24, "Regulated Components," stated that the regulated industry had very specific standards.

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MR. DEITRICH, in response to Co-Chair Seaton, explained that three phase referred to the oil, gas, and water which came out of the ground from the well before separation.

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REPRESENTATIVE KAWASAKI asked about oil spill preparedness and the aging infrastructure.

MR. DEITRICH replied that he would address that later. He moved on to slide 25, which showed that 73 percent of the spills were from unregulated facilities.

CO-CHAIR SEATON asked for a description of the unregulated facilities.

MR. DEITRICH referred back to slide 23, and pointed to the facilities in the circle, which included aboveground storage tanks, tank trucks, and aircraft.

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REPRESENTATIVE P. WILSON asked how SPAR was made aware of spills from non-regulated facilities.

MR. DEITRICH replied that the owner was required to do the cleanup.

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REPRESENTATIVE GARDNER, referring to slide 25, asked how the pie chart would reflect the volume of the spills.

MR. DEITRICH replied that he would supply that information, which included a number of components.

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REPRESENTATIVE MUNOZ asked if the division had statutory responsibilities for response to the unregulated spills.

MR. DEITRICH replied that the basic statutory requirement was that a spill must be cleaned up. He clarified that there was not any statutory requirement for the equipment, the operation, or the spill prevention for unregulated facilities.

REPRESENTATIVE HERRON, referring to slide 26, asked for a differentiation between "Best available technology" and the goal to make preparedness and response "better."

MR. DEITRICH replied that there was a requirement for regulated facility operators to use the best available technology.

REPRESENTATIVE HERRON asked what "better" would mean.

MR. DEITRICH replied that a goal of SPAR was for fewer spills, and that would be "better" operation, regardless of regulated or unregulated. Referring to slide 26, he listed its responsibilities to include spill drills, inspections, contingency plans, and financial responsibility.

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MR. DEITRICH spoke briefly about slide 27, "Drills" and slide 28, "Spill Cooperatives."

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MR. DEITRICH stated the importance for prevention, and pointing to slide 29, "Overseas Ohio," he discussed the crude oil tanker and its collision with ice.

MR. DEITRICH stated that slide 30 depicted a "Tanker Escort System." He moved on to slide 31, "Industry Preparedness

Activities," which listed the contingency plan actions, inspections, exercises, and spills analysis.

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MR. DEITRICH spoke about slide 32, "Pump Station 1 Bypass," and shared that the restart had to be through the corroded pipe.

MR. DEITRICH pointed out that a crew was testing the pipe wall thickness on slide 33, "Pipeline Inspections."

MR. DEITRICH explained that slide 34, "Drift River Oil Terminal," showed a threat which had required mobilization by the response teams.

MR. DEITRICH examined the pipeline break on slide 35, "Lisburne Pipeline Break."

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MR. DEITRICH viewed slide 36 and slide 37, "Contaminated Sites Mission," and read the mission for the Contaminated Sites program: "protect public and the environment by identifying, overseeing, and conducting the cleanup, redevelopment and management of contaminated sites in Alaska." He declared that most of the contamination sites were legacy sites, slide 38, as the current cleanups were "robust" and taken to completion.

MR. DEITRICH described slide 39, "Open vs Closed Sites (cumulative)," which depicted the number of sites for which SPAR had responsibility.

MR. DEITRICH reported that 83 percent of the sites were contaminated by petroleum, slide 40, "Pollutant Type."

MR. DEITRICH explained that inhalation, ingestion, or dermal exposure were the exposure routes that SPAR worked to block, slide 41, "Exposure Pathways."

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MR. DEITRICH analyzed slide 42, "Risk Continuum," which assessed the relative risks posed by contaminated sites, and slide 43, "Hazard Ranking," which showed the percentage proportion of risk priorities.

MR. DEITRICH presented slide 44, "Contaminated Sites Responsibilities," listing the program responsibilities, which included contaminated site management, cleanup of state, federal and private sites, and reuse and redevelopment.

MR. DEITRICH indicated that slide 45, "Site Ownership," showed that 50 percent of the contaminated sites were federal.

MR. DEITRICH explained that slide 46, "Contaminated Site Remediation," showed a refinery site with an interception trench to capture the contaminants, and that slide 47, "Activities," listed the annual assessment, monitoring or cleanup of sites. He flashed through slides 48, 49, 50, and 51 which pictured contamination sites including abandoned drums, a contaminated plume, an historical bunker tank, and contaminated soil on the North Slope.

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REPRESENTATIVE P. WILSON asked if there were many abandoned drum sites.

MR. DEITRICH cautioned that a new cache of abandoned drums seemed to appear just when it seemed that all had been cleaned up. He opined that the North Slope had been cleared but that there were still problem areas in the Aleutians and the Bristol Bay area.

