



Department of Environmental Conservation

Senate Resources Overview
Commissioner Larry Hartig
January 30, 2013



DEC's Mission

Protect human health
and the environment.





Divisions

- Administration
- Environmental Health
- Air Quality
- Spill Prevention and Response
- Water



Division of Air Quality

Components:

- Director's Office
- Air Quality

Director: Alice Edwards

Challenges:

- Fairbanks Air Quality
- Declining Federal Funding



Air Permits Program

- Ensure that air emissions from industrial operations in the state do not create unhealthy air
 - Authorize construction of new and modified facilities (Construction Permits and minor permits)
 - Establish compliance monitoring for existing facilities (Title V Operating Permits)
 - Conduct compliance assurance inspections and follow up on permit deviations
- Maintain an on-going process for improving consistency and timeliness of permitting
- Respond to general AQ complaints and concerns





Fairbanks Fine Particulate Matter (PM_{2.5})



- Fairbanks/North Pole area exceeds the 24-hour PM_{2.5} ambient air quality standard
- Air quality attainment plan is past due to EPA
- Clean Air Act has serious consequences if fail to plan or implement a plan
- Plan and control options are controversial in community
 - Non-attainment area is large in size
 - Multiple sources of PM_{2.5} exist
 - Home heating sources (wood and coal) are important contributors



On-going Permit Streamlining and Process Improvement

- Goal – Improve consistency and timeliness of permitting
 - Maintain high quality, legally defensible permits
 - Improve predictability by standardizing processes and permit requirements
- Quality Management System
 - enhance consistency
 - reduce disruptions from staff turnover
- Operating Permits
 - Standard conditions to improve efficiency
 - Meetings with stakeholders to discuss issues and solutions
- Construction Permits
 - Pre-application assistance and project scheduling
 - Use of contractor assistance to handle workload fluctuations
- Develop Partnerships – North Slope Assessment
 - Assessing data sources, working to fill data gaps, improve models

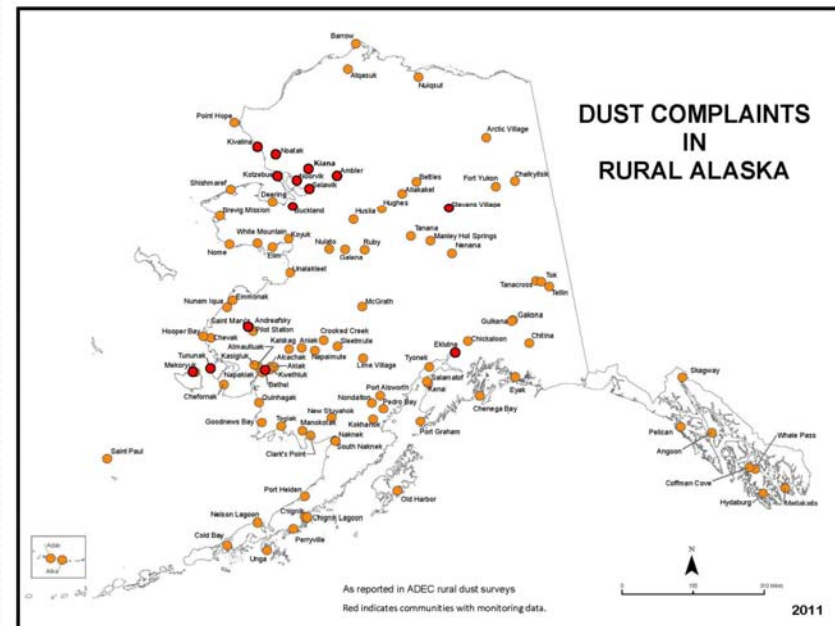


Rural Alaska Air Quality Concerns



- Dust
- Wood smoke
- Open Burning

Widespread impacts throughout the state make it difficult to effectively respond to the needs of communities





New and Revised Federal Standards and Rules

- Clean Air Act air quality standards and rules are being frequently updated by EPA
 - Can be difficult to keep up with the reviews of EPA proposals
 - Typical focus for comments is on technical concerns and Alaska specific issues that arise
 - Program must adjust as needed to address final rules



Engine Standards



Lead in Aviation Gasoline



1-Hour Nitrogen Dioxide
National Ambient Air
Quality Standard



Division of Environmental Health

Components:

- Director's Office
- Food Safety & Sanitation
- Laboratory Services
- Drinking Water
- Solid Waste Management

Also:

- Building Maintenance & Operations

Acting Director: Elaine
Busse Floyd

Challenges:

- Drinking Water EPA Rule Implementation
- High Risk Food Safety Inspections
- Unique Laboratory Technology & Equipment Needs



Drinking Water and DEC -What do we do?

- ▶ Maintain state primacy for regulating public drinking water systems
- ▶ Enforce public water system (PWS) monitoring requirements for drinking water contaminants
- ▶ Review Construction, installation and operation plans and enforce engineering standards for PWS to protect public health and meet Safe Drinking Water Act requirements
- ▶ Assist PWS owners in identifying the sources of their drinking water and help them develop strategies to effectively protect those sources from contamination
- ▶ Provide Emergency Response to help protect drinking water sources
- ▶ Provide technical and compliance assistance to PWS owners and operators, and the public





Drinking Water and DEC

Successes and Challenges

- 61 employees, 5 offices
- Increasing complexity of federal rules for both engineering and compliance monitoring
- Limited to no interaction with most state regulated systems due to lack of funding
- Empowered staff to work with water system owners and operators using a multimedia approach to help them achieve and also stay in compliance:
 - Educated consulting engineers who design water treatment systems & complete inspections and sanitary surveys
 - Mentored and network in partnership with Technical Assistance Providers Group
 - Intensive community visits and public outreach





Pesticide Control and DEC

What do we do?

