

01/30/13

**PRESENTATION:
DEPARTMENT OF
ENVIRONMENTAL
CONSERVATION**

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DEPARTMENT OF ENVIRONMENTAL
CONSERVATION</SUBJECT><COMM>SRES28</COMM></TARGET>



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

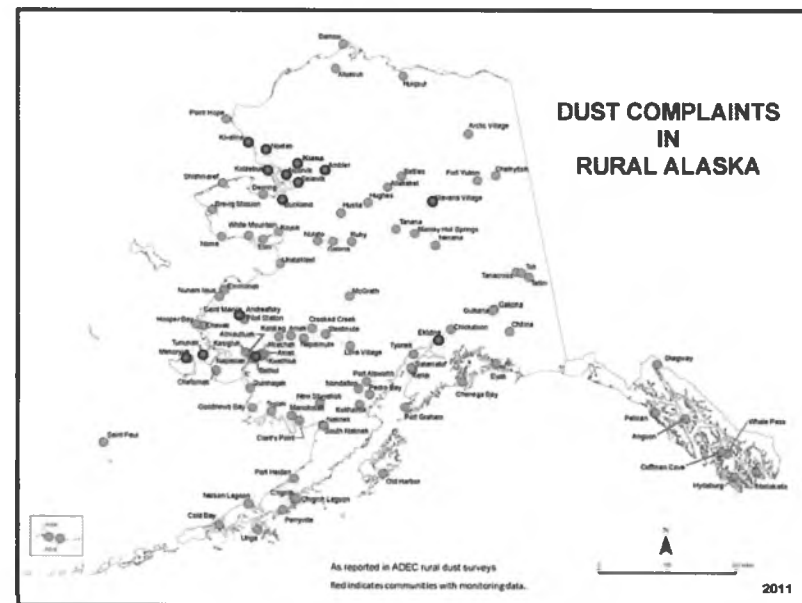


Rural Alaska Air Quality Concerns



