

**State of Alaska
FY2006 Governor's Operating Budget**

**Department of Environmental Conservation
Laboratory Services
Component Budget Summary**

Component: Laboratory Services

Contribution to Department's Mission

Provide analytical and technical information in support of state and national environmental health programs.

Core Services

- Inspect and certify drinking water and environmental testing laboratories.
- Laboratory tests on food, water, seafood, shellfish, and domestic and wild animals.
- Laboratory testing and analysis of fish tissue for chemical, microbial, and marine toxin contaminants.
- Test marine waters for suitability for commercial shellfish growing.
- Permit and inspect milk producers and dairy product processors
- Permit and inspect reindeer meat producers.
- Permit and monitor the import and export of pets, domestic livestock, and veterinary biologics.
- Surveillance and control of new and emerging animal diseases, zoonotic diseases, Foreign Animal Diseases, and agriculture based terrorism threats.

End Results	Strategies to Achieve Results
<p>A: Information is available for assessment of risks to public health, welfare and the environment.</p> <p><u>Target #1:</u> All requested tests are completed. <u>Measure #1:</u> The % of tests requested that receive results.</p>	<p>A1: Provide information relating to risks associated with chemical and biological contaminates.</p> <p><u>Target #1:</u> All requested tests for chemical and biological contaminants are complete. <u>Measure #1:</u> The % of requested tests for contaminants that receive results.</p> <p>A2: Provide information relating to risks associated with animal diseases.</p> <p><u>Target #1:</u> All requested tests for animal diseases are complete. <u>Measure #1:</u> The % of requested tests for animal diseases that receive results.</p> <p>A3: Provide information relating risks associated with toxins.</p> <p><u>Target #1:</u> All requested tests for toxins are complete. <u>Measure #1:</u> The % of requested tests for toxins that receive results.</p>

Major Activities to Advance Strategies

- | | |
|---|---|
| <ul style="list-style-type: none"> • Test shellfish. • Test food and water samples. • Test species of fish per contaminant group. • Review labs for certification annually. | <ul style="list-style-type: none"> • Train EH staff on drinking water sampling and testing protocols annually. • Screen and/or inspect dairy farms and processors. • Issue animal health certificates. • Investigate animal disease complaints and outbreaks. |
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FY2006 Resources Allocated to Achieve Results

FY2006 Component Budget: \$2,675,700

Personnel:

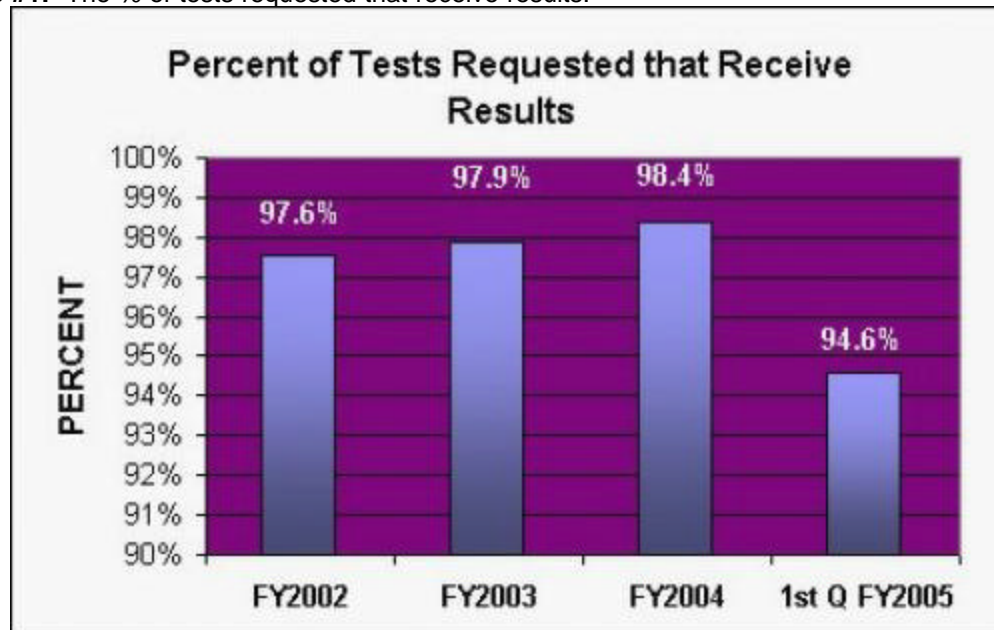
Full time	23
Part time	0
Total	23

Performance Measure Detail

A: Result - Information is available for assessment of risks to public health, welfare and the environment.

Target #1: All requested tests are completed.

Measure #1: The % of tests requested that receive results.



The Percent of Tests Requested that Receive Results

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	YTD
2002	0	0	0	0	97.6%
2003	0	0	0	0	97.7%
2004	98%	100%	98%	97%	98.4%
2005	94.6%	0	0	0	94.6%

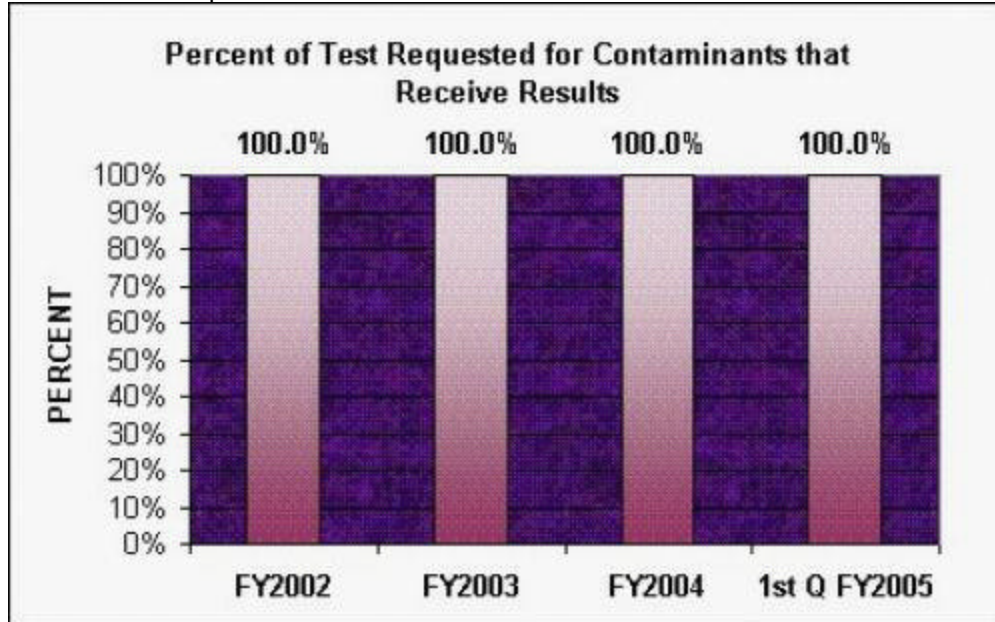
Analysis of results and challenges: The Environmental Health Laboratory's Target is to provide optimal customer service in the form of accurate, timely, and reliable results for 100% of the requests received. In addition to performing both biological and chemical analysis, the laboratory will continue to perform certification inspections for drinking water and environmental testing laboratories throughout the state. During FY2005 a new state-of-art testing Environmental Health Laboratory with enhanced testing capabilities is being constructed. The new facility will include testing labs for seafood toxins, bacteriology, immunology, dairy, animal diagnostics, chemical analysis, and molecular biology. New processes will be developed and implemented during this period. They include: a Quality Management Program, Safety Program, Security Program, Laboratory Information Management System, Animal Diagnostic Program, and Molecular Biology Program. The transition from Palmer to Anchorage is expected to be completed by September 2005. These changes may temporarily

impact performance through FY2005 and into the beginning of FY2006.