- Issue permits for applications to water or aerial, and on certain state or local applications
- Conduct inspections to make sure pesticide applications comply with the pesticide regulations and worker protection standards
- Conduct inspections of pesticide distributors
- Register and monitor the distribution, sale, use, and storage of pesticides - 5,000 registered products
- Train and certify pesticide applicators
- Review pesticides for potential risks to water





Pesticide Control and DEC

Successes and Challenges

- Implementing integrated pest management for better management of invasive species
- Implementing changes to address difficulty for DOT, DNR, and AK RR to obtain permits
- Increasing expectations for commercial applicators
- Product registration on-line





Solid Waste Program and DEC Basics

- 15 employees, 3 offices
- 100% of landfills accepting 5 tons or more a day (Class I and Class II) are permitted. 23 total
- 33.5% of rural landfills (less than 5 tons) are permitted. 188 total
- 100% of industrial landfills in Alaska are permitted. 35 total
- 100% of industrial treatment facilities are permitted. 11 total





Solid Waste Program and DEC

Rural Landfill Challenges and Successes

- ▶ Proper village landfill management is difficult due to limited resources
- ▶ Compliance improvement is a significant focus of the program
- ▶ Increased outreach and technical assistance has resulted in increased permit percentage – increase from 22% in 2011 to 33.5% in 2013
- ▶ Implementing regulations in 2013 that will simplify the permit application for village landfills, increasing the number of permitted facilities and improving operations





Food Safety and Sanitation

What We Do

- Establish standards; permit, inspect and enforce standards for food processing and food service facilities
- Establish standards and inspect on a complaint basis certain public facilities for sanitation
- Provide education and training on the safe handling of food





State Veterinarian

What do we do?

- Permit, inspect, monitor and provide technical assistance to dairy and livestock producers
- Permit and monitor the movement of animals and animal biological products (vaccines, etc)
- Surveillance and control of animal diseases
- Respond to animal health emergencies
- Collect fish samples statewide and evaluate them for contaminants





Environmental Health Laboratory

What we do

- Inspect, evaluate, and certify 88 private laboratories to perform compliance/regulatory testing for drinking water, contaminated sites, and dairy.
- Provide laboratory testing service for assessment of risks to public health, welfare and the environment:
 - food safety (manufactured food, shellfish, produce, and food borne illness investigations)
 - drinking water
 - animal health (domestic and wild animals)
 - dairy
 - contaminant monitoring (fish tissue monitoring)
 - air filters
- Provide technical assistance to other programs regarding the acquisition, facilitation, interpretation of analytical data.
- Performed 61,967 testing processes in SFY 2012
- Extensive federal certifications from EPA, FDA, USDA that include 7 different federal programs





Tsunami Marine Debris





Division of Spill Prevention & Response

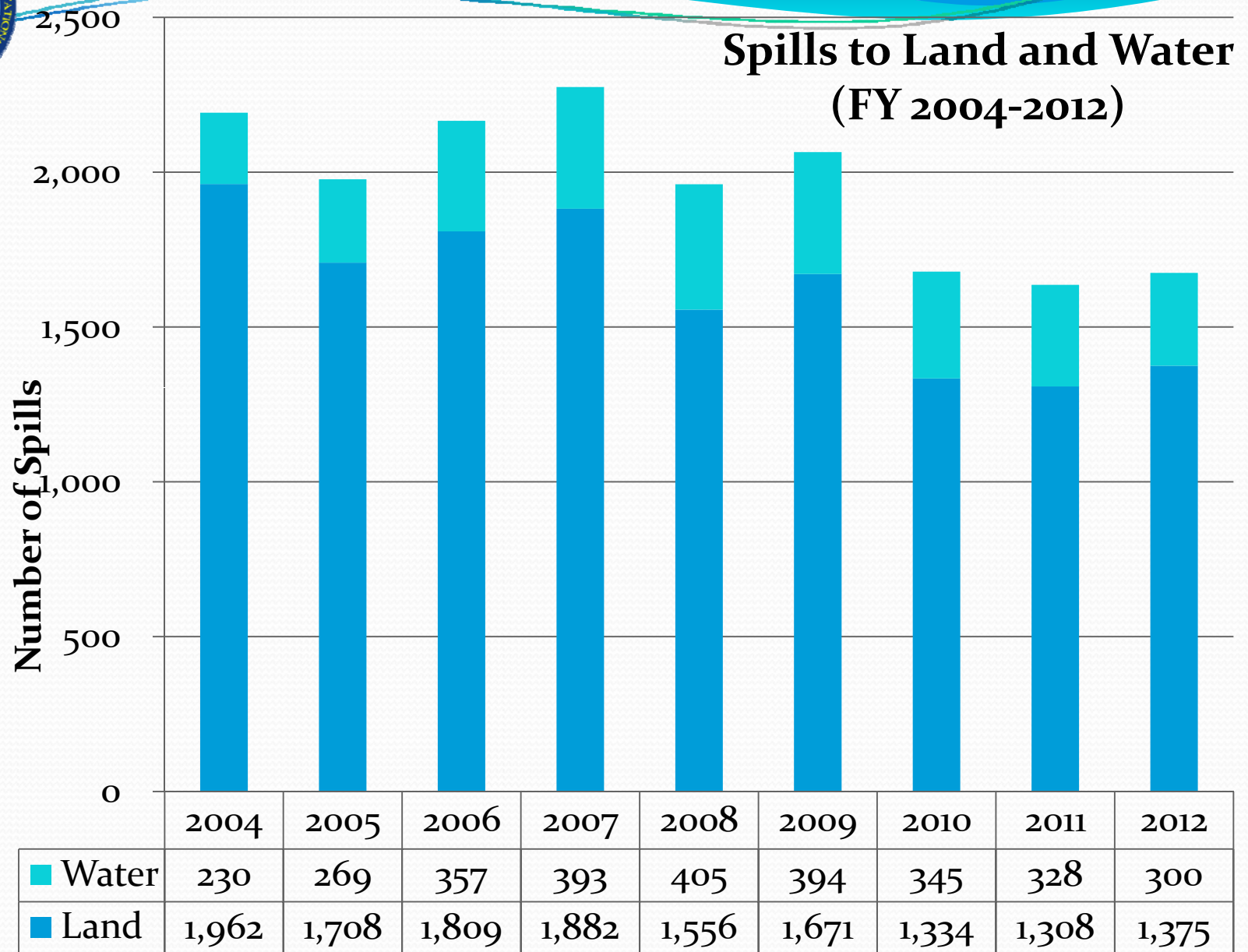
Components:

- Director's Office
- Industry Preparedness & Pipeline Operations
- Prevention & Emergency Response
- Contaminated Sites Program
- Response Fund Administration

Director: Larry Dietrick

Challenges:

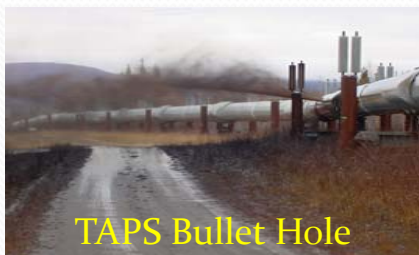
- Declining Prevention Account Balance
- Increasing Natural Resource Activity



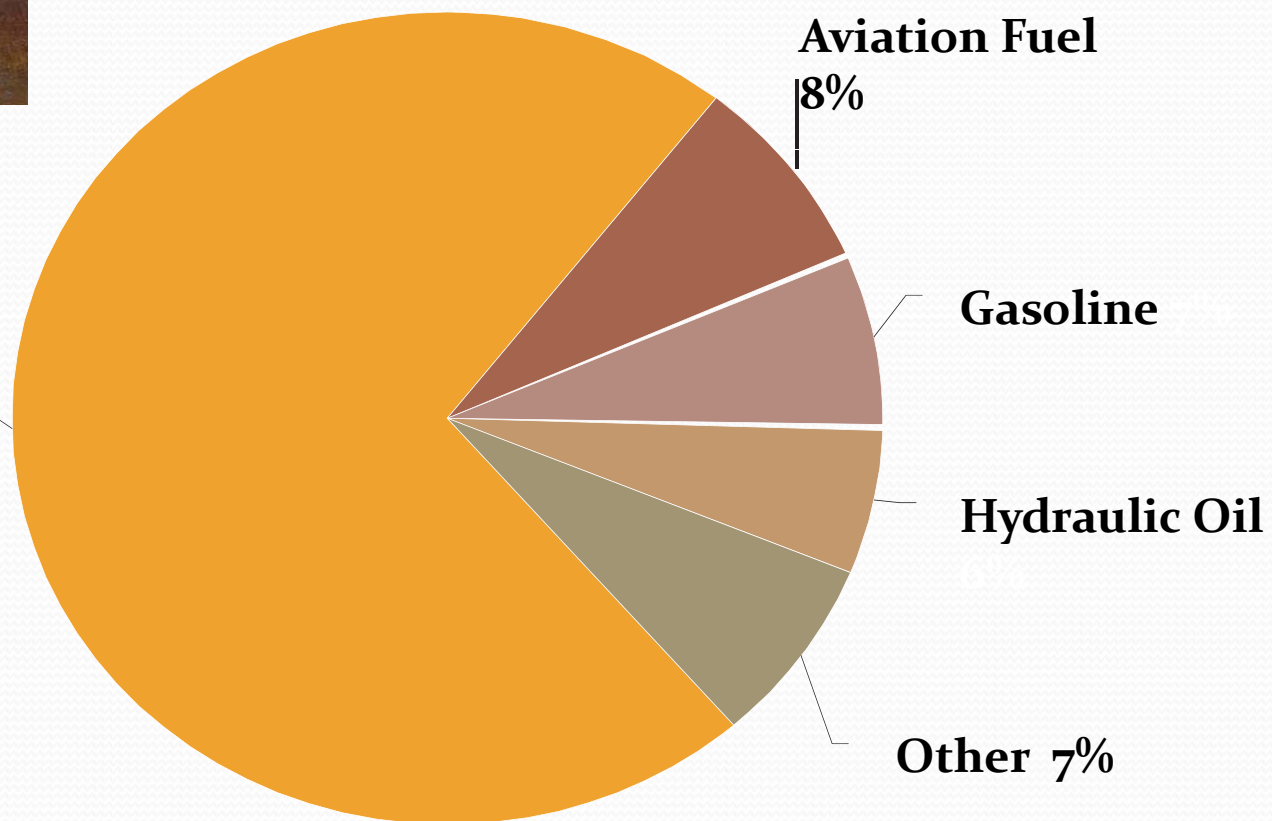


Diesel
72%

Volume Released by Product

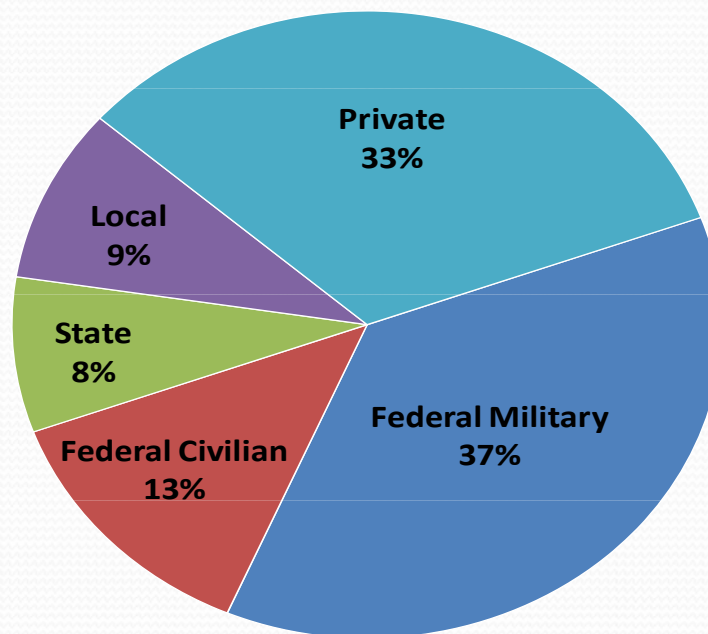
