





AIR QUALITY DIVISION

**MEMORANDUM**

TO: Fairbanks North Star Borough Assembly

THROUGH: Bryce Ward, Borough Mayor   
BW

FROM: Michelle Denton, Transportation Director   
MF

DATE: July 22, 2021

SUBJECT: Ordinance No. 2021 - 26  
Amend the Borough's Wood Stove Change Out Program to be consistent with federal grant requirements.

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Attached for your approval is a proposed ordinance, amending the voluntary Removal, Replacement, and, Repair Program and adding the voluntary No Other Adequate Source of Heat (NOASH) Reduction Program (collectively referred to as the Wood Stove Change-Out Programs)

As you are well aware, the Fairbanks North Star Borough (Borough) is dealing with a serious PM<sub>2.5</sub> air pollution issue with residential wood combustion identified as the largest contributing factor. One of the most effective control measures for residential wood combustion involves removing the highest polluting heating appliances and replacing with a lower polluting option, more commonly known as a change out program. Change out programs have a high cost but also a high return on investment. Federal funding for the change out program has been secured and this ordinance amends Borough code to be consistent with the federal funding requirements allowing for significant emission reductions over the next five years. By approving the proposed ordinance, you are enabling the Borough to take another step towards solving the PM<sub>2.5</sub> air pollution issue.

I request your consideration and urge your approval of this ordinance.

Attachment

**Signature:**   
Michelle Denton (Jun 23, 2021 10:02 AKDT)  
**Email:** michelle.denton@fnsb.gov

**Signature:**   
Bryce Ward (Jun 28, 2021 09:57 AKDT)  
**Email:** bryce.ward@fnsb.gov

By: Bryce Ward, Mayor  
Introduced: July 22, 2021

FAIRBANKS NORTH STAR BOROUGH

ORDINANCE NO. 2021 – 26

AN ORDINANCE AMENDING CHAPTER 21.28 FNSBC TO MODIFY FNSBC 21.28.040, ENHANCED VOLUNTARY REMOVAL, REPLACEMENT AND REPAIR PROGRAM, TO BE CONSISTENT WITH FEDERAL GRANT REQUIREMENTS, ADDING A BOUNTY PROGRAM TO THE ENHANCED VOLUNTARY REMOVAL, REPLACEMENT AND REPAIR PROGRAM AND ADDING A NEW SECTION FNSBC 21.28.046, VOLUNTARY NO OTHER ADEQUATE SOURCE OF HEAT (NOASH) REDUCTION PROGRAM

WHEREAS, The EPA, in December 2009, declared part of the Borough a non-attainment area for fine particulate pollution (PM2.5); and

WHEREAS, In the winter, PM2.5 concentrations in the non-attainment area routinely exceed the allowable limit, thereby violating the federal health-based standards; and

WHEREAS, Air quality issues could impact large-scale economic development, including military expansion; and

WHEREAS, Studies have identified wood burning as the largest contributor of PM2.5; and

WHEREAS, The State of Alaska Department of Environmental Conservation (DEC) adopted the Fairbanks PM2.5 Serious State Implementation Plan (SIP) on November 19, 2019 and amended the Serious SIP on November 18, 2020; and

AMENDMENTS ARE SHOWN IN LEGISLATIVE FORMAT  
Text to be *added* is underlined  
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32 WHEREAS, The Borough operated change out programs including the  
33 enhanced voluntary removal, replacement and repair program and the oil to natural gas  
34 or propane conversion program are included in the Serious SIP control strategies; and  
35

36 WHEREAS, The U.S. Environmental Protection Agency (EPA) has made  
37 \$14,717,265.00 available to the DEC; and  
38

39 WHEREAS, The DEC intends to pass through federal grant funds totaling  
40 \$10,367,821.76 to the Borough for the Borough's Voluntary Removal, Replacement and  
41 Repair Program and a new Voluntary NOASH Reduction Program; and  
42

43 WHEREAS, The programs modified and added by this ordinance are fully  
44 funded by Federal grants; and  
45

46 WHEREAS, Significant PM2.5 emission reductions will result from removal  
47 and/or replacement of Solid Fuel Burning Appliances (SFBAs) with either cleaner EPA  
48 certified SFBAs or non-SFBA alternatives; and  
49