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MR. DEITRICH reviewed the last SPAR program, slide 53, the "Response Fund Administration," and read its mission:

Manage and administer the Oil and Hazardous Substance Release Prevention and Response Fund as a sustainable funding source for the state's core spill prevention and response programs.

He listed its responsibilities, slide 54, to include: Response Fund management, cost recovery, contract management, biennial report preparation for the legislature, and information technology team management.

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REPRESENTATIVE P. WILSON asked about cost recovery.

MR. DEITRICH replied that although the spiller paid for any costs related to the cleanup, the cost recovery needed to be averaged over a three year period, as the recovery may not happen for a few years. He opined that 90 percent of the costs were recovered.

MR. DEITRICH, in response to Representative Kawasaki, said that the cost estimate for cleanup of federal sites was done prior to clean up so that the agency involved could request the money in its next budget cycle.

MR. DEITRICH directed attention to slide 55, "Response Fund," which depicted the funding flow for both response and prevention.

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MR. DEITRICH displayed slide 56, "Activities," which listed the money recovered from responsible parties, from federal grants, from significant spill responses, and from state contracts for assessment and cleanup.

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MR. DEITRICH pointed out that slide 57, "Response Fund Sustainable Business Model," graphed the decline in crude oil production. He declared that the funding for the response fund was based on production, not price per barrel, so as the oil flow diminishes so does the fund revenue.

MR. DEITRICH, speaking about slide 58, "Initiatives," and slide 59, discussed the risk assessments, analysis, and emergency towing system.

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MR. DEITRICH, in response to Representative Seaton, said that the tow line kits were pre-positioned in Unalaska, and that one was air deployable. He reflected that other tow line kits would be pre-deployed in Kodiak and Sitka.

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MR. DEITRICH pointed to slide 60, "Circumpolar Shipping Routes," which depicted the volume of shipping.

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MR. DEITRICH moved on to slide 61, "Arctic Shipping Routes," and explained the various northern routes.

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MR. DEITRICH closed with slide 62, "Deepwater Horizon Lessons Learned," noting that Alaska had participated in a nationwide review, and that many lessons were learned.

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MR. DEITRICH, in response to an earlier question by Representative Kawasaki, explained that a section of pipe, encased in concrete, had been pre-identified for repair because of corrosion. There was seepage, and the pipeline was shut down, but as the seeping oil went into the containment structure, no significant amount of it had escaped. He noted that there were two pipeline inspection gauges (pigs) in the line at the time of shut down. It was necessary to remove them so they would not freeze in the pipe, and this required that warm oil be sent through the pipe. The dilemma was whether to wait for the by-pass pipe to be completed, or re-start the oil flow through the damaged pipe, which could have lead to "unknown potentially irreversible consequences to the system." The decision was made to re-start through the damaged pipe, the two pigs were removed from the system, and the system was closed again until a temporary bypass was completed. He noted that a permanent repair would be done during the upcoming summer months.

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REPRESENTATIVE KAWASAKI asked if there were other portions of the pipeline with potentially similar problems.

MR. DEITRICH explained that "changing conditions are going on with the composition of the oil." He opined that the programs would need to become more sophisticated and aggressive in order to deal with the increase in sediment and the decrease in temperatures from low flows.

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CO-CHAIR SEATON asked to clarify that the other sections that could not be pigged were on an accelerated maintenance schedule.

MR. DEITRICH agreed. He reminded the committee that the corrosion had been identified, and that the pipe replacements would allow for complete testing.

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REPRESENTATIVE GARDNER, referring to slide 51, asked for more information on the North Slope Contaminated Soil Land Farm.

MR. DEITRICH explained that the land was tilled to allow aerobic oxidation to feed the bugs in the soil, which would metabolize and break down the hydrocarbons. He pointed out that these windrows of soil were a treatment method.

REPRESENTATIVE GARDNER asked if this was experimental or a means to address an accidental spill.

MR. DEITRICH replied that this was a conventional clean up and it was economically efficient for cleaning up small spills.

REPRESENTATIVE GARDNER asked how this was monitored.

MR. DEITRICH replied that it was completely monitored until the soil clean up level indicated it was completely treated.

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CO-CHAIR FEIGE, directing attention to slide 13, asked why the numerous non state-owned response equipment containers on the North Slope were not depicted.

MR. DEITRICH explained that this map did not include the substantial industry or spill cooperatives' equipment.

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REPRESENTATIVE HERRON asked about the upcoming Clean Pacific Conference.

MR. DEITRICH clarified that the next Clean Pacific Conference would be the following year, and that the annual meeting of the task force would be in Alaska during August.

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REPRESENTATIVE HERRON asked if the arctic shipping and trans boundary agreements with British Columbia would be discussed.