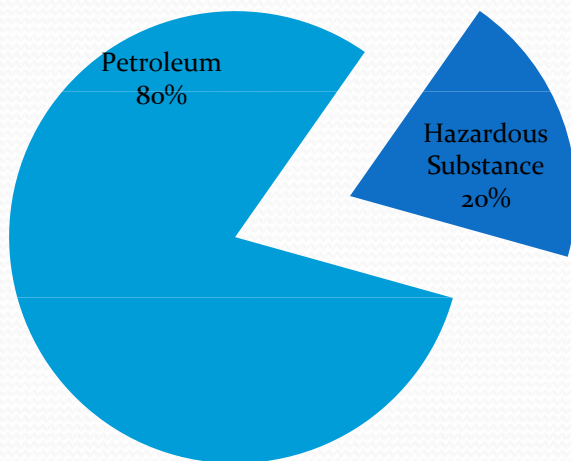


Diesel 72%





Contaminate Type and Ownership





Prevention and Emergency Response Responsibilities

- **Emergency Oil Spill Response**
- **Statewide Hazmat Response**
 - **Drills and Exercises**
- **Government Oil Spill Response Plans**
 - **Local Spill Response Agreements**
 - **Disaster Response Coordination**



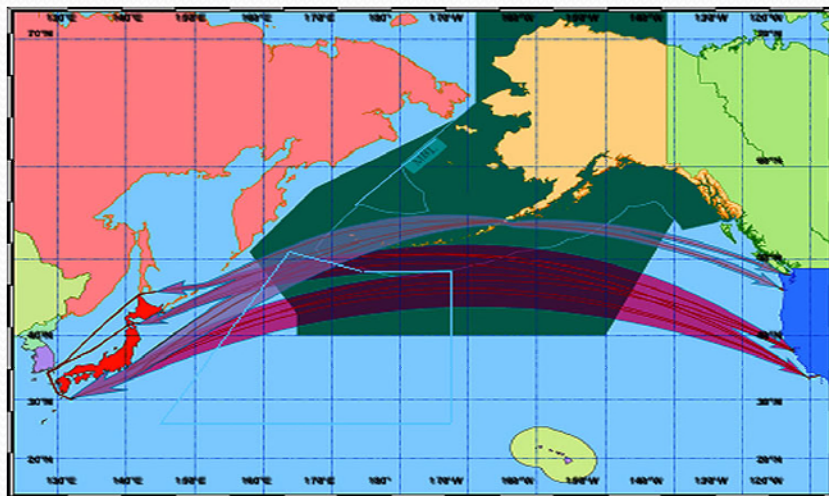
Local Spill Response Agreements and Equipment