50 WHEREAS, Successful completion of the NOASH reduction program will render the  
51 property ineligible for a DEC issued NOASH waiver.  
52

53 NOW, THEREFORE, BE IT ORDAINED by the Assembly of the Fairbanks  
54 North Star Borough:  
55

56 Section 1. This ordinance is of a general and permanent nature and shall  
57 be codified.  
58

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59 Section 2. FNSBC 21.28.020, Borough-listed appliances, shall be amended  
60 as follows:

61 A solid fuel burning appliance shall be listed by the borough if[:

62 A. T]the solid fuel burning appliance meets the requirements set by the Alaska  
63 Department of Environmental Conservation for new installation in the nonattainment  
64 area. [IS EPA CERTIFIED AS MEETING THE FEDERAL EMISSIONS RATE OF 2.5 GRAMS  
65 OF PM2.5 PER HOUR OR LESS, OR, FOR HYDRONIC HEATERS, IS EPA CERTIFIED AND  
66 HAS AN EMISSION RATING OF 0.10 POUNDS PER MILLION BTU OR LESS; OR

67 B. THE SOLID FUEL BURNING APPLIANCE IS A MASONRY HEATER OR COOK STOVE;  
68 OR

69 C. THE SOLID FUEL BURNING APPLIANCE IS TESTED, INCLUDING BY USE OF A  
70 HANDHELD OR OTHER PORTABLE DEVICE, BY AN ACCREDITED INDEPENDENT  
71 LABORATORY, OR OTHER QUALIFIED PERSON OR ENTITY APPROVED BY THE  
72 BOROUGH, ESTABLISHING THAT IT MEETS THE EMISSIONS RATE OF 2.5 GRAMS PER  
73 HOUR OR LESS.]

74  
75 Section 3. FNSBC 21.28.040, [ENHANCED V]voluntary removal,  
76 replacement, [AND] repair, and bounty program, shall be amended as follows:

77 The Fairbanks North Star Borough shall, to the extent funds are available and  
78 appropriated by the assembly, offer a[N ENHANCED] voluntary removal, replacement,  
79 [AND] repair, and bounty program to help offset the costs of removing, replacing or  
80 repairing a solid fuel burning appliance (SFBA) [OR FIREPLACE]. This program shall be  
81 subject to the following eligibility requirements, conditions, and criteria:

82 A. General Requirements.

83 1. Application. An application approved by the division and signed by all  
84 property owner(s) must be submitted along with any documentation required by the  
85 division. [APPLICATIONS FOR EITHER THE REMOVAL OF A SOLID FUEL BURNING  
86 APPLIANCE (SFBA), OR REPLACEMENT OF A SFBA WITH AN EMERGENCY POWER

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87 SYSTEM, OR AN APPLIANCE DESIGNED TO USE NATURAL GAS, PROPANE, OR HOME  
88 HEATING OIL, ELECTRICITY, OR HOT WATER DISTRICT HEATSHALL INCLUDE A SIGNED  
89 RECORDABLE DOCUMENT RESTRICTING FUTURE INSTALLATIONS OF SFBAS AND  
90 REQUIRING APPROPRIATE NOTICE TO PURCHASERS IN THE SELLER'S DISCLOSURE  
91 STATEMENT IF REQUIRED BY THE TERMS AND CONDITIONS OF THE FUNDING SOURCE.  
92 APPLICANTS MUST FULLY COMPLY WITH THE DIVISION'S INSPECTION PROCESS  
93 WHICH SHALL VERIFY THE EXISTENCE OF A QUALIFYING SFBA.]

94 2. Priority Ranking. Applications may be prioritized and may be limited by the  
95 division in its discretion based on geographical location, the overall air quality benefit and  
96 the type of SFBA [OR FIREPLACE] being removed, replaced or repaired.

97 3. Eligibility. The program is limited to properties within the [AIR QUALITY  
98 CONTROL ZONE BOUNDARY] nonattainment area in which a qualifying SFBA [OR  
99 FIREPLACE]is installed. An SFBA that was purchased with federal funds is not eligible for  
100 repair, replacement, removal, or bounty programs. If an application is approved for the  
101 program, the applicant will be given up to 90 days to meet all of the requirements.  
102 Applicants must have no delinquent property tax or penalty or interest owing at the time  
103 of application and at completion of the program requirements.