MR. DEITRICH replied that currently there were trans-boundary agreements with Canada in the south. He noted that an agreement for the north was being worked out, and, although there was not a boundary agreement, the US Coast Guard was working with Russia on shipping and oil response coordination.

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REPRESENTATIVE FOSTER asked about unreported spills which are eventually reported by a third party.

MR. DEITRICH stated that the regulated entities did a very good job of reporting. He opined that fishing vessels, home heating fuel tanks, and small tank farms were the source of small spills.

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REPRESENTATIVE FOSTER asked what tools were used to encourage spill reports.

MR. DEITRICH replied that there was an attempt to target the source of spills, and, if it was not a regulated source, to provide educational and technical assistance. He directed attention to the home fuel heating tank design on the SPAR web page. He spoke about the clean harbor initiative to encourage spill reports.

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REPRESENTATIVE P. WILSON asked for a list of the top five unregulated problems.

MR. DEITRICH said that he would supply that information which could include the number, volume, and sources of spills.

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The committee took an at-ease from 2:05 p.m. to 2:07 p.m.

Overview: Division of Water Quality

CO-CHAIR SEATON announced that the final order of business would be an overview of the Division of Water Quality.

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LYNN TOMICH KENT, Director, Division of Water, Department of Environmental Conservation, remarked that the Division of Water also has a lot of experienced staff. She related that the mission of the division is to protect water quality and assist communities in improving sanitation conditions. The division addresses "all things water except" the following: the regulation of public drinking water systems, water quantity, or aquatic habitat issues. She then reviewed the structure within the Division of Water, which has two main components of Facilities and Water Quality. The division also has a small administrative group that works on budget issues and manages the division's data systems. The Facilities side of the division has 44 positions. In response to Co-Chair Seaton, Ms. Kent agreed to provide a slide illustrating the division structure with the names of the individuals in the positions.

MS. KENT returned to the Facilities side of the Division of Water, and highlighted that it has the following programs: Municipal Grants and Loans, the Village Safe Water, and Operations Assistance Programs. The core services on the Facilities side is to provide funding and engineering assistance to communities of all sizes throughout the state for drinking water, sewerage, and solid waste facilities. Other core services of the Facilities side are to provide training programs for and certification of water and sewer system operators as well as routine and emergency assistance to rural communities for the operation of their systems.

MS. KENT then turned to the grants portion of the Municipal Grants and Loans Program. She informed the committee that the division's Municipal Grants Program serves first and second class cities, home rule cities, organized boroughs, and eligible private utilities. A percentage of the grant funded portion of a sewer and water systems project is based on the size of the community. Therefore, a community with a population of 10,000 or more is eligible for a project to receive 60 percent of its funds from the grant and the community must provide a 40 percent match to the project. Smaller communities can receive a higher percentage for the grant portion of a project, 85 percent, and the community must match with the remaining 15 percent of the project.

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MS. KENT, in response to Representative P. Wilson, confirmed that the division does an annual solicitation of projects from

the communities, which are then ranked and scored. Ultimately, projects and communities are found in the division's annual budget request.

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MS. KENT, returning to her overview, told the committee that eligible projects for grants are drinking water supply, treatment, distribution, and storage systems; wastewater collection, treatment, and discharge systems; solid waste facilities; and water quality enhancement.

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CO-CHAIR SEATON asked if the division's available funding varies from year to year or is it a formula driven amount.

MS. KENT answered that although the division's funding varies from year-to-year, it's fairly stable. In further response to Co-Chair Seaton, Ms. Kent estimated that the division's budget is approximately \$20 million.

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MS. KENT, returning to her overview, informed the committee that the division manages two loan funds, and thus acts similar to a bank. The division manages a Clean Water Loan Fund and a Drinking Water Loan Fund. Under the Clean Water Loan Fund, eligible projects would be wastewater facilities. The division can pay for the design for collection, treatment, and discharge systems on solid waste facilities, such as landfill closures and landfill collection and treatment systems, and water quality enhancement projects. The Drinking Water Loan Fund will cover the design and construction of drinking water facilities. She noted that there are some private water systems that are eligible to receive loan funds from the department, such systems are economically regulated by the Regulatory Commission of Alaska (RCA). Ms. Kent explained that up to 100 percent of the eligible project costs can be covered by a loan, unlike the grant. Often communities will obtain a grant for a portion of the project and use the loan fund to meet the local match requirement, which is allowed under the loan funds.

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REPRESENTATIVE GARDNER inquired as to what type of private water systems would be economically regulated by the RCA.

MS. KENT related her understanding that systems are those in which their rate structure is overseen by the RCA. In further response to Representative Gardner, Ms. Kent confirmed that there are private water systems that aren't regulated by the RCA and they're referred to as public water systems. She clarified that such systems may be smaller systems that serve an apartment building.