Shipping Regions

Great Circle Shipping Routes



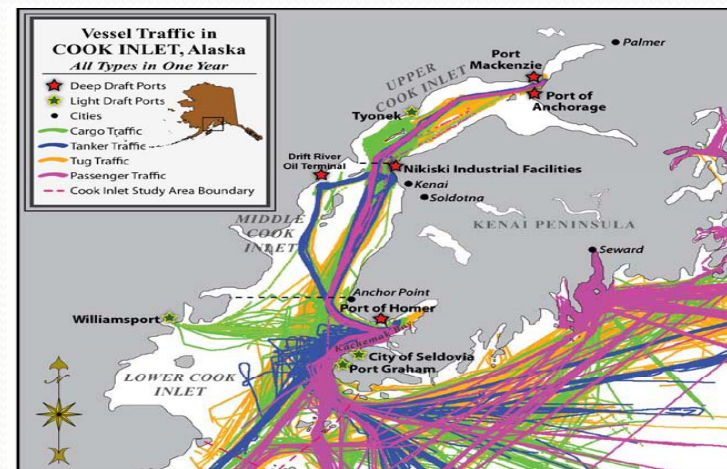
Arctic Shipping Routes



Southeast Shipping Region

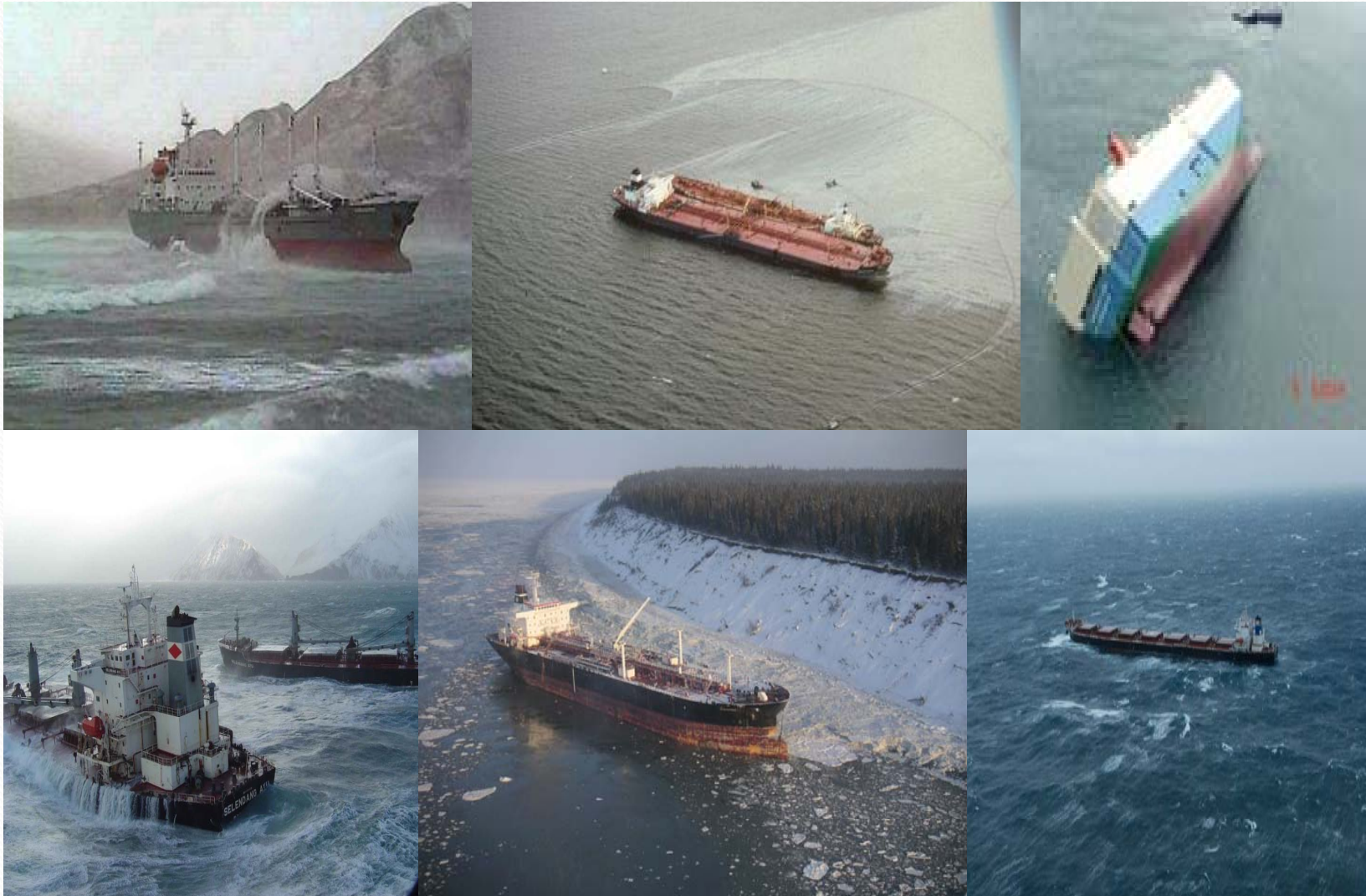


Cook Inlet Shipping Region





Maritime Casualties





Alaska Vessel Rescue System



Drift Groundings



*AMVER- Automated Mutual-Assistance Vessel Rescue System



Industry Preparedness Responsibilities

- Oil spill contingency plans
- Spill drills
- Inspections
- Financial Responsibility
- Oil spill primary response action contractors
- Best available technology