A1: Strategy - Provide information relating to risks associated with chemical and biological contaminants.

Target #1: All requested tests for chemical and biological contaminants are complete.

Measure #1: The % of requested tests for contaminants that receive results.



The Percent of Tests Requested for Contaminants that Receive Results

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	YTD
2002	0	0	0	0	100%
2003	0	0	0	0	100%
2004	100%	100%	100%	100%	100%
2005	100%	0	0	0	0

Analysis of results and challenges: Mercury testing of fish tissues is the primary testing activity for this measure. During the first quarter of FY2005 no mercury tests were completed because of equipment problems. A new analyzer was purchased and will be available to resume testing during this next quarter.

Because Alaska is a leading producer world wide for seafood, methyl mercury in fish has become a high profile issue. The Division of Environmental Health is the regulatory agency responsible for assuring the safety of commercially harvested fish for national and international markets, as well as subsistence and sport fish consumers.

The toxicity of mercury to man and animals in large doses is well known and has a long history. Mercury is a naturally occurring element and widely distributed in the environment. Ores bearing mercury are mined worldwide and the refined mercury used in many commercial applications. Mercury is also found in trace quantities in fossil fuels such as coal and released into the environment when burned. With the advancement of science and refined measuring techniques for mercury, trace amounts were detected in the environment but more importantly, found in the water and food that we consume.

Mercury that enters the food chain is of particular concern due to its more toxic organic form as methyl mercury. The more toxic compound is formed when bacteria, for unknown reasons, convert elemental mercury to methyl mercury. Once this conversion to methyl mercury takes place the mercury is now in a form that is known to bioaccumulate. This bioaccumulation factor becomes significant among predatory fish and animals, with man being the top predator in the food chain.

The significance of methyl mercury in fish became a concern more than 30 years ago. The US Food and Drug Administration set a regulatory level of 1ppm (part per million) for fish entering commerce. At the time this was considered a safe level for food consumption. Recent studies by the World Health Organization, US Environmental Protection Agency and private organizations indicate that the 1ppm level may not protect all segments of the population, particularly children, expectant mothers and women of child bearing age who consume fish on a regular basis.

Although there is little that can be done from the regulatory standpoint to eliminate the methyl mercury issue, it is the Division of Environmental Health's responsibility to provide information through laboratory testing that will identify problems if lower regulatory levels are imposed. The accumulation of methyl mercury data for all species of fish will also allow consumers to make informed choices for consumption of Alaska fish. The Division's Environmental Health Laboratory began collecting data in 1997 and is gradually expanding its data base on the many fish indigenous to Alaska, both freshwater and saltwater species. As this data becomes available, it is viewable to the public on the Division's web page.

A2: Strategy - Provide information relating to risks associated with animal diseases.

Target #1: All requested tests for animal diseases are complete.

Measure #1: The % of requested tests for animal diseases that receive results.