[2:15:18 PM](#)

MS. KENT continued her overview regarding the Division of Water's loan programs. She informed the committee that there are no upfront fees for the division's loan program. The communities can use the funds from the loan as their project proceeds. Therefore, the community doesn't have to receive the entire amount of the loan upfront, and thus the interest is paid [on the amount that is used] as it's used. The benefit to the communities is that the interest rates are very low.

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CO-CHAIR SEATON asked if 100 percent of the loan fund is used every year.

MS. KENT stated that the Drinking Water Loan Fund is fully utilized and the Clean Water Loan is not quite fully utilized. The loan fund has been used much like a checking account, she explained. Therefore, no loans beyond the amount of funds available are made. The division is currently reviewing ideas and methods to achieve better cash-flow management and loan more money. In further response to Co-Chair Seaton, Ms. Kent said that the original funding for both the loan funds was from federal grants. In fact, the division receives an annual federal grant to help capitalize the loan funds. The loan funds also include loan payments from previous loans that have been issued as well as interest on the fund itself.

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REPRESENTATIVE P. WILSON inquired as to how many municipalities applied for the grants but did not receive funding.

MS. KENT said she will provide that information.

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MS. KENT moved on to the Village Safe Water (VSW) Program, which works with rural communities to develop sustainable sanitation facilities. This program provides 100 percent grants to the community for planning, design, and construction of the projects. The funding source for the VSW program is primarily from federal grants from the Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA) Rural Development Program with a 25 percent cost share from the state. In response to Co-Chair Seaton, Ms Kent agreed to provide the committee with the number of applicants and those who are and are not serviced. She then informed the committee that those communities who are eligible under the Village Safe Water Program are unincorporated communities with a population of 25-600 within a two-mile radius, second class cities, and first class cities with fewer than 600 residents. She noted that the VSW program provides more assistance than it would for larger communities. The division provides financial, technical, and engineering assistance to plan, design, and construct facilities. These are sanitation facilities, drinking water systems, and sewage collection, treatment, and disposal as well as washeterias and solid waste management facilities. She turned to the key issues of the Village Safe Water Program, which include a widening gap between critical needs and available funding. Critical needs are those communities that don't have first-time drinking water or sewer systems and those communities that don't have infrastructure that meets current regulatory requirements and may have a potential impact on human health.

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CO-CHAIR SEATON surmised then that [critical needs] aren't renewals or maintenance but rather the provision of facilities for the first time in a community.

MS. KENT replied yes.

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MS. KENT, continuing with her overview, remarked that the widening gap is partly due to decreasing federal funding for the program. Moreover, some of the communities that haven't been served yet are the communities that are hard to serve. For instance, they may be communities that are spread out and for which it's difficult to have a pipe system or they may not have a suitable water source or land for construction. Therefore,

not only are such communities challenging, those hurdles make it more expensive to serve.

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CO-CHAIR SEATON asked if the state offers alternative systems to pipe systems, such as composting toilets.

MS. KENT replied yes.

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REPRESENTATIVE DICK asked if the division looks into the future of a community, that is the population trend of the community, when it decides to construct a water system. He noted that in his district there is a village in which a \$1.7 million washeteria was constructed and the next year the school closed. That village barely has the funds to purchase the fuel for the washeteria. He noted that the school closure was fairly predictable.

MS. KENT said that is one of the key issues for the Village Safe Water Program. The division works directly with the community to evaluate systems the community has the capability to operate and maintain over time. She highlighted that a community doesn't receive funds until the division has evaluated the community's administrative structure, a capacity assessment, in order to ensure whether it has the infrastructure to manage a particular utility. The division reviews the "use-ability" of a type of facility in a community. Therefore, every community that wants pipes will get them. Still, the division works closely with the villages to select a system. As much as possible, the division tries to serve the community and homes that are there while performing some forecasting.

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REPRESENTATIVE FOSTER directed attention to the chart entitled "Critical Needs -vs- Available Funding" and underscored the difference in needs, which totals \$648 million, versus funding, which totals \$60 million. He highlighted that the funding amounts to one-tenth of the present need, which is increasing. He inquired as to the reasoning behind the increase in the critical needs.

MS. KENT pointed out that inflation is in play. Therefore, when the price of fuel spiked, construction costs in rural Alaska

increased as well. She explained that when the division defines those critical needs of a community, the division isn't trying to decide what system the community needs. Many of the facilities are old and as drinking water systems are designed and constructed, they have to comply with all the new rules and thus the cost of systems increase because of that as well. Therefore, there are many factors at play and causing the gap to widen, which would occur even with steady state funding.

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REPRESENTATIVE HERRON recalled that the Village Safe Water agency used to be a one-stop shop, whereas now it's the USDA and the consortium as well as the Village Safe Water agency. He asked if that's exacerbated the situation or made it easy.