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

- Dust
- Wood smoke
- Open Burning





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

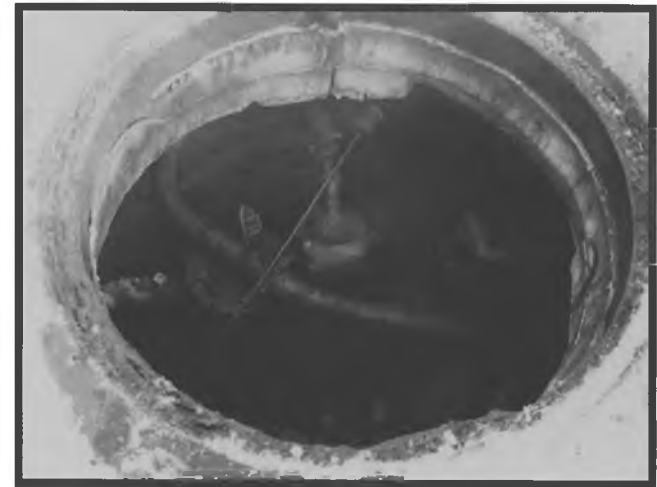




Drinking Water and DEC

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

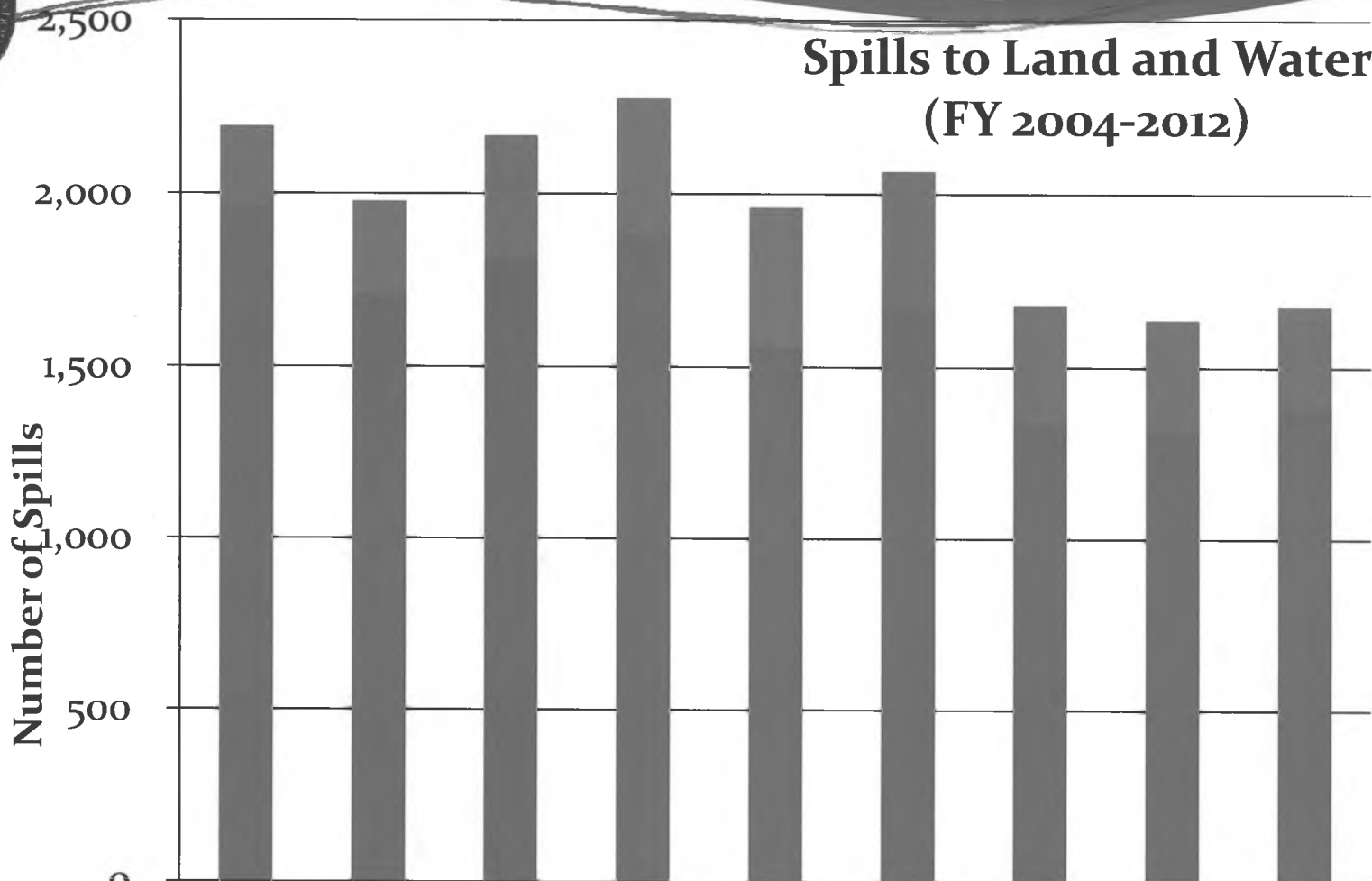
Components:

- 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



**Spills to Land and Water
(FY 2004-2012)**

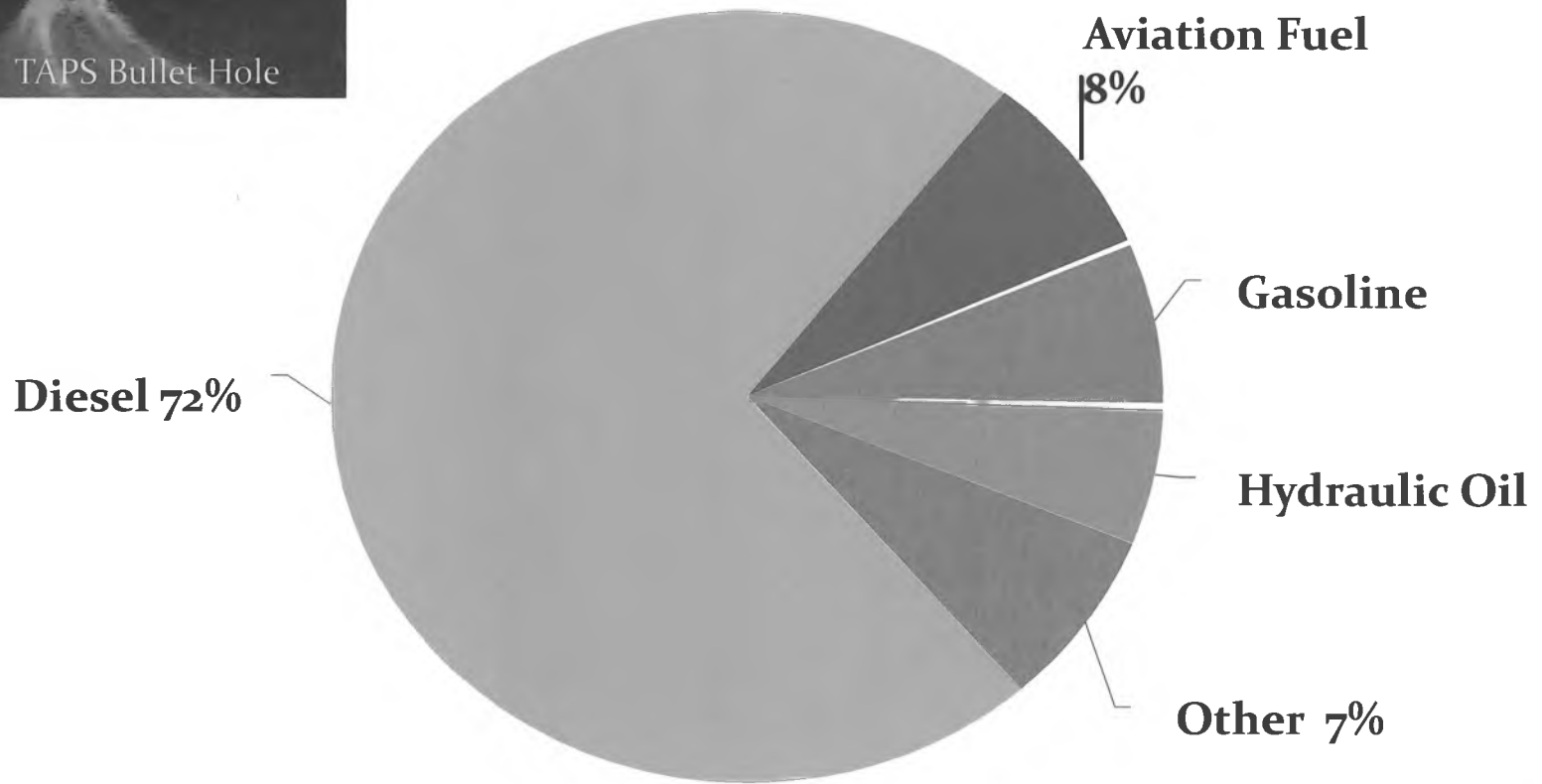
	2004	2005	2006	2007	2008	2009	2010	2011	2012
■ Water	230	269	357	393	405	394	345	328	300
■ Land	1,962	1,708	1,809	1,882	1,556	1,671	1,334	1,308	1,375



Volume Released by Product

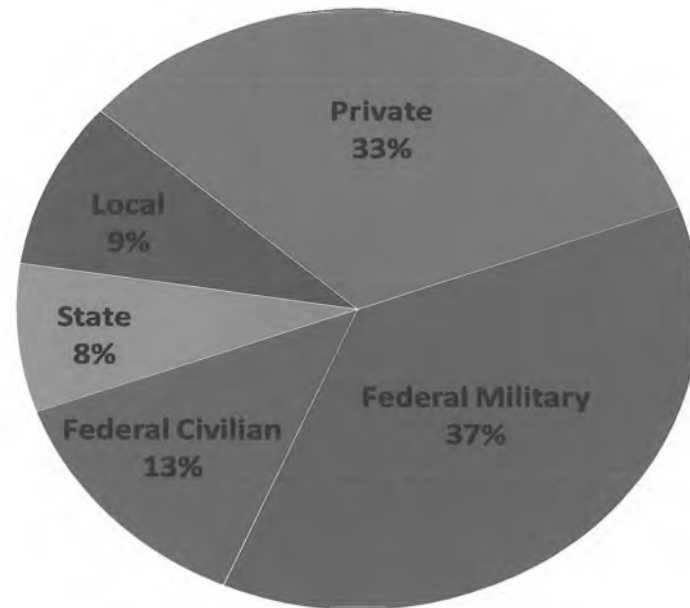
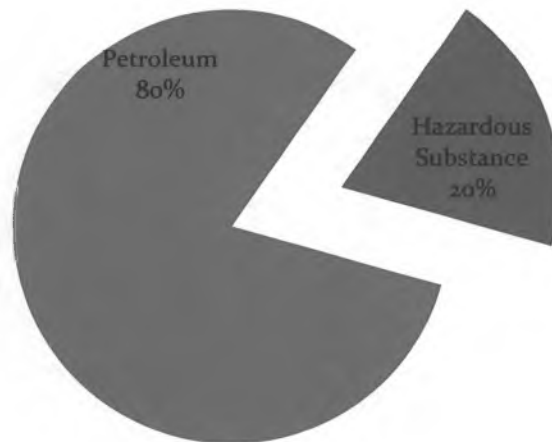