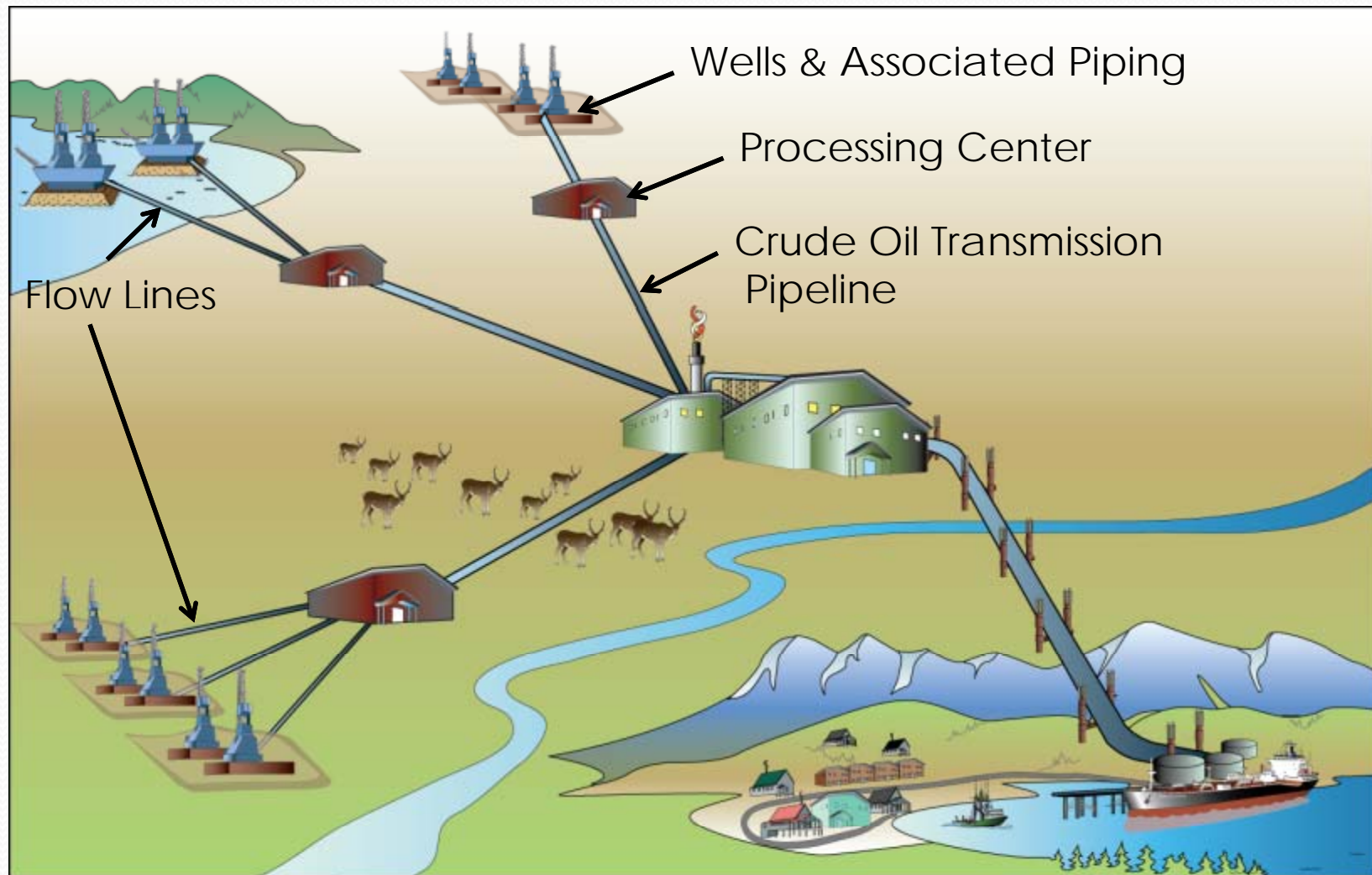


Aging Infrastructure Inspection and Replacement





Pipelines of Interest





Contaminated Sites Responsibilities

- Contaminated site management
- Cleanup of state, federal and private contaminated sites
 - Areawide cleanups
 - Reuse and redevelopment
 - Risk-based cleanups
 - Cleanup standards



