

Fairbanks Air Quality Stakeholders Group Meeting Summary – June 5, 2018

The first meeting of the Air Quality Stakeholders Group was held on June 5, 2018, in the BP Design Theater at the University of Alaska Fairbanks. The meeting was attended by about 55 stakeholders, including primary and proxy members.

Mission and Ground Rules

Following the introduction of members, facilitator Brian Rogers reviewed the mission and ground rules for the group.

The mission of the Stakeholders Group is:

...to identify, evaluate and recommend community-based solutions to bring the area into compliance with federal air quality standards for fine particulates (PM_{2.5}).

The rules for participants were summarized as follows:

Be present. Put cell phones on silent or turn them off and put them away. If you must take a call, please leave the room.

Be respectful. One person at a time will be recognized to speak. Let the person speaking be heard; please don't interrupt or hold side conversations in the room. We expect disagreements; when you disagree, please do so without being disagreeable.

Be efficient. When you are the speaker, please minimize repetition of points already made by yourself or others. Use the microphone so all can hear you.

Stakeholders may have a proxy and between the two will be allowed up to one excused absence from the full meetings, after which an alternate stakeholder will be identified. Proxies are welcome to attend meetings as observers but can only participate when the primary participant is absent.

Voting will be using the *Instant Insights* response units to ensure that all participants who want to vote can do so and be counted.

- Official consensus will be defined as the total number of individual voting stakeholders in attendance minus 1.
- In the event the Stakeholders Group cannot meet official consensus, a two thirds super-majority of stakeholders in attendance will be required and the dissenting opinion(s) will be noted and included as part of the Stakeholders Group final recommendations.
- If neither consensus nor super-majority are reached, individual control measure recommendations and votes in favor/against will be provided to ADEC and EPA without a Stakeholders Group recommendation.

Knowledge Assessment

Stakeholders took an interactive knowledge assessment to assess the group's understanding of the PM_{2.5} air quality issues facing the community, including the timeline and next steps in the EPA's regulatory process triggered by Fairbanks' designation as a serious nonattainment area. Questions were based on the draft *Possible Concepts and Potential Approaches for development of the Fairbanks North Star Borough Nonattainment Area Serious State Implementation Plan*, released in March by Alaska Department of Environmental Conservation (ADEC). Overall, the level of understanding was high. Questions and results of the knowledge assessment are available on the

Stakeholders Group web page (<http://fnsb.us/transportation/Pages/stakeholders.aspx>).

One of just two questions missed by the majority of participants was whether increased availability of natural gas could help the community reach attainment by 2019. While natural gas will help reduce PM2.5 emissions, it will not be widely available soon enough to meet the EPA deadline for attainment. The other question missed by a slim majority of stakeholders was the number of households in the nonattainment area with a wood device as the sole heating source. The correct answer is 0 to 5% based on Fairbanks Home Heating surveys from 2011-2015.

Overview of EPA Regulatory Process

Following the assessment, Cindy Heil of ADEC provided a presentation that covered the EPA regulatory process, how we got here, technical information, overview of “best available control measures”, next steps, recommended approaches, and consequences of not meeting attainment. Slides are available on the Stakeholders Group web page.

Questions and Suggestions from Stakeholders

After lunch, stakeholders had an opportunity to ask questions and suggest ideas for alternative control measures to be considered by the group. Stakeholder questions and comments covered a wide variety of topics, including:

- Is there an ability to offer “trade offs” between control measures (Response: no formal process for offering trade offs; we have to provide justification. Quantitative data helps. DEC will try to work with whatever Stakeholders Group gives them.)
- Has DEC looked at what measures have been implemented elsewhere in the circumpolar artic? (Response: No, will look into it.)
- Energy efficiency is low hanging fruit. (Comment: We need to provide data to show contribution to attainment.)
- What are the constraints on funding these control measures? (Response: Funding is challenging. Options include device tax, surcharge, which can go to fund program efforts. There is no funding from the state. There may be measures that are eligible for grants in the future, but we must show data to be competitive)
- How did other communities get to attainment? Are there online sources of information? What are the differences in Fairbanks? (Response: The SIP has a lot of that type of information in it and data we can share.)
- Are there some measures approved by EPA already? (Response: Not exactly. We need to look at all 71 control measures with fresh eyes.)
- What are the strategies we are looking at; it’s important to look at what motivates people to change how they do things. How has the burn ban been working? What has helped it work? Or why is it not working? How can it be enforced? (Answers: Just as in the IM program, some people will comply, and some will put energy into how to evade the program. We may need different messaging. We are, working with Duke university at SIP workshop. We need to identify key behaviors, remove road blocks to make it easier for people to comply, and figure out what messaging works with the community.
- How do we do enforcement? What do you know about the problem causers? We need to target the outliers: ~100 devices/burners that are not complying with the burn bans. What is the number? (Response: We don’t know because we can only look at houses that are visible from a public driving way. We don’t know if that is a representative sample. We don’t know who has a wood stove and who doesn’t. We can’t answer that because we don’t have registration program. We can know exactly about point sources, because there are just a few of them, and they are regulated, but not the community sources. We know that some people are not honest in their responses to the home heating surveys. We don’t know if