TAPS Bullet Hole





Contaminate Type and Ownership



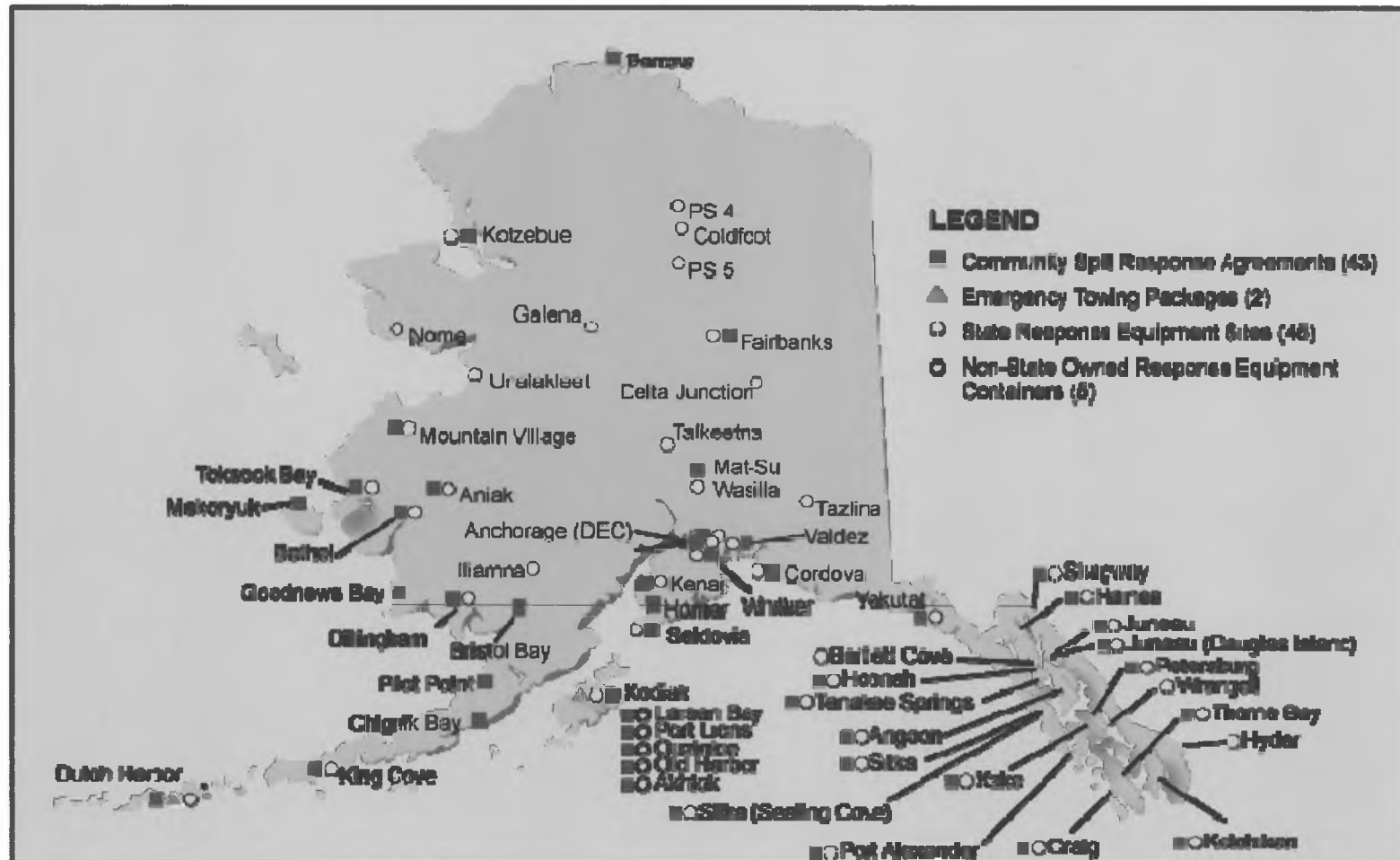


Prevention and Emergency Response Responsibilities

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



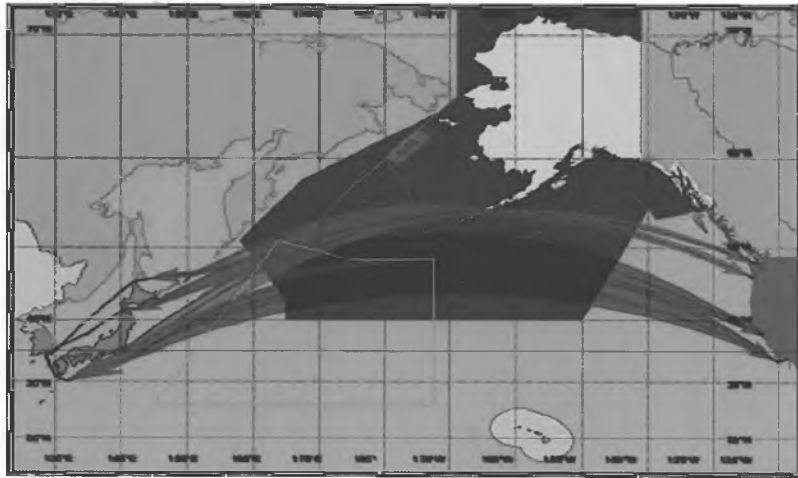
Local Spill Response Agreements and Equipment