104 4. Additional Requirements. In addition to the general requirements set forth  
105 in this section, applicants must also meet the following requirements:

106 a. For the removal, replacement, repair, and bounty programs:

107 [A]i. Fully comply with the inspection process required by the  
108 division that shall ensure that the existence of the qualifying appliance to be removed,  
109 replaced or repaired is properly documented.

110 [B]ii. Removal of appliance, if applicable.

111 [C]iii. Delivery of appliance to an authorized decommission station,  
112 if applicable.

113 [D]iv. Certificate of destruction delivered to the division, if  
114 applicable.

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115  
116 v. Comply with all applicable local, state, and federal regulations,  
117 and meet all requirements of the funding source.

118 b. Additional requirements that apply to the removal, replacement, and  
119 repair programs:

120 [E]i. Final installation of a qualified appliance visually verified, if  
121 applicable.

122 [F]ii. The qualified appliance must be properly installed or repaired  
123 by a borough-listed installer attesting to proper installation of the device based on  
124 manufacturer's installation manual, compliance with any building code requirements, and  
125 that the device is properly sized for the building in question.

126 [G]iii. The applicant will be required to demonstrate proper wood  
127 storage, if applicable.

128 [H]iv. The applicant will be required to complete training with the  
129 vendor, ensuring that they understand how their particular device operates, including  
130 education on proper wood burning techniques, if applicable.

131 v. The applicant(s) shall sign a recordable document restricting  
132 future installations of SFBA's on the property and requiring appropriate notice to  
133 purchasers in the seller's disclosure statement if required by the terms and conditions of  
134 the funding source.

135 [I]c. All aspects of this section may be performed by borough-approved  
136 personnel or a borough-[APPROVED VENDOR]listed installer.

137 5. Payments. Applicants will be eligible for reimbursements or, at the option  
138 of the applicant, payment may be made directly to a borough-[APPROVED VENDOR]listed  
139 installer. Reimbursements and payments shall be available as follows:

140 a. Replacement of a hydronic heater:

141 i. With [EITHER AN EPA CERTIFIED] a borough listed wood or  
142 pellet stove [WITH AN EMISSION RATE LESS THAN OR EQUAL TO TWO GRAMS OF PM2.5

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143 PER HOUR, OR AN EPA CERTIFIED PELLET BURNING HYDRONIC HEATER WITH AN  
144 EMISSION RATE EQUAL TO OR LESS THAN 0.1 POUNDS PER MILLION BTU], or an  
145 emergency power system, up to \$10,000 per eligible hydronic heater for purchase and  
146 installation of the new appliance, including parts, labor, and other associated fees.

147 ii. With an appliance designed to use home heating oil  
148 (excluding waste or used oil) [OR A MASONRY HEATER (INCLUDING PARTS, LABOR AND  
149 ANY COSTS ASSOCIATED WITH UPGRADING THE CHIMNEY TO THE EXTENT REQUIRED  
150 BY THE MANUFACTURER OF THE APPLIANCE FOR PROPER INSTALLATION)], up to  
151 \$12,000 per eligible hydronic heater replaced for purchase and installation of the new  
152 appliance, including parts, labor, and other associated fees.

153 iii. With an appliance designed to use natural gas, propane, hot  
154 water district heat, or electricity, up to \$14,000 per eligible hydronic heater replaced for  
155 purchase and installation of the new appliance, including parts, labor, gas line, connection  
156 fees, and other associated fees.

157 b. Replacement of a non-[BOROUGH-LISTED]EPA Certified SFBA:

158 i. With [EITHER AN EPA CERTIFIED WOOD STOVE, OR  
159 FIREPLACE INSERT THAT HAS AN EMISSION RATE LESS THAN OR EQUAL TO TWO  
160 GRAMS OF PM2.5 PER HOUR] a borough listed wood stove[, OR IN THE CASE OF AN  
161 EPA CERTIFIED WOOD STOVE, PM2.5 EMISSIONS MUST BE REDUCED BY 50 PERCENT  
162 AND EMIT TWO GRAMS OF PM2.5 PER HOUR OR LESS], up to \$4,000 per eligible SFBA  
163 for purchase and installation of the new appliance, including parts, labor, permits, and  
164 other associated fees.

