



Environmental Health

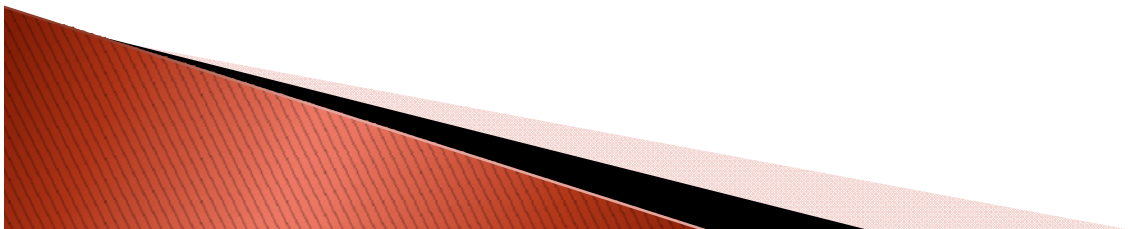
Department of Environmental Conservation
House Resources Overview
January 28, 2011

Division Mission

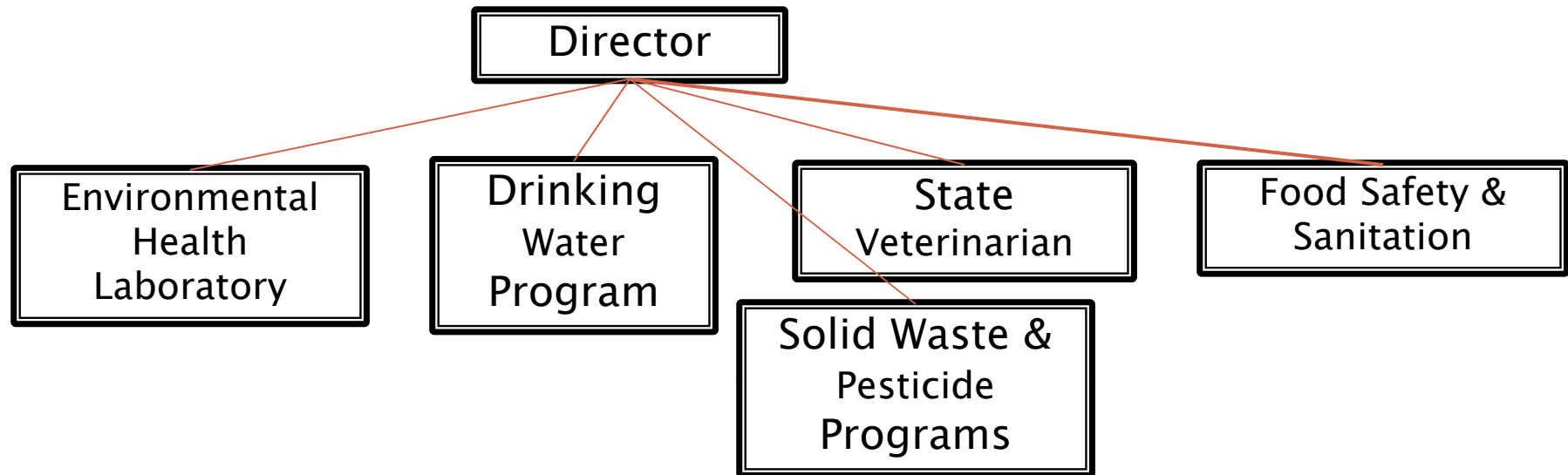
The Division of Environmental Health (EH) deals with the basics:

Safe drinking water, food, and sanitary practices.

Our goal is to provide businesses with clear standards so that they can protect our environment and provide safe food and drinking water to Alaskans.



Organization Chart



What does the Director's Office do?

- Provide direction for changes to nine regulatory chapters
- Provide clear direction to staff and timely decisions when necessary
- Manage budgets of each component so that resources are used wisely
- Ensure that statutory mandates are properly executed



Programs



Drinking Water

Pesticide Control

Solid Waste Management

Food Safety and Sanitation

State Veterinarian

Environmental Health Laboratory

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 technical and compliance assistance to PWS owners and operators, and the public



Drinking Water and DEC

Federally-Designated

Primacy since 1978

- Executing the U.S. Safe Drinking Water Act and Amendments (currently 16, 1 pending approval, and 4 coming).
- EPA provides over \$4 million a year to Alaska.