Shipping Regions

Great Circle Shipping Routes





Maritime Casualties

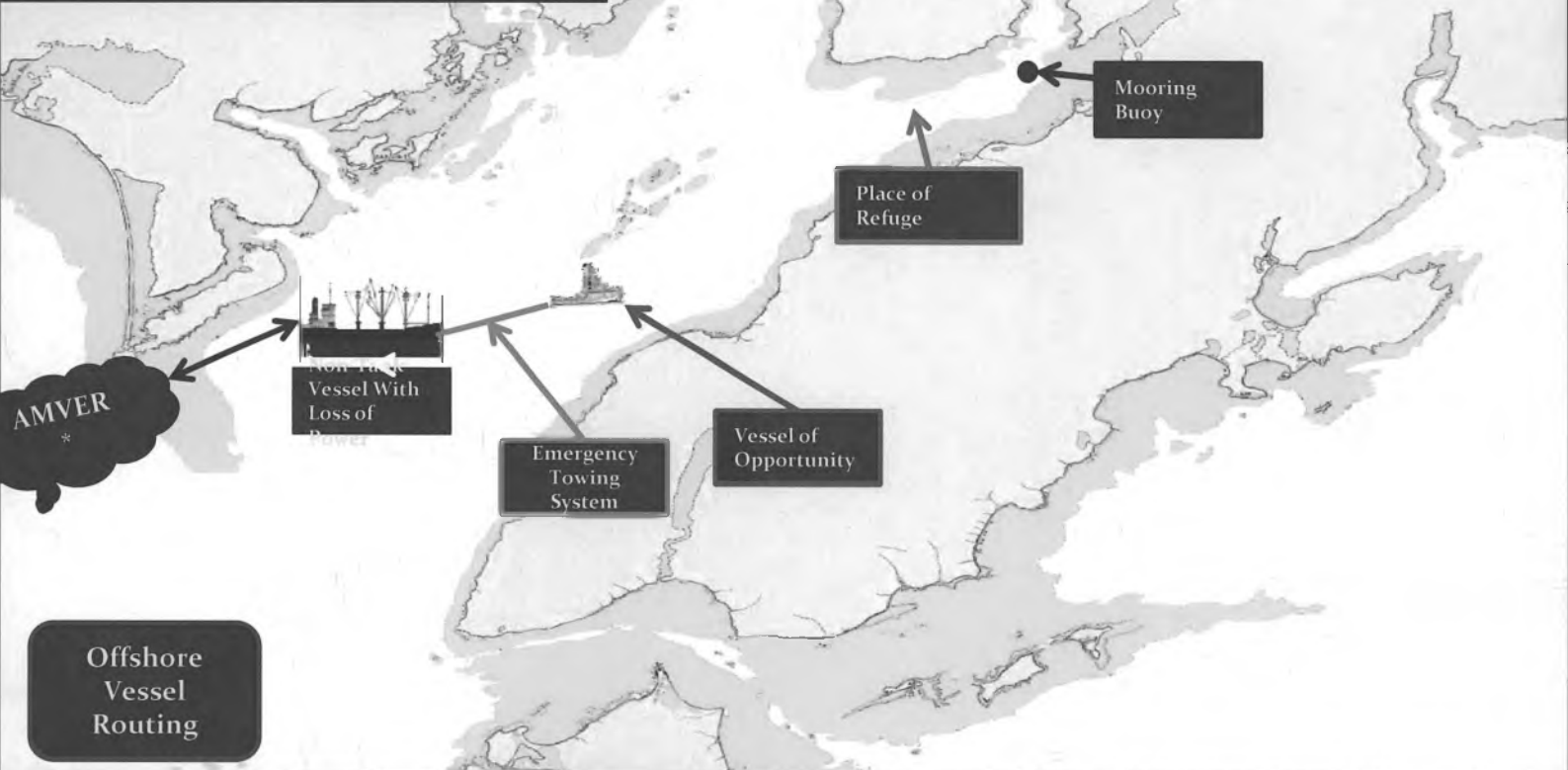




Alaska Vessel Rescue System



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



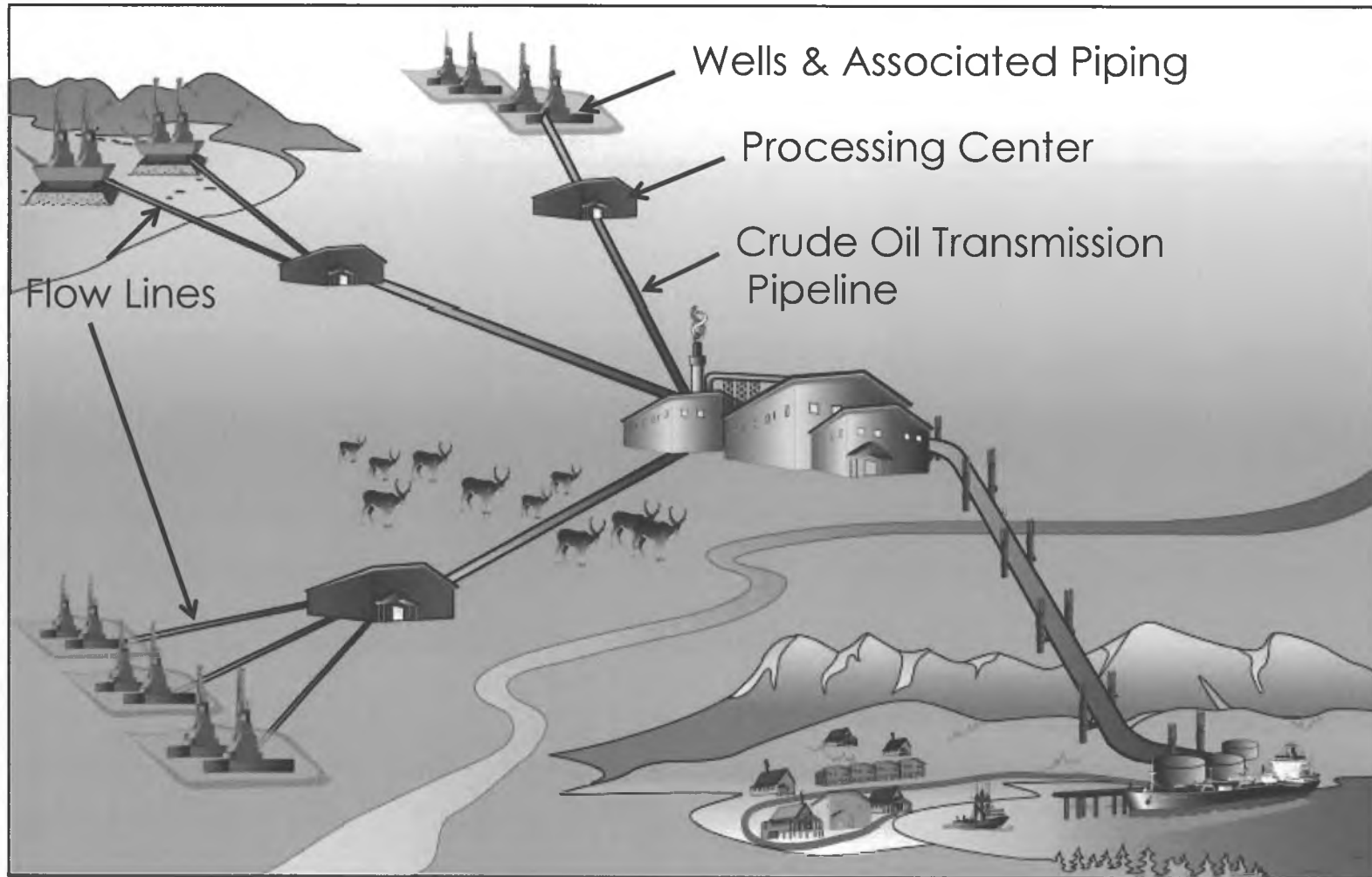


Aging Infrastructure Inspection and Replacement