saturation is an issue. To be blunt: [DEC is] being asked for data, results, information that we don't have and don't have a way to get.)

- Comment: This is a community-based group; part of our solution should be a part of continuing this community effort to increase success.
- What happened with the task force a few years ago separating Fairbanks and North Pole so funds could be more directed to North Pole? Fairbanks should reach attainment soon. It doesn't make sense if Fairbanks doesn't need [more control measures] and the real problem is North Pole. (Response: DEC pushed hard and filed formally requesting the split, but they are now working on letter to EPA to halt (not withdraw) the request to split the nonattainment area. The state office building site in Fairbanks is not a representative or maximum site. We must move the monitor, or come up with new one, which is very expensive and takes time. The State doesn't have the money and resources to put in a new monitor. DEC thinks the area will eventually be split, but it can't be split in time to meet the deadline. It will take one year to site the monitor and then you will need three years of data from the new monitor to get a new design value. In the meantime, grants can be targeted to North Pole. It is also likely for Fairbanks to come into attainment based on the new design value, since it will be in an area with higher emissions.)
- In regard to 2:1 emissions, is that applied to small points? (Response: Only majors.)
- Tax assessors are known to look in windows to find out more about a property. Can you do the same to determine who has a wood stove? (Response: [Air Quality program personnel] can't speak for assessments. They only look from public rights-of-way.)
- The problem in North Pole is the 5-mile area at the bottom of the freezer. Is there any special attention there? Can we look at areas like that and propose special measures for it? (Response: Yes. The sniffer program/saturation study: see where boundaries are. The saturation study and all data are online on the DEC website. We can also address through things like the change out program and enforcement.)
- How can we be confident that we are getting closer to the goal? Looking at trending HDD and price of heating oil, along with 3-year average, I am not certain we are moving toward attainment. (Response: The monitor is impacted by weather which we have no control over. That is why we have contingency measures. When we try to control for weather in the data, emissions appear to go down. The science is not perfect. We can only look at what is monitored and at models and trends.)
- [Question about special purpose monitors...] Some areas of Fairbanks are still a serious problem. (Response: All monitoring data is posted online. Special purpose monitors are showing higher results. The saturation study showed the issues in North Pole were a mosaic or patchwork. New technologies coming out regarding low cost monitoring. We don't know how these fits with EPA regulations.)
- Scientists at UAF using drones, working on circumpolar air quality project. What is the possibility of using drones to test air quality, compartmentalize areas, focus on smaller areas, sub-communities. (Response from DEC: Everything is on the table. Response from academic stakeholder: Drones are not used a lot because of flight regulations. UAF is hoping to get flight permission.)
- What happens if federal PM_{2.5} limit changes to 25 ppm. Does our SIP lock us in at 35ppm? Do we think they would go to 25 ppm? (Response: If regulations change to 25, we do 25. This would make a lot of other places have violations. We don't know if they will go there. At the [recent] air quality conference, Cindy from DEC was "blown away" by the number of studies on PM_{2.5}. It is the major pollutant of interest right now. The original scientific recommendation was lower than 35, but EPA is still at 35 ppm.)