1,564 federally designated water systems (serve 25 people or more):

- 83% ground water
- 17% surface water
- 682 serve 25 or more persons year-round and 882 serve populations seasonally.



Drinking Water and DEC

State-Regulated

- ▶ 5,000 state regulated systems (25 people or less but larger than a private well serving a home or duplex)
- ▶ Quarterly testing and construction approval
- ▶ Serve assisted living homes, child care facilities, gas stations, office buildings, & apartments
- ▶ RSA from DHSS to work with 121 registered assisted living homes



Drinking Water and DEC

Successes and Challenges

- ▶ 57 employees, 5 offices
- ▶ Increasing complexity of federal rules
- ▶ Limited to no interaction with state regulated systems due to lack of funding
- ▶ Finding new ways to work with water systems and help them stay in compliance:
 - Educate consulting engineers who design water treatment systems & conduct inspections
 - Partnering, case management
 - Intensive community visits





Programs

Drinking Water

➤➤ **Pesticide Control**

Solid Waste Management

Food Safety and Sanitation

State Veterinarian

Environmental Health Laboratory

Pesticide Control and DEC Statutory Authority

- ▶ **AS 46.03.020 (10)(F)**
 - DEC may adopt regulations necessary for ...the control of pesticides

- ▶ **AS 46.03.320 – Regulation of pesticides and broadcast chemicals**
 - Pesticide products must be registered
 - Commercial applicators must be certified
 - Spraying in public places requires notice

- ▶ **AS 46.03.330 – Public pesticide programs**
 - Public notice required for applications performed by state and local governments (permit)



Pesticide Control and DEC

What do we do?

- ▶ 5 employees in Mat-Su office
- ▶ Issue permits for applications on state land, over water or aerial
- ▶ Conducts inspections to make sure pesticide applications are done in accordance 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

- ▶ Very difficult to issue permits (Railroad, DOT, Division of Agriculture)
- ▶ Issued herbicide permit to Alaska Railroad – 1st
- ▶ Increasing expectations for commercial applicators
- ▶ Product registration on-line



Programs

Drinking Water

Pesticide Control

➤➤ **Solid Waste Management**

Food Safety and Sanitation

State Veterinarian

Environmental Health Laboratory



Solid Waste Management and DEC

What do we do?

- ▶ Review and approve solid waste permit applications including plans for design, operations, monitoring, management, construction, and closure
- ▶ Issue permits for solid waste treatment and disposal facilities; and review monitoring results
- ▶ Inspect landfills to verify compliance with permit requirements and state solid waste regulations
- ▶ Enforce violations of permit requirements and state solid waste regulations
- ▶ Monitor closed landfill sites



Solid Waste Program and DEC Basics

- ▶ 14 staff, 3 offices
- ▶ 301 landfills
- ▶ 100% of landfills accepting 5 tons or more a day (Class I and Class II) are permitted. 23 total
- ▶ 22% of village landfills (less than 5 tons) are permitted
- ▶ 100% of industrial landfills in Alaska are permitted. 26 total



Solid Waste Program and DEC

Typical Exploration Reserve Pit Remediation

Before: Open reserve pit, drilling waste and water



After: Drilling waste removed, berms removed to tundra grade; pit backfilled with gravel; site covered to promote revegetation.



Solid Waste Program and DEC

Challenges and Successes

- ▶ Proper landfill management in small villages is difficult
- ▶ Outreach, technical assistance, partnering with federal agencies
- ▶ Closed 5 inactive reserve pits last year, 50 out of 600 left
- ▶ Works closely with communities to clean up after disasters – 2006 Hooper Bay fire and 2009 Eagle flooding.



Programs

Drinking Water
Pesticide Control
Solid Waste Management
➤➤ **Food Safety and Sanitation**
State Veterinarian
Environmental Health Laboratory



Food Safety and Sanitation

Statutory Authority and Regulations – Food

AS 17.20 (Food, Drug, and Cosmetic Act)

- Food offered to the public or sold
- Aquatic farms
- Misbranding, incorrect labels, and false advertising
- Seafood processing

Regulatory Chapters

18 AAC 31: Food Service

18 AAC 34: Seafood Processing



Food Safety and Sanitation

Statutory Authority and Regulations – Sanitation

AS 18.35

- Public Facilities (overnight accommodations, public restrooms, smoking in public places)

AS 44.46.020

- Prevention and control of public health nuisances
- Regulation of sanitation and sanitary practices in the interest of public health at establishments in which lack of sanitation may create a condition that causes disease