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

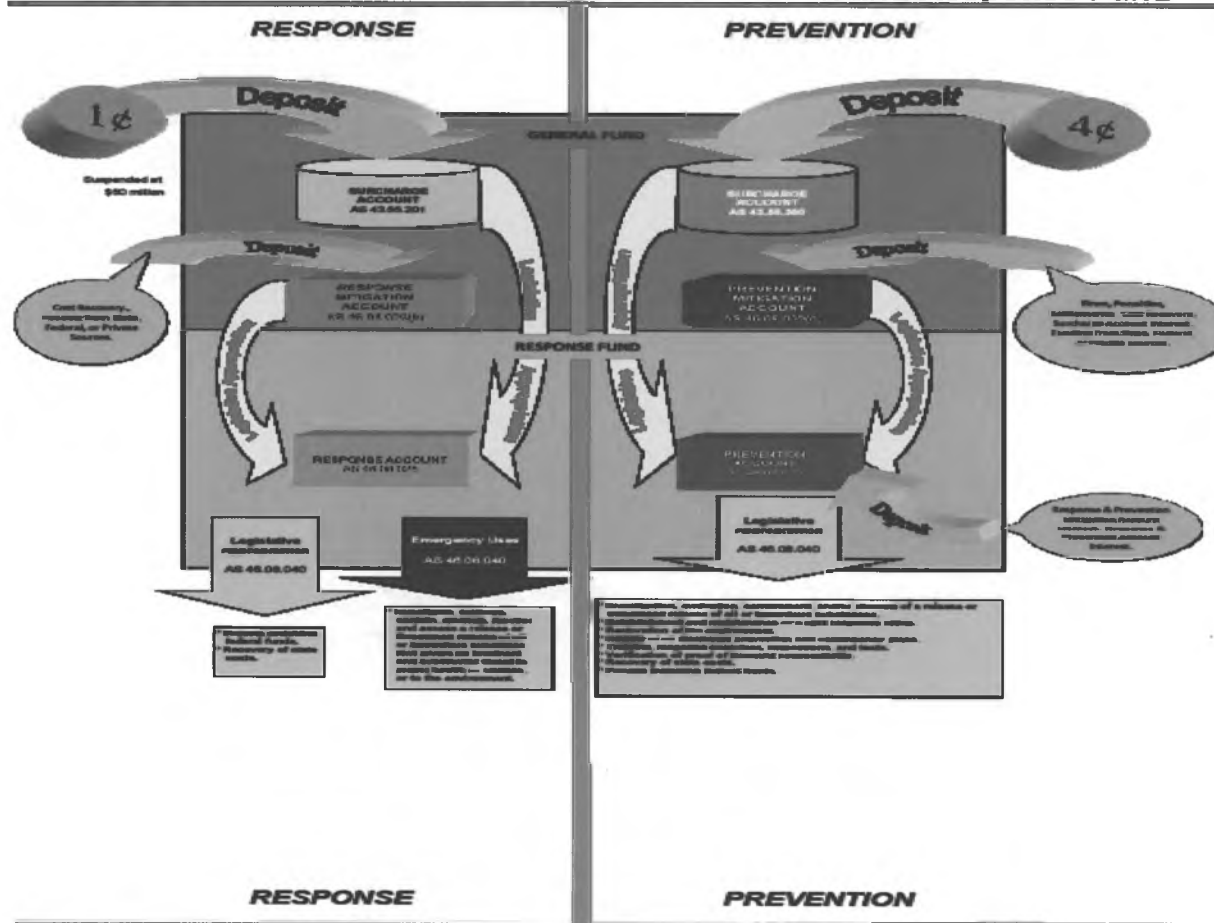
Responsibilities

- 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 11/15/09



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

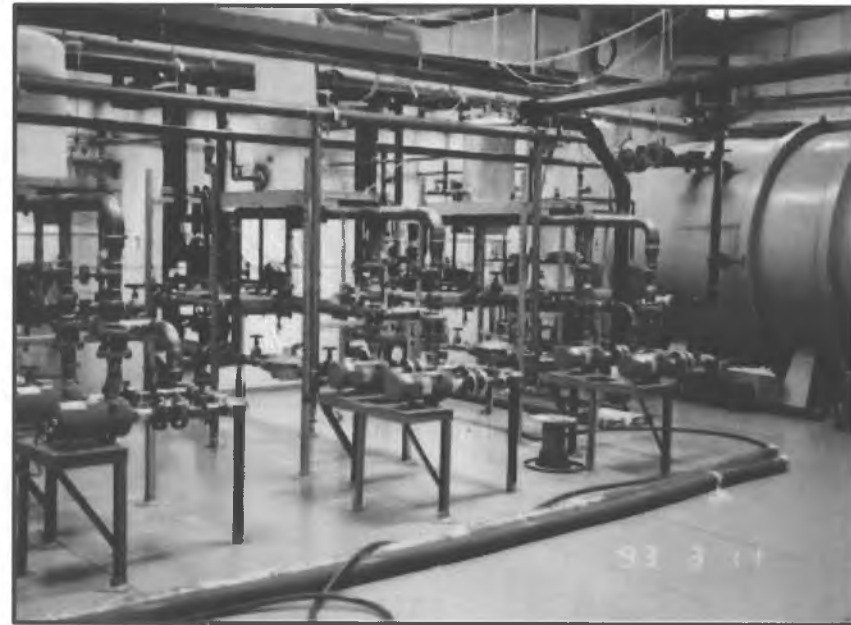