Response Fund Administration Program

Mission

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





Response Fund Administration

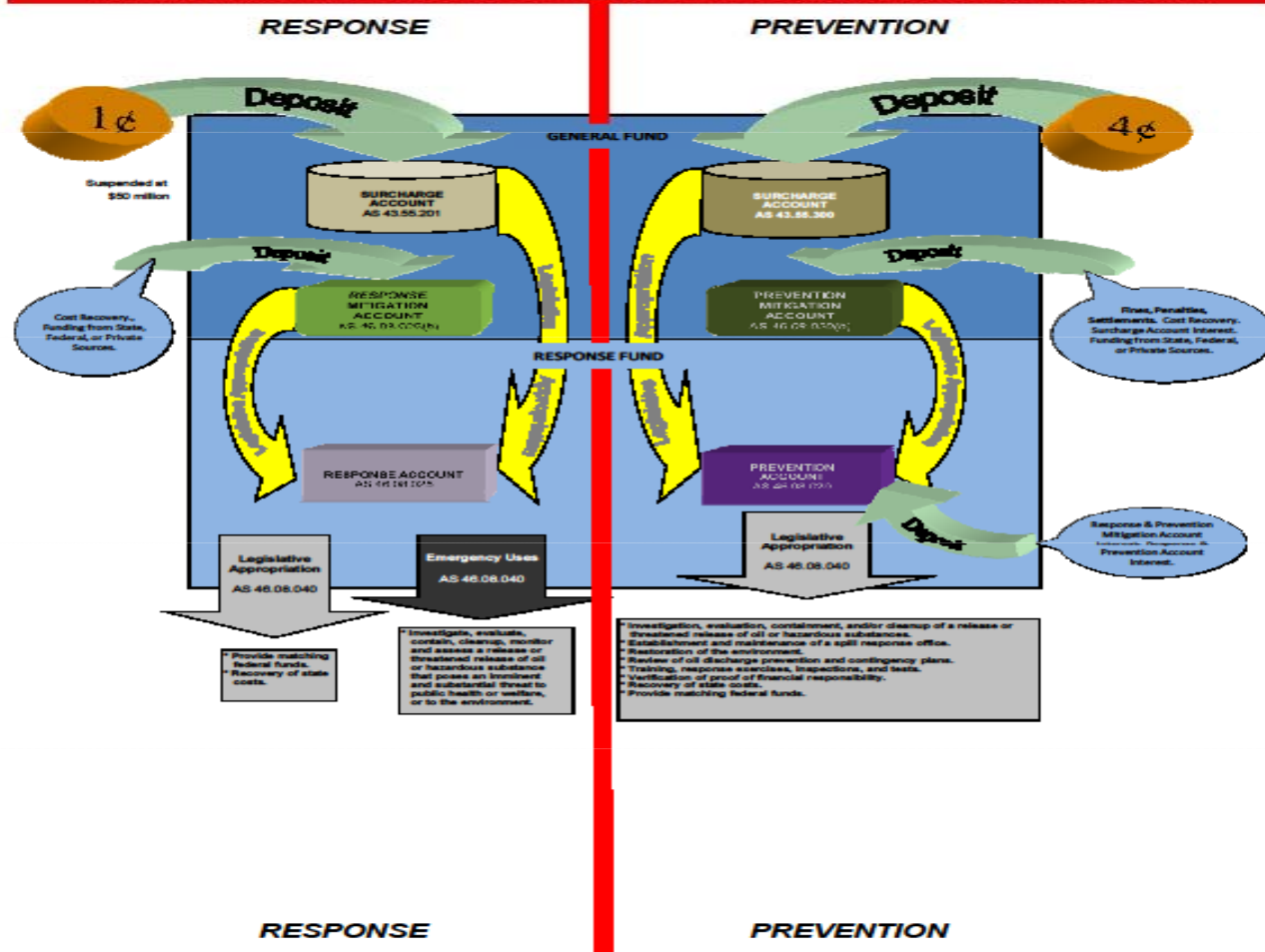
Responsibilities

- Response Fund Management
 - Cost recovery
 - Contract Management
- Emergency response – Finance Section
 - Biennial Response Fund Report
- Information and database management



Response Fund

Oil & Hazardous Substance Release Prevention and Response Fund



Revised 11/1/2010



SPAR Initiatives

- **Arctic Council - Arctic Nation Response Agreement and Prevention Project**
- **USCG Incident Specific Preparedness Review of the Macondo Spill**
- **Pacific Northwest Economic Region Arctic Caucus Oil Spill Task Force**
- **Northern Waters Task Force**
- **Aleutian Islands Risk Assessment, Bering Strait Port Access Route Study, Southeast Vessel Traffic Study, Cook Inlet Risk Assessment**
- **Pacific States/British Columbia Oil Spill Task Force**
- **Pipeline Leak Detection Best Available Technology Conference**
- **Arctic Pipeline Technology Forum**
- **Emergency Towing System**
- **New contaminants of concern**
- **Vapor Intrusion**



Division of Water

Components:

- Water Quality
- Facility Construction

Director: Michelle Bonnet Hale

Challenges:

- Continuing to build APDES permitting program
- Sustaining the Village Safe Water Program



Division of Water

Water Quality Programs

- Wastewater Discharge Permitting
- Cruise Ship
- Water Quality Standards, Assessment, & Restoration
- Compliance



Wastewater Discharge Permitting

- All discharges of wastewater to water, land, or the subsurface require a discharge permit (AS 46.03.100)





Wastewater Discharge Permitting

- Alaska Pollutant Discharge Elimination System (APDES)
 - Alaska, along with 46 other states, has authority for the NPDES program – the Alaska Pollutant Discharge Elimination System (APDES) program
- October 2008 – EPA approved Alaska's application for APDES primacy
- October 2012 – fourth and final phase transferred to DEC – full primacy
- EPA retains oversight
- State wastewater discharge permits for cruise ships



Water Quality Standards

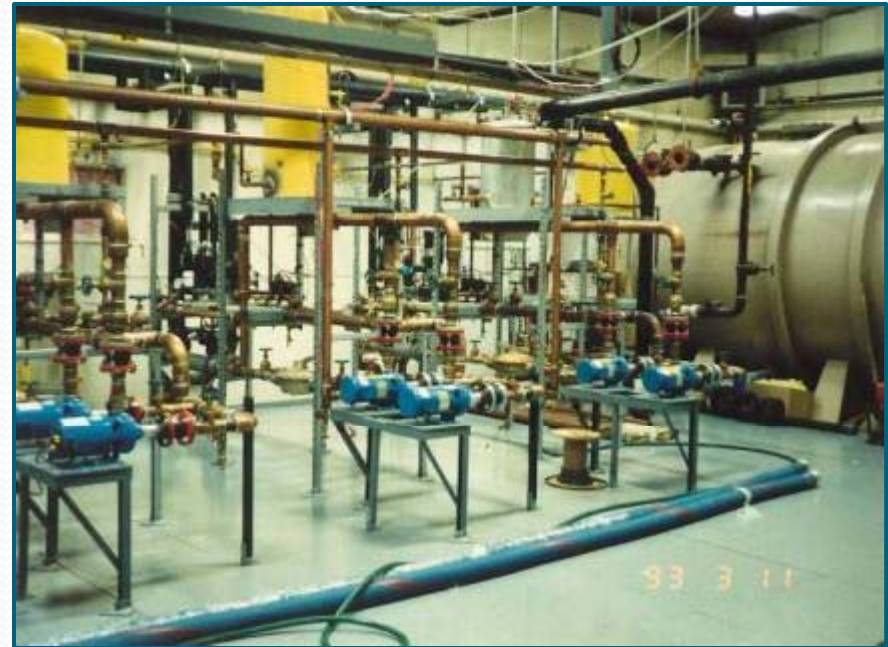
- Alaska's water quality standards adopted in regulation are developed by DEC and approved by EPA
- Water quality standards are used
 - To set wastewater discharge limits in permits
 - To evaluate the health of waters
- Alaska routinely reviews and updates