Regulatory Chapters

18 AAC 23: hair and body art

18 AAC 30: sanitation (overnight accommodations, public toilets, laundromats, showers, pools and spas)



Food Safety and Sanitation

What do 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

▶ 40 staff, 8 offices

4,500 restaurants, markets, food processors

786 seafood processors

3,716 public facilities

- overnight accommodations
- public toilets, showers, and Laundromats
- pools and spas
- tattoo and piercing shops
- barbers and hairdressers



Food Safety and Sanitation Basics

Inspections

- 26% of permitted retail food establishments inspected in FY 2010
- Average visits to retail food establishments – once every three years
- Performs contract inspections for FDA for Alaska food processors



Notices of Violation

- 12% of inspected food establishments
- 7% of seafood processors

Food Worker Cards

- 90,000 cards in four years



Food Safety and Sanitation

Successes and Challenges

- ▶ Inadequate inspection frequencies at high risk facilities.
- ▶ Complying with variety of federal programs (e.g., shellfish, FDA and USDA)
- ▶ Knowing where to draw the line.
 - Food offered or sold to the public.



Advertized events open to the public require temporary permit.

Private events, churches, potlatches do not.

What can be sold off the farm with *no* DEC oversight?

- ▶ Raw, whole vegetables
- ▶ Eggs
- ▶ Poultry
- ▶ Meat (custom processed for animal owner)
- ▶ Jam, jelly, syrup
- ▶ herb vinegar
- ▶ dried herbs
- ▶ dried tea leaves

Why?

These are either cooked before eating or are too acidic to encourage pathogen growth

What do you need a permit for?

Smoked fish
Cheese
Shucked peas
Bagged leafy greens

Why?

Because these products are ready-to-eat or easily harbor pathogens

Food Safety and Sanitation

Are people getting sick?

Foodborne Illness Outbreaks* August 2009–August 2010
Reported from the State Section of Epidemiology, DHSS

Month	Year	Pathogen	Subspecies	Source	Setting	Village/City	Number Ill
August	2009	Salmonella	<i>Montivideo/Seftenberg</i>	Black Pepper	Home	Anchorage	2
August	2009	Vibrio	<i>Parahaemolyticus</i>	Oysters	Restaurant	Fairbanks	2
October	2009	Salmonella	<i>Heidelberg</i>	PFGE to FF chicken	Home	Petersburg/Anchorage	4
December 09-Feb 10	2010	Salmonella	<i>Typhimurium</i>	Unknown	Unknown	Soldotna	3
February	2010	Salmonella	<i>Montevideo</i>	Chicken related	Home	Ketchikan	1
April	2010	Campylobacter	<i>Jejuni</i>	Unknown	Home	Kenai Peninsula	3
April	2010	Botulism		Seal Blubber/Oil	Home	Napaskiak	2
May	2010	Salmonella	<i>Enteritidis</i>	Unknown	Unknown	Anchorage/Eagle River	4
May	2010	Epi link to food		Fiddlehead Ferns	Convention Center	Anchorage	38
May	2010	Salmonella	<i>Javiana</i>	Unknown	Travelers	Anchorage (Mexico)	1
June	2010	PSP		Cockles	Beach	Juneau	1
June	2010	PSP		Clams	Beach	Kodiak	3
June	2010	Campylobacter		Unknown	Travelers	Anchorage (Mexico)	7
June	2010	Campylobacter		Unknown	Home	Napaskiak	5
August	2010	Botulism		Stinkheads	Home	Bethel	1
August	2010	Salmonella	<i>Thompson</i>	Hollandaise sauce	Restaurant	Kenai	7

*Two or more persons ill from the same source; one case of botulism, trichinosis, or PSP; or any number of ill persons linked to a multistate outbreak through PFGE.