The Percent of Requested Tests for Animal Diseases that Receive Results

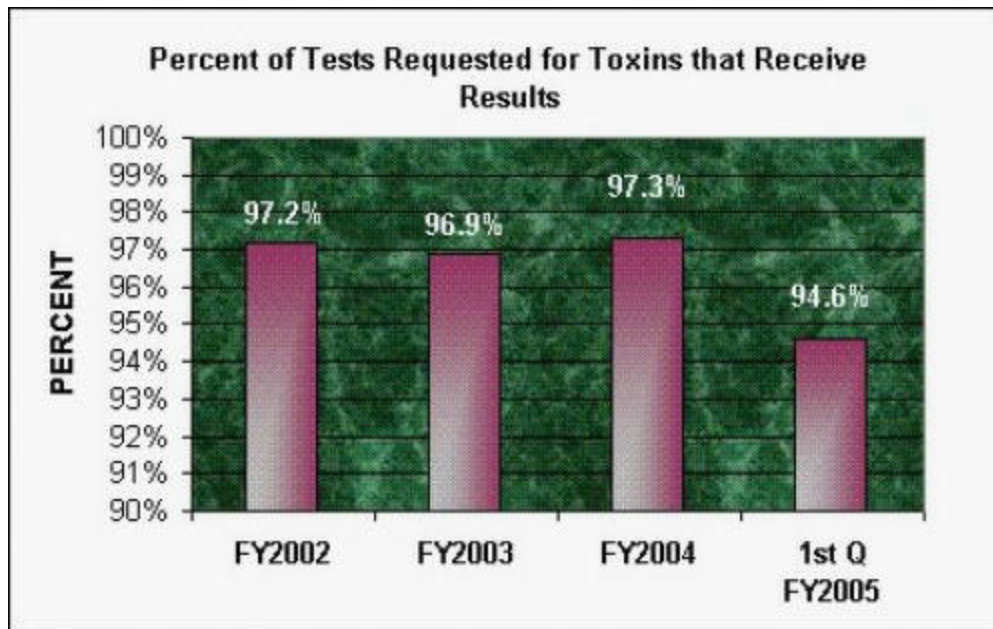
Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	YTD
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Analysis of results and challenges: This strategy provides the State of Alaska with the initial framework to monitor farm animals and wildlife for Transmissible Spongiform Encephalopathy (TSE) related diseases. Subsequent to the first reported case of "mad cow" disease in the United States, it has become more critical for the State Environmental Health Laboratory to develop the capability to test for various TSEs. Construction of a new facility, with accommodations to performing animal diagnostics will be completed by September 2005; implementation of these new procedures will take place after that time. Animal tissue examination and molecular testing using DNA amplification will be possible in the future. It is expected that this testing scheme will be expanded from Chronic Wasting Disease (CWD) surveillance in wild game to Bovine Spongiform Encephalopathy (BSE) "mad cow" and scrappies surveillance in domestic animals. This testing contributes to the strategy of providing information relating to risks associated with animal diseases.

A3: Strategy - Provide information relating risks associated with toxins.

Target #1: All requested tests for toxins are complete.

Measure #1: The % of requested tests for toxins that receive results.



The Percent of Requested Tests for Toxins that Receive Results

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	YTD
2002	0	0	0	0	97%
2003	0	0	0	0	97%
2004	98%	100%	96%	95%	97%
2005	95%	0	0	0	95%

Analysis of results and challenges: Paralytic Shellfish Poison (PSP) toxins are toxins produced by microscopic organisms that accumulate in shellfish through their natural feeding processes. These toxins affect humans, other mammals, and possibly birds when toxic shellfish are ingested. There is no known antidote once a person has ingested shellfish containing these toxins, nor is there any way of knowing, just from looking, whether or not a particular shellfish is toxic. If the person can be diagnosed soon enough after presenting with symptoms and can be placed on a respirator, the body will eventually cleanse itself of the toxins. The current acceptable method for detecting and quantifying these toxins is the mouse bioassay using extracts prepared by an AOAC (Association of Official Analytical Chemists) approved method.

Using a graduated uniform sampling plan, shellfish from commercial shellfish growing areas are routinely tested for these toxins. Since the department started the testing program in the early 1980's, no known illnesses have occurred from commercially harvested Alaskan grown shellfish.

All samples submitted to the laboratory are assigned a number and nearly all samples are tested. Although the intent is to test 100% of the samples that are received, occasionally samples are submitted in a decomposed condition that prevents testing; or a sample submitter will request that the sample they submitted not be tested for a variety of reasons. These factors would account for a percent completion being less than 100%.