- Alaska's water quality standards adopted in regulation are developed by DEC and approved by EPA
- Water quality standards are used
 - To set wastewater discharge limits in permits
 - To evaluate the health of waters
- Alaska routinely reviews and updates



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





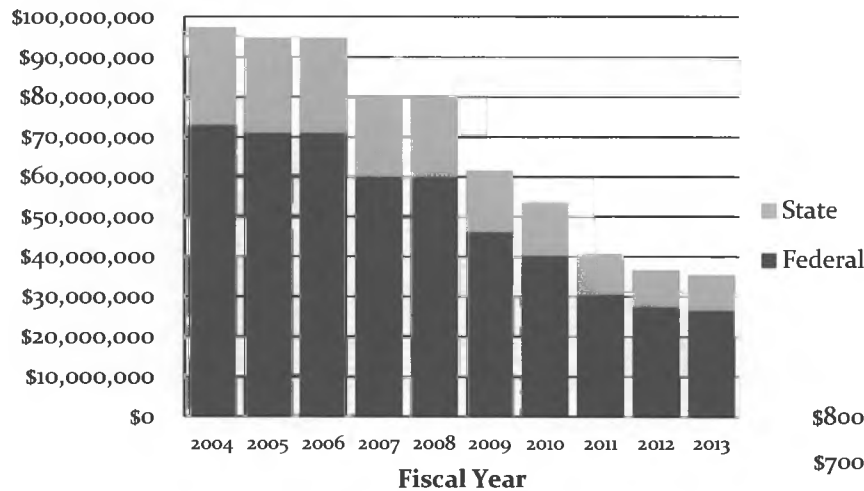