Food Safety and Sanitation

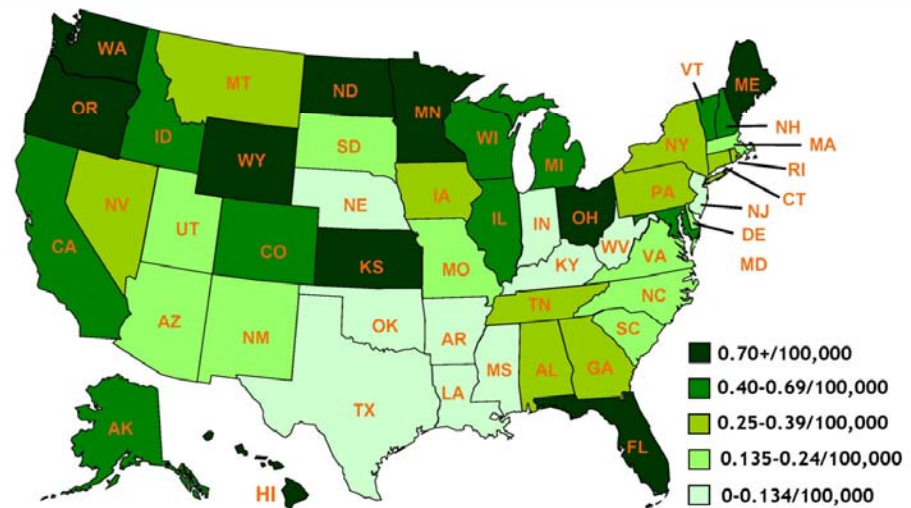
Are people getting sick?

Reported Foodborne Outbreaks in Alaska

Year	# ill
2004	92
2005	18
2006	76
2007	2
2008	115

(only from regulated facilities)

Foodborne Outbreaks Reported Annually Per 100,000 Population, by State, 2003-2007



CDC, National Foodborne Outbreak Reporting System



Includes outbreaks from unpermitted activities

Programs

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»» **State Veterinarian**
Environmental Health Laboratory



State Veterinarian Statutory Authority

▶ AS 03.05.011

- examine, inspect, test, quarantine or embargo animals or animal products to prevent the spread of pests or contagious or infectious disease.

▶ AS 03.55.100

- establish minimum standards for animal care

▶ AS 17.20.005

- Grading of milk & milk products, set standards of sanitation for dairies offering or selling to the public which are equal to the minimum standards of the U.S. Pasteurized Milk Ordinance.



Regulatory Chapters:

18 AAC 32 Milk, Milk Products
& Reindeer Slaughter
18 AAC 36 Animal Health

State Veterinarian

What do we do?

5 staff, two offices

Permit, inspect, monitor and provide technical assistance to dairy and meat producers

Permit and monitor the movement of animals and animal biological products (vaccines, etc)

Monitor and control animal diseases

Responds to animal health emergencies

Collects fish samples statewide and evaluate them for contaminants



State Veterinarian Successes and Challenges

- ▶ Major revisions to animal health regulations overdue
- ▶ Maintaining State's disease-free status, allowing easy international and interstate animal transport; decreasing testing burden on producers
- ▶ Helping commercial and private animal owners keep animals healthy & free of disease.
- ▶ Permitted mobile slaughter facility for reindeer.
- ▶ Permitted 3 cheese production facilities.



State Veterinarian

What's going on with cheese?

State statute requires dairy products comply with the U.S. Pasteurized Milk Ordinance.

What do the regulations require?

- Separate areas for different activities (milking, pasteurizing, aging cheese, cleaning products)
- Testing products for antibiotics and foodborne pathogens
- IF pasteurizing, use of machine that monitors temperature. Raw milk cheese is allowed though
- Standards for cleaning
- Documenting production and cleaning
- Correct product labeling



Small batch pasteurizer

Is Alaska stricter than other States?

No. We used other state regulations as models. There are some variations but Alaska's rules are not stricter.

Programs

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State Veterinarian

»» Environmental Health Laboratory



Environmental Health Laboratory

What do we do?

- ▶ Inspect and certify private labs
- ▶ Test environmental samples, food, water, finfish, shellfish, and domestic and wild animals
- ▶ Analyze fish tissue for chemical, microbial, and marine toxin contaminants
- ▶ Provide laboratory testing services and information for the assessment of risks to public health, welfare and the environment.
- ▶ 23 staff, one location
- ▶ Testing services
 - food safety
 - drinking water
 - animal health
 - contaminant monitoring
- ▶ Ran 67,901 tests in 2010
- ▶ Extensive certifications (EPA, FDA, USDA)



Environmental Health Laboratory

Successes and Challenges

- ▶ In-state testing avoids cost of shipping and time delays
- ▶ Offer services not provided by private sector (some because federal law mandates gov't lab)
- ▶ Developing new methods that are quicker (24 hour turn around compared to 5 days), labor saving and moving at the speed of commerce.
- ▶ Certification by three federal agencies requires extensive QA/QC procedures and verifies the accuracy of our results



Questions?

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