165 ii. With [AN EPA CERTIFIED] a borough listed pellet stove[THAT  
166 HAS AN EMISSION RATE LESS THAN OR EQUAL TO TWO GRAMS OF PM2.5 PER HOUR],  
167 up to \$5,000 per eligible SFBA for purchase and installation of the new appliance.

168 iii. With an appliance designed to use home heating oil  
169 (excluding waste oil), hot water district heat, electricity, [ OR A MASONRY HEATER  
170 (INCLUDING PARTS, LABOR AND ANY COSTS ASSOCIATED WITH UPGRADING THE

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171 CHIMNEY TO THE EXTENT REQUIRED BY THE MANUFACTURER OF THE APPLIANCE FOR  
172 PROPER INSTALLATION),] or an emergency power system, up to \$6,000 per eligible  
173 [NON-BOROUGH-LISTED] SFBA replaced [FOR THE] for the purchase and installation  
174 [OR]of the new appliance, including parts, labor, and other associated fees.

175                   iv.     With an appliance designed to use natural gas or propane, up  
176 to \$10,000 per eligible [NON-BOROUGH-LISTED] SFBA replaced for the purchase and  
177 installation of the new appliance, including parts, labor, gas line, connection fees, and  
178 other associated fees.

179                   c.     Replacement of an [BOROUGH-LISTED] EPA Certified SFBA:

180                   i.     With a borough listed wood stove that achieves 50 percent  
181 emission reductions, up to \$4,000 per eligible SFBA replaced for the purchase and  
182 installation of the new appliance, including parts, labor, and other associated fees.

183                   ii.    With a borough listed pellet stove that achieves 50 percent  
184 emission reductions, up to \$5,000 per eligible SFBA replaced for the purchase and  
185 installation of the new appliance, including parts, labor, and other associated fees.

186                   [I]iii. With an appliance designed to use home heating oil  
187 (excluding waste oil), hot water district heat, electricity or an emergency power system,  
188 up to \$6000 per eligible [BOROUGH-LISTED] SFBA replaced for the purchase and  
189 installation of the new appliance, including parts, labor, and other associated fees.

190                   [II]iv. With an appliance designed to use natural gas or propane, up  
191 to \$10,000 per eligible [BOROUGH-LISTED] SFBA replaced for the purchase and  
192 installation of the new appliance, including parts, labor, gas line, connection fees, and  
193 other associated fees.

194                   d.     Up to a maximum of three SFBAs [SOLID FUEL BURNING  
195 APPLIANCES OR FIREPLACES], or combinations thereof, may be replaced with a single  
196 non-solid fuel heating device or emergency power system that meets the requirements  
197 above. The reimbursement schedule for each individual device being replaced will be  
198 combined to determine the maximum possible final reimbursement amount, with final

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199 reimbursement not to exceed the actual purchase and installation cost of the new  
200 appliance.

201 e. Removal of a SFBA [(LIMITED TO A ONE-TIME PARTICIPATION IN  
202 THIS PROGRAM PER PROPERTY)].

203 i. Removal of a hydronic heater through a one-time payment of  
204 \$5,000.

205 ii. Removal of other SFBAs through a one-time payment of  
206 \$2,000.

207 f. Repair Program.

208 i. The repair program will pay for the:

209 (A) Replacement of a wood stove's catalytic converter that  
210 has exceeded its life span through the one-time payment of up to \$750.00.

211 (B) Replacement of any emissions-reducing component of  
212 an EPA certified wood stove up to the maximum amount of \$750.00.

213 ii. In addition to the general requirements set forth in this  
214 section, applicants must fully comply with any inspection process required by the division,  
215 which may be performed by a borough-[APPROVED VENDOR]listed installer.

216 g. Bounty Program (limited to a one-time participation in this program  
217 per property).

218 i. Removal of a qualifying SFBA heating appliance through a  
219 one-time payment of \$500.