Village Safe Water (VSW)

- 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

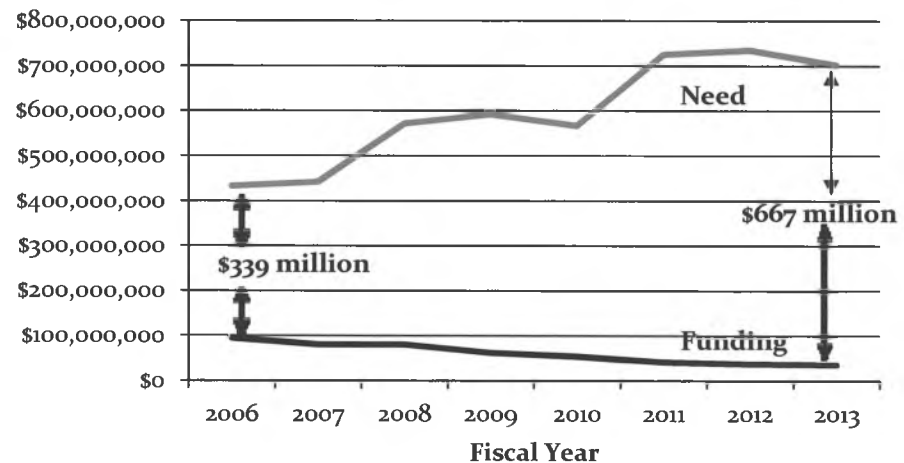


Funding for rural Alaska sanitation projects has declined by over \$61 Million, or 64% between 2004 and 2013.

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?

