

Fairbanks Northstar Borough - Air Quality Mitigation

FY2013 Request: \$2,500,000

Reference No: 54871

AP/AL: Appropriation
Category: Health/Human Services
Location: Fairbanks Areawide

Project Type: Life / Health / Safety
Recipient: Fairbanks North Star Borough
House District: Fairbanks Areawide (HD 7-11)

Impact House District: Fairbanks Areawide (HD 7-11)

Contact: JoEllen Hanrahan

Estimated Project Dates: 07/01/2012 - 06/30/2017 **Contact Phone:** (907)465-2500

Brief Summary and Statement of Need:

This project will provide funding for air quality analysis, emission mitigation, and energy source conversion in the Fairbanks Northstar Borough. This project will help determine the air pollutant contribution from mobile and stationary sources, document potential high concentration areas and their causes, and remedy those pollutants from the community in the most efficient way possible.

Funding:	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>	<u>FY2017</u>	<u>FY2018</u>	<u>Total</u>
Gen Fund	\$2,500,000						\$2,500,000
Total:	\$2,500,000	\$0	\$0	\$0	\$0	\$0	\$2,500,000

<input type="checkbox"/> State Match Required	<input checked="" 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:

Project Description/Justification:

The Fairbanks Northstar Borough, in collaboration with the State of Alaska, is continuing to work towards minimizing emissions and improving air quality in the Borough. This funding will be used to identify as well as remedy pollutant sources and improve air quality in the most efficient and effective ways possible.

This project will also include continued work on the wood stove conversion program. This program allows Fairbanks Northstar Borough residents to remove, replace, or repair their unqualified solid fuel wood burning device (wood stove or boiler) with a Borough qualified solid fuel wood burning device.

The State and Borough are working together to identify sources of particulate matter (PM) 2.5 emissions, work to minimize those emissions, and ensure containment. Wood stoves and fire boilers are significant sources of PM 2.5 emissions, and studies completed by the Borough show that over 20% of homes located in the Borough's "urban core" use wood stoves as their primary winter heat source, and approximately 80% use wood stoves as their secondary heat sources.

Some possible solutions may be to replace out-of-date, inefficient, and polluting wood stoves with

more efficient models. The Environmental Protection Agency (EPA) has found that upgrading wood stoves with EPA-certified wood stoves increases energy efficiency by 50%, stoves use 1/3 less wood, and PM 2.5 emissions are reduced by 55-70%. According to the EPA, replacing one inefficient wood stove has the same reductions of PM 2.5 emissions as taking five diesel buses off of the road. Other options may be identified at a later time.

Fairbanks currently experiences 25 - 30 days per year with measured PM 2.5 concentrations. Excessive PM 2.5 concentrations are linked to increased human health issues. Diesel and gasoline powered vehicles are among the suspected emission sources.