- Please clarify process for this group to succeed. A 2/3 vote on control measures? What tools do we have to look at technical and economic feasibility? Do we have data on what is behind numbers for community economic costs? Those numbers are large, but maybe they are low. (Response from facilitator: Use other stakeholders as a resource. For example, get cost estimates from those who would be affected in the room. Response from DEC: For BACT costs, those are from a case-by-case review of point sources. We prefer specific vendor cost quotes, but we didn't get them. Best we could come up with based on data and tools we have.)
- How do we weigh public cost of private sector burdens? (Response from facilitator: Discuss in working groups. Some control measures have 2 and 3 order impacts, e.g. ULSD price inelasticity. Response from stakeholder: Cross pollination in working groups is good. E.g. Use of UAV drones to find outliers – biggest emitters.)
- Walk us through MSM and BACT some more. Initial cost estimate for BACT was \$54 million between all the point sources. The feedback is that that could be low. So, we have work there to do, but also I heard for the serious SIP we need to do the MSM through the end of the year. For precursors, could they go beyond SO₂? (Responses: We will have to look at same data that we did for the BACT for the MSM for all point sources and will get comments from EPA. Precursors need to be reevaluated.)
- No matter what you burn, energy efficiency helps everyone. Using less energy period. We should consider having an energy efficiency working group. (Response from stakeholder: One of EPA recommendations was weatherization. We don't know how energy efficient homes are. Look at data from Home Energy Rebate program and Interior Weatherization. Can help with economic drivers (of burning wood): less money spent regardless of what fuel source if energy efficiency is increased. Cold Climate ARIS database has a lot of data.)
- We should also have an education working group.
- What is the strategy for funding? What is our plan? Maybe a working group on funding, or discussion from panel on funding options or resources. (Responses: The costs [to the point sources] may be passed onto consumers. It's difficult to get money from the legislature due to the current fiscal crisis. There are targeted air shed grants available.)
- Are there models from other communities? What is the maximum number of wood stoves we can have to stay below the emissions threshold? Second question: We've seen an increase in people burning. Is it likely the boundaries of the nonattainment area will change in the near future in response to people moving outside the area to burn? (Response from EPA: We need better survey data to say who has wood stoves [and what the saturation limit is]. Our building codes are not strong in Fairbanks. We need to make [] mandatory. Response from stakeholder: We have building codes in city, but not outside the city. The Cold Climate Housing Research Center has been working on statewide energy efficiency code. Most builders are following AHFC codes to be eligible for AHFC funding. Borough has zoning powers. In the borough you need to have ten acres to install new wood stove/burner.)
- We have talked about enforcement, but what about the incentive approach? (Responses: Look at "behavioral economics." Wood stove change out is an incentive program that has been successful. Homeowner gets more money for replacing a dirtier system. We can't ignore enforcement, but we are willing to try more ideas for incentives.)
- We may have passed the incentive stage. [Measures] cannot be voluntary [if we are going to solve this]. (Responses: This group is not excluded from thinking about incentives. Also, if you don't know how well something will work, making a measure voluntary could be a good first step or stage. That doesn't mean we can't consider it. Example: Having a program to

- inspect wood stoves and give homeowners who pass a sign they can put in their window or yard saying they are doing everything right. It could have an impact.)
- We are focusing on what we're losing - our lifestyle, ways to heat our home, etc. I want to challenge us to think as a community about what are we gaining. Why do we live here? Every community has costs, some costs go up. We also get benefits. Focus on the reality of why we are choosing to live here in Fairbanks, what we want and what we are here for; discussion involves grief work, strategies to affirm values.
 - Could we get more funding for weatherization, through Interior Weatherization? (Response: We have limited resources, so it's great to partner with other organizations, team up. It takes additional resources to actually make that happen, so the borough will try to take a look.)
 - What counts in the SIP: programs with permanent aspects (like wood stove change out)? (Responses: Yes, deed restrictions, quantify reductions, things that can be accounted for in modeling and SIP. New reductions can't just offset another measure; can't be voluntary if we are going to count it, even though voluntary measures are still important. With 2013, we have a new baseline year, so change outs before that are part of the baseline. Can't count them.)

Stakeholders had 17 suggestions for potential new or alternative control measures. Each suggestion as well as those emailed by the public to airquality@investfairbanks.com will be reviewed by one of the work groups for possible inclusion in the SIP. Stakeholder suggestions:

- GVEA Emergency Tariff for electric heat during air quality exceedances
- Only sell dry firewood (Similar to 32)
- Require Electrostatic Precipitators
- Energy efficiency rebuild Incentive
- Limited Operating Schedules for Manufacturers
- Diesel Awareness around Monitors
- Tax Credits for Device Maintenance
- Clean Air Neighborhood Program
- C-PACE for Alaska
- Renewable energy loan on property tax
- Third party group between community and agencies
- Create Energy Policy for Alaska
- Dry for Wet Wood Exchange Program
- Increasing access year-round for wood cutting permit areas
- Easing home loan process for nine (?) star efficient homes
- Increasing disbursement of moisture meters
- Borrowing money on high energy center

Work Groups

Stakeholders broke into work groups for the remainder of the afternoon, choosing among: Point Sources, Wood Smoke Curtailment and Wood Space Heating Devices, Other Heating (Oil, Gas, Coal), Energy Efficiency, Education, Funding, Regulatory and Monitoring Process. Members of each group reported back to the full group with a summary of the discussion.

Adjourn

The meeting adjourned by 5:00 p.m.