MS. KENT explained that two different funding sources available and two organizations, DEC and the Alaska Native Tribal Health Consortium, work on the project. Ms. Kent opined that it works well and isn't exacerbating the problem. In further response to Representative Herron, Ms. Kent clarified that the source of the funding coming from two different agencies isn't that difficult.

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MS. KENT, in response to Representative Wilson, agreed to provide information regarding the status/progress of the needs.

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MS. KENT moved on to the Operations Assistance Program. She informed the committee that different classes of drinking water and wastewater systems have developed based on the complexity of operating them. Further, education and experience requirements have been designed in order to ensure that the operators have the skill set necessary to operate the systems in a safe manner while providing safe drinking water and sewage disposal. Part of the aforementioned program includes training courses for operators. The division developed and administers tests and the operators are certified. When those facilities obtain permits from the division, those permits require that the facility use an operator certified at the correct level for the particular facility. Ms. Kent further informed the committee that the division operates a Remote Maintenance Worker (RMW) Program, which helps develop the capacity of rural Alaskans to operate their own facilities. These workers, she highlighted, help safeguard the investment in rural Alaska by ensuring the proper

maintenance and operation of the facilities. There are 15 RMWs throughout the state, of which 13 are employees of 7 regional health corporations that received DEC grants to pay for those RMWs, and 2 are DEC employees. She characterized these [RMWs] as the circuit riders who travel to villages to provide "over-the-shoulder" assistance to facility operators as well as emergency assistance for breakdowns and such. Ms. Kent referred to these individuals as "the heroes of rural Alaska." Further, the list of communities these individuals served in the last few months as related on the slide entitled "Remote Maintenance Workers" is fairly impressive.

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CO-CHAIR SEATON relayed that the Village Safe Water website specifies the remaining needs. However, the website also says: "This assessment does not include the needs of 65 rural Alaska villages that are non Native." He then requested information on those villages that aren't included and what their needs entail.

MS. KENT agreed to do so.

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REPRESENTATIVE FOSTER related his assumption that some of the RMWs went to Savoonga during last month's power outage.

MS. KENT said that she was unsure whether the RMWs actually went to Savoonga or provided remote assistance as they do both. She offered to check on that.

[2:31:38 PM](#)

REPRESENTATIVE P. WILSON asked if the division provides grants to the non Native villages.

MS. KENT explained that eligibility is not based on whether a community is Native or non Native, but rather is based on the earlier mentioned criteria. Eligible communities must be an unincorporated community with a population of 25-600 people residing within a two-mile radius, a second class city, or a first class city with a population no more than 600 people.

[2:32:21 PM](#)

CO-CHAIR SEATON recalled that a few years ago there was an audit with regard to the management of grants. He asked if that's been resolved.

MS. KENT responded that recent audits of the Village Safe Water Program have found no exceptions. She opined that fairly good improvements have been made in the program's procedures.

[2:33:06 PM](#)

MS. KENT, returning to the overview, directed attention to the slide entitled "Division of Water - Water Quality," which lists the following five Water Quality Programs: Water Quality Standards, Assessment and Restoration; Wastewater Discharge Permitting; Compliance and Enforcement; Cruise Ship Regulatory Program; and Water Quality Monitoring. The core services of water quality include the establishment of protective standards for water quality; identify and restore polluted waters; issue wastewater discharge permits to facilities that discharge contaminants; ensure facility compliance with permits; provide community assistance for water quality protection; and monitor water quality and provide public access to that data.

[2:33:54 PM](#)

CO-CHAIR SEATON requested that Ms. Kent bring the committee up to date with regard to the copper standard for aquatic life.

[2:34:18 PM](#)

MS. KENT explained that when the division sets water quality standards, it's done by regulation. The standards consist of two standards. One standard is designated uses, which is the types of uses of water the division protects water for. Designated uses include protection for drinking water, seafood processing and other industrial uses, swimming, non contact recreation, as well as fish and other wildlife. The standards apply to the water body and are measures of how clean water has to be to protect the aforementioned uses.

[2:35:25 PM](#)

MS. KENT explained that the second part of the standards is the criteria. For each use and contaminant, the division sets a level that is safe for use. Therefore, the criteria will include numeric standards for [contaminants] such as copper for the protection of aquatic life and human health. She noted that

the numeric standards for a contaminant may be different for different uses of the water. She also noted that the division has narrative criteria for attributes that aren't readily measured, such as "may not cause a visible sheen on the surface of the water." Alaska's water quality standards are adopted by DEC in regulation and have to be approved by the EPA prior to the state using them for Clean Water Act purposes. The standards are used to help set permit limits, identify when a water body might be polluted, and help measure when a water body has been cleaned and no longer considered polluted. Ms. Kent informed the committee that the division has a couple of water quality standards revisions in progress: some changes have been made to the residue criteria and working toward final adoption of those regulations, and there are pending mixing zone regulations revisions for which the division is awaiting EPA approval. She noted that it's not unusual for the EPA to take a few years to approve standards revisions. In response to Co-Chair Seaton, Ms. Kent related that the water quality standards review and approval process for EPA is becoming more complex. In fact, the EPA has consultation requirements with the U.S. Fish & Wildlife Service and the National Oceanic & Atmospheric Association (NOAA). Therefore, the EPA is dependent upon third party agencies to review their work in approving the division's work. At this point, the division has been told that EPA staff is assigned to the mixing zone revisions and are working on it.

