

Agency: Commerce, Community and Economic Development

Grants to Municipalities (AS 37.05.315)

Grant Recipient: Fairbanks North Star Borough

Federal Tax ID: 92-0030612

Project Title:

Project Type: Other

Fairbanks North Star Borough - Enhanced Home Heating Appliance Exchange Program

State Funding Requested: \$3,000,000

House District: Fairbanks Areawide (1-5)

One-Time Need

Brief Project Description:

Additional state funds are needed for the voluntary enhanced home heating appliance exchange program to reduce PM2.5 emissions in the borough in an effort to improve air quality and comply with EPA regulations. These funds would assist homeowners exchange their existing heating appliances for more fuel efficient and cleaner burning devices.

Funding Plan:

Total Project Cost:	\$9,500,000
Funding Already Secured:	(\$6,500,000)
FY2015 State Funding Request:	(\$3,000,000)
Project Deficit:	\$0

Funding Details:

The FNSB spent \$1,000,000 of its general reserve funds to begin the program in 2011 and received \$3,000,000 in State funding for the project in FY2011. In 2012 the FNSB received \$2,500,000 from the State these additional funds will continue the replacement program helping to reduce PM2.5 in the Borough.

Detailed Project Description and Justification:

In 2011, the FNSB provided \$1,000,000 in General Funds for the Voluntary Change-Out Program to further the effort to reduce PM2.5 emissions in the Non-Attainment area. In 2012, the FNSB received \$2.5 M from the State to for Air Quality mitigation. The Borough continues to address significant sources of PM2.5 emissions in the FNSB PM2.5 Environmental Protection Agency (EPA) defined Non-Attainment area. While the program is known informally in the community as the Wood Stove Change-Out Program, the program offers a reimbursement incentive to FNSB residents within the Non-Attainment area for removing any qualified solid fuel burning device (SFBD). The program defines an SFBD as a wood or coal stove; wood or coal-fired furnace; wood or coal-fired hydronic heater; or a fireplace insert. Devices that are exempt from the SFBD definition, and do not qualify for removal or replacement, are: pellet-burning appliances, masonry heaters, fireplaces, and cook stoves. This program has been extremely successful replacing, removing or repairing over 1000 stoves, furnaces or heaters.

According to the EPA, Particulate Matter (PM) is a "mixture of extremely small particles and liquid droplets." Air quality professionals pay attention to particulate matter because these very small particles can cause health problems when inhaled. Specifically, particles less than 10 micrometers in diameter can pass the nose and throat and enter the lungs.

For use by Co-chair Staff Only:

\$1,000,000
Approved

Size is important to understand because the EPA classifies particulate matter as two types based on size. Coarse Particulate Matter, experienced by most people in Alaska as dust, and Fine Particulate Matter, or PM2.5, which is less than 2.5 micrometers in diameter. PM2.5 is a product of combustion, primarily caused by burning fuels.

Fairbanks is surrounded by hills on three sides, and temperature inversions which trap a layer of cold air close to the ground, also trap PM2.5 emissions for days, even weeks at a time. Since fine particulates are products of combustion, burning more fuel when it is colder, be it fuel oil, wood, coal, waste oil or motor vehicle fuel, produces more PM2.5 emissions.

In 2008, the EPA listed portions of the FNSB as a Non-Attainment Area for PM2.5 emissions. (Please see Non-Attainment Boundary Map Attachment) As a result the State of Alaska, the Borough, and the EPA are collaborating to identify sources of PM2.5 emissions, and coordinating to reduce those emissions, to ensure attainment is achieved as quickly as possible. Wood stoves and boilers are significant sources of PM2.5 emissions, and recent studies completed by the Borough show that over 20% of homes located in the Borough's "urban core", which is within the EPA Non-Attainment Area, use wood stoves as their primary winter heat source and roughly 80% use wood stoves as their secondary heat sources. Roughly half of these stoves are inefficient, polluting, and non-EPA certified wood stoves.

The EPA reports 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%. Additionally, the EPA notes that changing out one inefficient wood stove has the same reductions of PM 2.5 emissions as taking five diesel buses off the road. (Please see attachments for detailed, current Voluntary Wood Stove Change-Out program information)

The FNSB is requested an additional \$3,000,000 in funding to complete change out for residents who submitted applications during the open application period.

Project Timeline:

The FNSB will immediately apply the funds to the Voluntary Wood Stove Change-out Program and will replace the stoves as fast as possible. The program is already in place and operating. Requested funding will assist homeowners who applied for change out during the open application period.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

FNSB will administer the program, homeowner will be responsible for their new stoves.

Grant Recipient Contact Information:

Name: Luke T. Hopkins
 Title: FNSB Mayor
 Address: 809 Pioneer Road
 Fairbanks, Alaska 99707
 Phone Number: (907)459-1300
 Email: lhopkins@fnsb.us

Has this project been through a public review process at the local level and is it a community priority? Yes No

For use by Co-chair Staff Only:

11:54 AM 5/13/2014

Air Quality Improvement Program Application Statistics

Total number of applications received since July 2010*				1916	
RECEIVED APPLICATIONS			CLOSED APPLICATIONS		
	Total	As % of total apps		Total Completed	As % of total apps completed
Accepted**	110	/ 5.7%	Replace Other SFBD	944	/ 73.6%
Closed	1282	/ 66.9%	Replace OHH	25	/ 2.0%
Verifications Pending	19	/ 1.0%	Remove Other SFBD	190	/ 14.8%
Waitlisted ***	24	/ 1.3%	Remove (and not replace) Outdoor HH	72	/ 5.6%
On Hold	14	/ 0.7%	Remove (and not replace) Indoor HH	15	/ 1.2%
Possible Transfers ****	66	/ 3.4%	Repairs	36	/ 2.8%
Denied	228	/ 11.9%			
Withdrawn Apps	169	/ 8.8%			
Non Responsive	4	/ 0.2%			
			Total	1282	

* This includes all applications for the original program, the enhanced program, and the current regular program.

** An application is marked as accepted once a purchase order has been printed and is in some stage of progress.

*** Waitlisted applications are currently located in the lowest 2 priority zones (which are outside the nonattainment area), and we are working towards accepting these applications.

**** These applications were placed on hold as a result of the old program coming to an end in December 2012 due to the passing of Prop 3. Applications were mailed out to each of these applicants as soon as they were available, and the majority were switched over into the new program.