Key Component Challenges

Replacing the existing leased facility with a new Environmental Health Laboratory (EHL) that meets the Federal operational and safety standards for a modern laboratory is a priority for this component. In FY2004 the Legislature provided capital funding for construction and occupation of a new laboratory facility. The EHL is scheduled for completion in early summer of 2005 with a go live date expected to be in late summer. Additional testing capabilities of the new laboratory will include a molecular biology, immunology, histology and animal diagnostic sections.

Ensuring the public of the safety of Alaska's wild fish resources continues to be an issue. We receive requests from buyers of Alaska's seafood products asking for assurance that they have not been altered by pollution. The EHL is continuing a fish tissue testing program to sample and test salmon, halibut and other species for persistent organic pollutants and heavy metals. Continued monitoring is necessary to ensure that our wild fish resources are not negatively impacted by persistent organic pollutants (pesticides, PCB's, Dioxins) as well as newly recognized chemical

contaminants (brominated fire retardants, perfluorochemicals).

The Office of the State Veterinarian is establishing surveillance programs for newly emerging diseases, foreign animal diseases, zoonotic diseases and agriculture based terrorism threats. The new EHL will provide histological and immunological support for this surveillance. These threats, some of which have recently begun to appear in the United States pose a grave threat to agriculture, wildlife, and public health in Alaska, as well as to the \$100 billion agriculture industry of this country. The effort to address this important public health function has increased as the risk to agriculture increases with the increase in agricultural imports and international travel to the state.

Significant Changes in Results to be Delivered in FY2006

Seafood and shellfish related testing is increasing with the emergence of new pathogens such as *Vibrio Hemolyticus* and an increasing number of shellfish harvest/growing areas. The overall testing output of the laboratory will be increasing as a result of this demand and the increased testing needs related to animal health and the fish tissue testing programs. Additional positions are requested in the budget to address this increasing testing and analysis demand on the Environmental Health Laboratory.

The Office of the State Veterinarian (OSV) has a single veterinarian on staff to meet all the technical needs of the animal health program and the demands of increased animal and zoonotic disease surveillance and monitoring. An increase in animal disease related outbreak threats to domestic and wildlife species are requiring continuous coverage by the OSV in meeting their statutory responsibilities. The budget requests the addition of an Assistant State Veterinarian.

Major Component Accomplishments in 2004

Approximately 700 fish were tested for the presence of mercury and other chemical contaminants to respond to national fish consumption advisories and concerns of commercial buyers of Alaska seafood products.

An outbreak of *Vibrio parahaemolyticus* severely affects shellfish growers during the summer of 2004. As the result of warmer water temperatures, this bacterium produced more than 50 reported cases of illness and closed the operations of many of the producers. A revised surveillance program is now being developed.

Johne's Disease testing was developed and implemented during the summer of 2004. Future testing needs will not require submission to a laboratory outside of Alaska.

Ground was broken in the spring of 2004 for the new Environmental Health Laboratory. Staffing and transitions plans and a quality assurance program were developed during this timeframe. The construction project is on schedule.

Completed the first year of a testing project for geoduck clams based on a sample protocol and testing method developed with industry to identify timeframes for safe and successful sale of live product. Live sale of geoducks during the 2003/2004 harvest season exceeded a million dollars for the first time.

Statutory and Regulatory Authority

AS 03.05, AS 03.45, AS 03.58, AS 17.05, AS 17.07, AS 17.20, AS 44.46, AS 46.03, 18 AAC 15, 18 AAC 31, 18 AAC 32, 18 AAC 34, 18 AAC 80, 18 AAC 90

Contact Information

Contact: Kristin Ryan, Director
Phone: (907) 269-7644
Fax: (907) 269-7654
E-mail: kristin_ryan@dec.state.ak.us