[2:37:59 PM](#)

REPRESENTATIVE KAWASAKI asked if any water quality standards adopted by DEC are higher than the minimum set by the EPA.

MS. KENT answered that almost all of DEC's standards are identical to those set by the EPA because the [division] isn't funded to do the host of laboratory studies. However, she mentioned that DEC has a few standards, including petroleum, which are more stringent than the EPA standards.

[2:38:31 PM](#)

CO-CHAIR SEATON related his understanding that the state is required to have water quality standards that are at least as strict as the federal requirements.

MS. KENT replied yes, adding that the state is required to do so apart from the primacy for the permitting program.

[2:38:59 PM](#)

REPRESENTATIVE HERRON asked if the division is able to discuss the regulations with EPA.

MS. KENT answered that DEC has been fairly adamant in working with EPA and moving them along. This long period of time for review and approval of water quality standards isn't limited to region 10 of EPA. She related her understanding that states across the country have challenges with EPA moving through that review and approval process in a timely fashion. She acknowledged that it's very frustrating.

[2:39:44 PM](#)

MS. KENT, in response to Representative Munoz, explained that currently the state adopts a change in regulation and then it's submitted to the EPA for review and approval. She said she wasn't aware of other states in which the legislature has set water quality standards. If there is a statute established for a water quality standard, she presumed that the standard would also have to go through some sort of review and approval process through the EPA.

[2:40:39 PM](#)

MS. KENT returned to the slide entitled "Water Quality Standards - Issues." She informed the committee that the Clean Water Act requires the state to review all of its water quality standards every three years, which is referred to as the triennial review. This review invites the public to let the division know if there is new science or information that might cause review of a particular standard and determine whether it should be changed. The start of that triennial review is coming up. The division, she related, is always reviewing its standards and working on what might need to be changed. The division believes that there are a few things it should do over the next three years, including anti-degradation, which is a code term for a Clean Water Act requirement that states may not allow degradation of water quality except under some very narrow circumstances. Therefore, DEC has adopted regulation policy that mirrors the federal policy. Furthermore, DEC has adopted interim procedures regarding how the anti-degradation policy will be implemented. She noted that during the next triennial review, the plan is to develop more robust implementation procedures for how that anti-degradation policy will be implemented in permitting and other DEC actions.

2:42:09 PM

MS. KENT moved on to the copper criteria, which is based on EPA's copper standards. There was much interest in copper criteria in a previous triennial review. Therefore, DEC performed a full scientific literature review on copper to determine what kinds of scientific information would cause DEC to change its copper criteria. That review found that there are no lethality effects and growth effects on salmon due to copper that is at or below existing standards, and thus no changes were made to the copper criteria.

2:43:13 PM

REPRESENTATIVE HERRON highlighted that there are collateral elements around copper, and thus he asked if [the review] included those elements as well.

MS. KENT responded that DEC was just reviewing copper. However, the department has learned that there are some things, such as dissolved organic carbon, that may affect the toxicity of copper.

2:43:46 PM

MS. KENT informed the committee that DEC sponsored a copper session at last year's Alaska Forum on the Environment in order to share what it knows about copper and obtain other information on copper. Due of the level of interest in copper as well as recent studies that show some behavioral effects on salmon at very low concentrations of copper, it's very likely that there'll be another session on copper at the upcoming triennial review.

2:44:12 PM

CO-CHAIR FEIGE asked if there are other naturally occurring compounds that present problems specifically in Alaska in terms of meeting certain EPA standards.

MS. KENT replied yes, explaining that in some of Alaska's water bodies there are natural conditions of a substance that are above the state's water quality standard. There is a regulation that allows the aforementioned to be the prevailing standard if it's truly the natural condition. "We don't try to regulate Mother Nature," she stated.

[2:45:08 PM](#)

MS. KENT, in response to Co-Chair Seaton, related that there was a presentation on studies performed in the Pacific Northwest regarding behavioral response to copper and whether salmon will avoid a predator in the presence of copper. The finding was that there was a reduced response from the salmon [when in the presence of copper] and thus the salmon is more susceptible to predation. In further response to Co-Chair Seaton, Ms. Kent related that DEC will likely review any new literature that is available as DEC is unlikely to fund its own independent studies.

