

Contaminant Monitoring and Incident Response Capability **FY2006 Request:** **\$1,500,000**
Reference No: **40550**

AP/AL: Appropriation **Project Type:** Health and Safety
Category: Health/Human Services
Location: Statewide **Contact:** Kristin Ryan
House District: Statewide (HD 1-40) **Contact Phone:** (907)269-7444
Estimated Project Dates: 07/01/2005 - 06/30/2010

Brief Summary and Statement of Need:

This project captures federal funding to build routine environmental monitoring, food supply surveillance, and incident response capacity for toxic chemicals and biological contaminating substances or agents. It contributes to the department's End Result #2 by protecting against unsafe food.

Funding:	<u>FY2006</u>	<u>FY2007</u>	<u>FY2008</u>	<u>FY2009</u>	<u>FY2010</u>	<u>FY2011</u>	<u>Total</u>
Fed Rcpts	\$1,500,000						\$1,500,000
Total:	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$1,500,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Additional Information / Prior Funding History:

None

Project Description/Justification:

This amendment adds a capital project to build routine environmental monitoring, food supply surveillance, and incident response capacity based on additional federal funds that are anticipated to be appropriated in FFY2006.

The State of Alaska Department of Environmental Conservation's new Environmental Health Laboratory in Anchorage is scheduled for completion 2005. The new facility will have space to accommodate the newest generation of analytical instruments and sample preparation technology. The laboratory will also employ an advanced information system to enable rapid and automated communication of testing results to decision makers.

Routine Surveillance of Environmental Samples

The Department is deeply involved in routine monitoring of environmental and food samples for trace level toxic chemicals. The types of samples monitored include drinking water, ground water, soil samples, air samples, and foods, including subsistence foods. Examples of the types of toxic chemical compounds monitored by the Department include:

- Petroleum Hydrocarbons
- PCBs, PBDEs
- Polyaromatic Hydrocarbons
- Pesticides, Herbicides
- Dioxins/Furans
- Volatile and Semivolatile Organics
- Metals, including Mercury, Arsenic, Lead, and other heavy metals.
- Chlorinated solvents

The presence of these compounds in food, water, air or soils is a serious health concern.

Analysis of these compounds in the food supply and the environment requires sophisticated analytical technologies including Gas Chromatography, Mass Spectrometry, Ion chromatography, ICP, and various other techniques.

At present the Department does not have the necessary equipment to perform these complex analyses. Acquisition of these technologies will enable the laboratory to routinely perform these analyses in support of the various environmental and food safety programs supported by the Department.

Chemical Incident Response

The sociological and economic impact of a chemical incident from a natural or man made disaster in the Alaskan environment or to the food supply would be devastating. The State of Alaska has a responsibility to maintain the necessary chemical and biological testing capabilities to support incident commanders' decision making to mitigate these disasters.

Appropriate decision making is dependent upon the ability of incident commanders to obtain the right information, quickly. The State of Alaska does not have the necessary analytical tools to perform rigorous analytical determinations on environmental samples suspected of containing chemical and biological contaminating substances or agents. Environmental and/or food samples suspected of containing contaminants must be shipped out of state for rigorous analysis. This process can take weeks or even months to complete.

Examples of the advanced analytical techniques to be added include: Inductively Coupled Plasma/Mass Spectrometry, High Performance Liquid Chromatography/Tandem Mass Spectrometry, High Resolution Gas Chromatography/High Resolution Tandem Mass Spectrometry, Time of Flight Mass Spectrometry, among others. These tools will enable the Environmental Health Laboratory to characterize the full range of hazardous and/or toxic compounds in ranging from a terrorist attack to an environmental incident.