Laboratory Services Component Financial Summary

All dollars shown in thousands

	FY2004 Actuals	FY2005 Management Plan	FY2006 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	1,401.4	1,400.9	1,634.2
72000 Travel	58.7	71.9	56.4
73000 Services	415.3	509.8	792.5
74000 Commodities	121.6	134.5	147.9
75000 Capital Outlay	92.4	61.7	44.7
77000 Grants, Benefits	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	2,089.4	2,178.8	2,675.7
Funding Sources:			
1002 Federal Receipts	537.5	514.9	1,055.5
1003 General Fund Match	135.6	90.2	92.1
1004 General Fund Receipts	1,024.8	1,016.8	1,097.0
1005 General Fund/Program Receipts	89.1	117.2	157.9
1007 Inter-Agency Receipts	289.6	426.4	259.5
1052 Oil/Hazardous Response Fund	12.8	13.3	13.7
Funding Totals	2,089.4	2,178.8	2,675.7

Estimated Revenue Collections

Description	Master Revenue Account	FY2004 Actuals	FY2005 Management Plan	FY2006 Governor
Unrestricted Revenues				
None.		0.0	0.0	0.0
Unrestricted Total		0.0	0.0	0.0
Restricted Revenues				
Federal Receipts	51010	537.5	514.9	1,065.7
Interagency Receipts	51015	289.6	426.4	263.4
General Fund Program Receipts	51060	89.1	117.2	161.4
Restricted Total		916.2	1,058.5	1,490.5
Total Estimated Revenues		916.2	1,058.5	1,490.5

**Summary of Component Budget Changes
From FY2005 Management Plan to FY2006 Governor**

All dollars shown in thousands

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
FY2005 Management Plan	1,224.2	514.9	439.7	2,178.8
Adjustments which will continue current level of service:				
-FY 05 Bargaining Unit Contract Terms: GGU	7.8	2.2	0.6	10.6
-New Fish Tissue Federal Authority	0.0	100.0	0.0	100.0
-FY06 Cost Increases for Bargaining Units and Non-Covered Employees	29.0	7.6	2.9	39.5
-Adjustments for Personal Services Working Reserve Rates and SBS	0.0	0.8	0.0	0.8
Proposed budget decreases:				
-Uncollectible Interagency Funding - Fish Tissue Testing	0.0	0.0	-200.0	-200.0
-Lease cost reduction - HB215 Fiscal Note	-18.4	0.0	0.0	-18.4
Proposed budget increases:				
-Increased Seafood Testing	37.5	0.0	30.0	67.5
-Funding an Assistant State Veterinarian	66.9	30.0	0.0	96.9
-New Fish Tissue Testing - Federal Grant	0.0	400.0	0.0	400.0
FY2006 Governor	1,347.0	1,055.5	273.2	2,675.7

**Laboratory Services
Personal Services Information**

Authorized Positions		Personal Services Costs		
<u>FY2005</u>				
<u>Management</u>	<u>Plan</u>	<u>FY2006</u>	<u>Governor</u>	
Full-time	20	23	Annual Salaries	1,163,603
Part-time	0	0	COLA	16,606
Nonpermanent	0	0	Premium Pay	2,927
			Annual Benefits	571,724
			<i>Less 3.92% Vacancy Factor</i>	(68,760)
			Lump Sum Premium Pay	0
Totals	20	23	Total Personal Services	1,686,100

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Administrative Clerk III	2	0	0	0	2
Administrative Manager III	1	0	0	0	1
Analyst/Programmer III	1	0	0	0	1
Assistant State Veterinarian	1	0	0	0	1
Chemist II	1	0	0	0	1
Chemist III	1	0	0	0	1
Chemist IV	1	0	0	0	1
Environ Conserv Mgr I	2	0	0	0	2
Environ Conserv Mgr III	1	0	0	0	1
Environmental Health Officer	0	0	0	1	1
Laboratory Technician	4	0	0	0	4
Microbiologist II	3	0	0	0	3
Microbiologist III	2	0	0	0	2
Research Analyst III	1	0	0	0	1
State Veterinarian	1	0	0	0	1
Totals	22	0	0	1	23