[2:46:18 PM](#)

MS. KENT, returning to the overview, directed the committee's attention to the slide entitled "Wastewater Discharge Permitting." Any discharge of liquid or solid waste to the land, water, or subsurface requires a permit from DEC. Permittees for wastewater discharge permits include: the timber industry, mining, oil and gas, seafood processing, construction, and domestic sewage treatment.

[2:46:59 PM](#)

REPRESENTATIVE KAWASAKI asked if there are any permits for coal, particularly when ash is used as backfill, specifically with regard to the water tables.

MS. KENT responded that she believes [coal] is regulated by the solid waste program, for which the regulations are designed to protect water as well.

[2:47:25 PM](#)

MS. KENT moved on to the topic of discharges to the waters of the United States, which refers to surface waters. Surface waters require a National Pollutant Discharge Elimination System (NPDES) permit. Alaska as well as 46 other states has assumed the authority to implement a permitting program that mirrors the NPDES program, which is the Alaska Pollutant Discharge Elimination System (APDES). The [DEC] has taken over the permitting program in phases, based on the type of industrial or domestic discharge. At this point, phases 1, 2, and 3 have been transferred to the state, which includes domestic wastewater, timber and seafood industries; federal facilities, stormwater, pretreatment program, miscellaneous industrial, and the mining

industry. The final phase is primarily oil and gas. The EPA does and always will retain responsibility for a few small groups of permits in the state because the Clean Water Act requires such.

[2:48:41 PM](#)

CO-CHAIR SEATON inquired as to the amount of staff working on the permits and the turnaround time for the permits.

MS. KENT told the committee that the staffing for DEC's program is more robust than what the EPA had when it ran the permitting program. Although DEC is issuing permits as quickly as the EPA did, the desire is to issue them a lot faster.

[2:49:41 PM](#)

MS. KENT, continuing with the overview, referred to the slide entitled "Wastewater Discharge Permitting- public/tribal involvement" and remarked that the permitting process is very transparent and more inclusive than the program EPA was running. She then informed the committee that the division has issued 637 general permit authorizations, 3 APDES individual permits, and 25 permits in various stages of development or near completion. As is the case with all major environmental laws, the Clean Water Act is, in part, dependent upon permittees self-monitoring and -reporting to the division. The department reviews the monitoring data, inspects facilities, at times takes its own samples, and when necessary takes enforcement actions. In response to Co-Chair Seaton, the discharge monitoring reports that are self-reported by the facilities are available on a public website.

[2:51:43 PM](#)

MS. KENT, referring to the slide entitled "Compliance Inspections," explained that DEC's inspection goals follow the EPA's inspection goals for the country. The department reviews major facilities once every two years, whereas it reviews the non major facilities once during the permit cycle that is every five years. The department also tries to review 5-10 percent of the stormwater facilities based on the size of the construction sites. Furthermore, DEC performs complaint-driven inspections. Returning to her presentation, Ms. Kent informed the committee that DEC's goal last year was to conduct 120 inspections, but it actually conducted 140 inspections. Twenty-two notices of

violation were issued and one compliance order by consent was performed.

[2:52:40 PM](#)

MS. KENT moved on to Alaska's cruise ship regulatory program, which is the first in the nation and may still be the only such program in the nation. In 2010, 28 cruise ships registered to visit Alaska. The Ocean Ranger Program is the only such program in the nation. Under the Ocean Ranger Program, vessels that enter Alaska's waters are required to have an ocean ranger on board. The ocean ranger's job is to observe compliance with both state and federal health, safety, and environmental rules. The Ocean Ranger Program was established by law in 2006 and the program is funded with a \$4.00 per head passenger fee. The fee brings in between \$3.6-\$4 million per year depending upon the number of passengers. In 2010, 90 percent of the vessels had ocean rangers on board for their entire voyage in Alaska. The remaining 10 percent of vessels were either visited by ocean rangers or DEC when in port. Almost 2,000 daily reports are provided by the ocean rangers. Ms. Kent told the committee that 5 of the 21 ocean rangers deployed last year were Alaskans. The department is working with the Department of Labor & Workforce Development regarding more training opportunities in order to increase the number of ocean rangers who are Alaskans.

[2:54:10 PM](#)

REPRESENTATIVE MUNOZ inquired as to the training requirements for the ocean rangers.

MS. KENT answered that an ocean ranger has to be a U.S. Coast Guard licensed marine engineer or have a degree from a maritime academy. She noted that the marine engineer requirements include sea time. She also noted that it's a challenge to find Alaskans who want to do this part-time work.

[2:54:37 PM](#)

REPRESENTATIVE P. WILSON inquired as to why the Ocean Ranger Program uses the nationwide marine [union] rather than the Alaska oriented marine [union].