220 ii. Up to a maximum of three qualifying SFBA heating appliances  
221 per property may qualify for the one-time participation.

222

223 Section 4. FNSBC 21.28.046, Voluntary No Other Adequate Source of Heat  
224 (NOASH) Reduction Program, is hereby added as follows:

225 The Fairbanks North Star Borough shall, to the extent funds are available and  
226 appropriated by the assembly, offer a voluntary NOASH reduction program to provide

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227 assistance to those with an inadequate or malfunctioning heating appliance(s) so that  
228 they no longer need or are eligible for an Alaska Department of Environmental  
229 Conservation (ADEC) NOASH waiver issued in accordance with the State Air Quality  
230 Control Plan Vol. II: III.D.7.12 Fairbanks Emergency Episode Plan.

231 A. General Requirements

232 1. Application. An application approved by the division and signed by all  
233 property owner(s) must be submitted along with any documentation required by the  
234 division. Applicants must fully comply with the division's inspection process which shall  
235 verify the existence of an ADEC-issued NOASH waiver and an inadequate, undersized,  
236 malfunctioning, and/or defective non-SFBA heating appliance.

237 2. Priority Ranking. Applications may be prioritized and may be limited by the  
238 division in its discretion based on geographical location, the overall air quality benefit and  
239 the type of SFBA eligible for an ADEC-issued NOASH waiver.

240 3. Eligibility. The program is limited to properties within the nonattainment  
241 area with an ADEC issued NOASH waiver with an inadequate, undersized, malfunctioning,  
242 and/or defective non-SFBA heating appliance. If an application is approved for the  
243 program, the applicant will be given up to 90 days to meet all of the requirements.  
244 Applicants must have no delinquent property tax or penalty or interest owing at the time  
245 of the application and at completion of the program requirements.

246 B. Additional Requirements. In addition to the general requirements set forth in this  
247 section, applicants must also meet the following requirements:

248 1. The inadequate, undersized, malfunctioning, and/or defective non-SFBA  
249 heating appliance must be serviced, repaired or replaced by a borough-listed installer  
250 attesting to proper installation of the device based on manufacturer's installation manual,  
251 compliance with any building code requirements, and that the appliance is properly sized  
252 for the building in question.

253 2. The applicant will be required to meet all applicable local, state, and federal  
254 regulations, and meet all requirements of the funding source.

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255 3. Any SFBA that will remain on the property after completion of the NOASH  
256 reduction program must meet the requirements for a four year NOASH waiver in Table  
257 7.12-5 of the State Air Quality Control Plan Vol. II: III.D.7.12 Fairbanks Emergency  
258 Episode Plan as amended and adopted 11/18/2020.

259 4. The SFBA that was eligible for the NOASH Reduction Program will be  
260 ineligible for future change out program funding.

261 5. Applications shall include a signed recordable document, enforceable by the  
262 agency with jurisdiction, restricting future installations of SFBA's and requiring appropriate  
263 notice to purchasers in the seller's disclosure statement.

264 6. All inspections required by this section may be performed by borough-  
265 approved personnel or a borough-listed installer.

266 C. Payments. Applicants will be eligible for reimbursements or, at the option of the  
267 applicant, payment may be made directly to a borough-listed installer. Reimbursements  
268 and payments shall be available as follows:

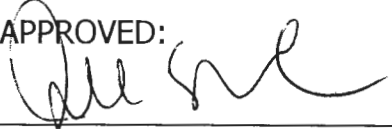
269 1. Service, repair, or replacement of a non-SFBA heating appliance, up to  
270 \$9,000 for parts, labor, and other associated fees.

272 Section 5. Effective Date. This ordinance is effective at 5:00 p.m. on the  
273 first Borough business day following its adoption.

274 ADOPTED THE \_\_\_\_ DAY OF \_\_\_\_\_ 2021.

278 \_\_\_\_\_  
279 Mindy O'Neall  
280 Presiding Officer

281 ATTEST:  
282 \_\_\_\_\_  
283 \_\_\_\_\_  
284 April Trickey, CMC  
285 Borough Clerk

281 APPROVED:  
282   
283 \_\_\_\_\_  
284 Jill S. Dolan  
285 Borough Attorney

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