Division of Water Programs

Facilities Programs

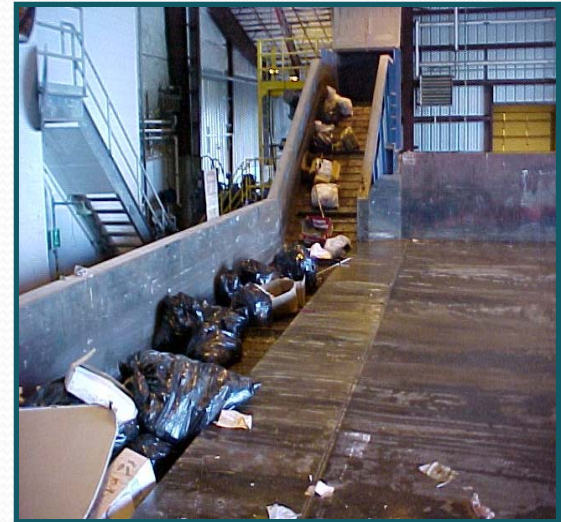
- Municipal Grants & Loans
- Village Safe Water
- Operations Assistance





Municipal Grants and Loans

- Fund sanitation projects
- Grants
 - State Matching Grants
(AS 46.03.030)
 - Grant based on population size
 - 60% (10,000+)
 - 70% (1,000 < 10,000)
 - 85% (<1,000)





Municipal Grants and Loans

- Financing
 - Clean Water Loan Fund (AS 46.03.032)
 - Drinking Water Loan Fund (AS 46.03.036)
 - 100% of eligible costs to a community that can afford loan
 - Low-interest
 - 1.5% for 5-20 year term
 - 1% for under 5 year term





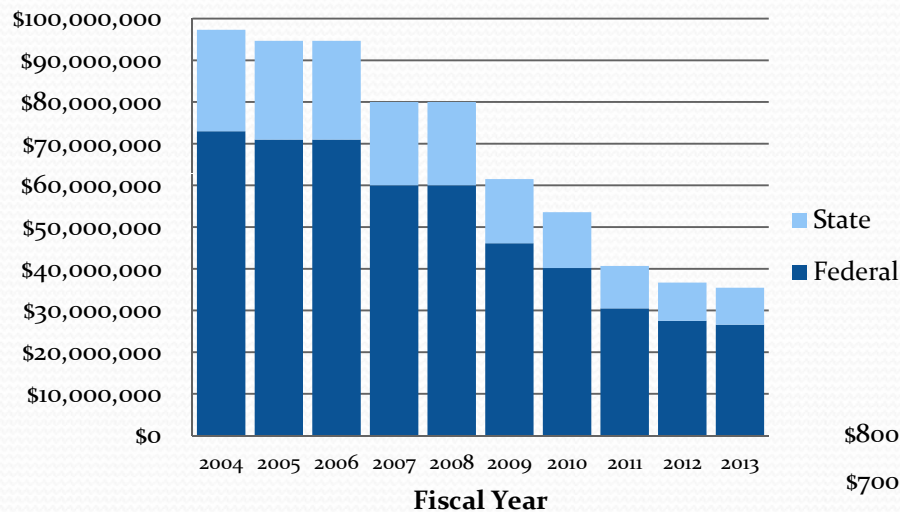
Village Safe Water (VSW)

- Mission
 - Work with rural communities to develop sustainable sanitation facilities
 - Provide safe water and sewage disposal in villages
 - Provide 100% grants for planning, design and construction projects



Rural Alaska Water & Sewer

State & Federal Rural Sanitation Funding Levels

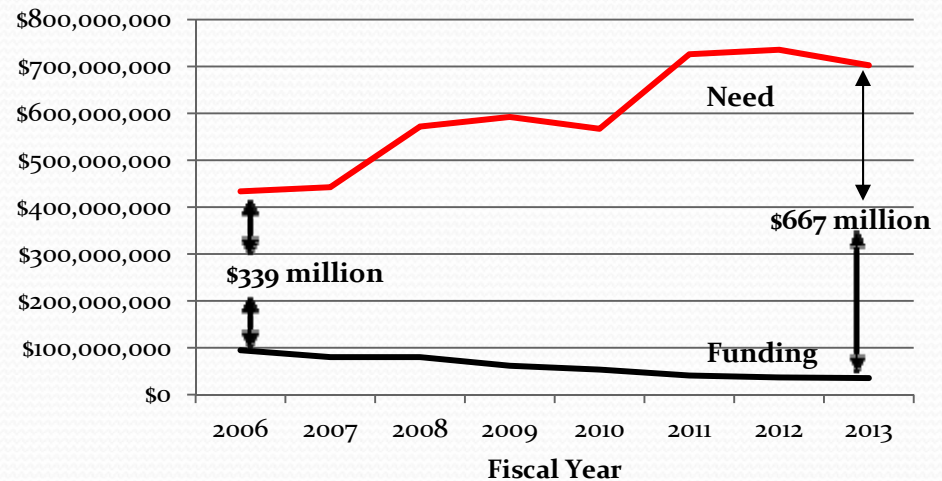


Funding for rural Alaska sanitation projects has declined by over \$61 Million, or 64% between 2004 and 2013.

The graph on the right includes two types of needs:

1. First time service for homes without piped or covered haul.
2. Upgrades or replacement to address significant health threats.

Rural Sanitation Total Funding vs. Need





Remote Maintenance Workers

- 15 Remote Maintenance Workers
 - 13 working for 7 Regional Health Corporations
 - 2 DEC employees
- Routine travel to villages to provide “over-the-shoulder” assistance to facility operators
- Emergency travel to provide immediate response to facility freeze up/break downs
- Remote monitoring pilot – RMWs in Anchorage & Bethel to monitor treatment plants in villages



Questions?