MS. KENT explained that DEC contracts out management of the Ocean Ranger Program. Therefore, the contractor has the opportunity to work with either marine union. She said she didn't know that there would be any better Alaska hire rates by

using the Alaska union rather than the national union, particular since it's a seasonal position.

REPRESENTATIVE P. WILSON emphasized that she didn't like the fact that the ocean rangers really didn't have a presence in the state. She acknowledged that there's a presence in Anchorage, but it's a different division. Therefore, she suggested that the legislature may need to review the matter further.

[2:57:09 PM](#)

CO-CHAIR SEATON asked if the problem in which the contractor wasn't accepting Alaska engineering licenses. He recalled that the contractor was only accepting licenses that were unlimited, which is problematic since those in Alaska are mainly tug engineers.

MS. KENT agreed to provide information on that matter to the committee.

[2:57:47 PM](#)

MS. KENT highlighted that the Division of Water does perform the cruise ship air emissions, opacity readings. Those readings are done with the department's certified readers as well as contractors.

[2:58:09 PM](#)

CO-CHAIR SEATON inquired as to when the next Science Advisory Panel will meet.

MS. KENT explained that the Science Advisory Panel was established by the legislature to help the division review the technologies for wastewater discharge from cruise ships. The panel met three times in 2010. The panel consists of experts from around the world. She recalled that the next meeting of the panel will be a teleconference in the next couple of weeks.

[2:59:01 PM](#)

CO-CHAIR SEATON remarked that the meeting would likely be of interest to legislators, and thus he encouraged her to forward the details to the committee.

[2:59:13 PM](#)

CO-CHAIR SEATON related a concern that he's heard that the requirement for best available technology isn't being applied across all cruise ships.

MS. KENT explained that by statute the cruise ships have a higher threshold for their wastewater discharge permits. Most wastewater discharges in Alaska are allowed an opportunity, via permitting, to have a permitted mixing zone. Therefore, what the cruise ship discharges after treatment that doesn't get them down to the water quality standards allows the cruise ship to discharge [wastewater] that has contaminants a bit above the water quality standards, knowing that in the mixing zone it will dilute with the surface water and all the standards will be met and the designated uses will be protected at the edge of the mixing zone. The law is headed toward requiring all cruise ships to meet the water quality standards at the point of discharge. The vessels that discharge in Alaska are meeting all of the water quality standards at the point of discharge, save the following substances: ammonia, copper, nickel, and zinc. The Science Advisory Panel, she commented, was established to review emerging new technologies that will allow the elimination of the aforementioned contaminants from the wastewater prior to discharging in Alaska waters. Since the technology isn't quite at that point, the permit allows those contaminants to be discharged at a bit higher level than the set water quality standards. In further response to Co-Chair Seaton, Ms. Kent explained that all vessels operating and discharging in Alaska have systems for which some do better than others for the aforementioned four substances while other systems address other substances. There is no one system that consistently meets the water quality standards for all four of the substances. She noted that [the systems] take into their wastewater systems different waste streams and discharge different waste streams, and therefore the data has to be reviewed carefully. For instance, "a vessel with a certain kind of treatment system that looks like it might be meeting all the standards may be only treating gray water and not both gray water and black water." Therefore, the panel is reviewing the data.

[3:02:46 PM](#)

REPRESENTATIVE GARDNER asked if the federal standards are related to the point of discharge or the mixing zone.

MS. KENT answered that the federal standards relate to the water body itself. The federal standards are used to set the limits in the permit, but a permit will often allow a discharge above

the standards because there will be dilution and no negative impact on the water body as a whole.

[3:03:19 PM](#)

MS. KENT, continuing her overview, informed the committee that DEC has a small non-point source program. She explained that a non-point source is something that doesn't come from a pipe, but can enter a water body such as animal waste, park runoff, or fertilizers from yards. The division works with communities to try to avoid such problems "because non-point source problems are what are causing polluted waters today; it's really not permitted facilities anymore." She said that part of the non-point source program is small grants to help us meet state priorities for water quality and perform outreach. Ms. Kent related that the division monitors water quality and reports those findings on the web site. She pointed out that although Alaska has half the nation's waters, it doesn't have half the nation's funding for water quality monitoring. The division has to slowly work around the state collecting baseline data. The map entitled "AKMAP" illustrates that the division is collecting baseline data as funding is available. She highlighted that the data has specific objectives, is collected under a quality assurance plan, and reported on the division's website. The division also produces a biannual report of the health of Alaska's waters in which the public is informed of the polluted waters, recovering waters, and recovered waters. The 2010 Integrated Water Quality Monitoring and Assessment report is on the division's website.

[3:05:02 PM](#)

CO-CHAIR SEATON thanked the division for its presentation.

[3:05:24 PM](#)

ADJOURNMENT

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 3:05 p.m.