



## ALPHA 2021 Resolution 2021-02

### Support for methods of reducing air pollution in the North Star Borough

**Whereas**, believing that air pollution describes the presence of harmful or excessive quantities of substances in the atmosphere including particles, gases, and biological molecules, both naturally occurring and anthropogenic;

**Whereas**, knowing that air quality standards were developed in the US to protect respiratory health, but decades of studies have shown exposure to air pollution causes oxidative stress and inflammation to the human body which can lead to cancer and chronic diseases such as asthma. Other studies established links between chronic exposure and development in children and developing embryos (<https://www.niehs.nih.gov/health/topics/agents/air-pollution/index.cfm>);

**Whereas**, believing that groups with higher risk from particle pollution include children, seniors, people with cardiovascular or respiratory disease (such as asthma and chronic pulmonary obstructive disease), people with diabetes, people of color, people who are obese, and current and former smokers (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7044178/>);

**Whereas**, knowing that residents of Fairbanks, Alaska are exposed to some of the highest levels of air pollution in Alaska and the United States;

**Whereas**, recalling that natural features of Fairbanks' environment lead to unhealthy amounts of air pollution in cold months including drainage of pollution to lowland (Tanana Valley) locations and the presence of temperature inversions due to extreme cold and lack of sunlight to mix the atmosphere;

**Whereas**, believing that during warm months high pollen levels have occurred, even at world record levels (birch pollen 5/11/2020) (<https://www.ktuu.com/content/news/Record-pollen-count-Alaskans-facing-an-itchy-allergy-season-570438341.html>); and fine particle levels from wildfire smoke affect the city at levels within US EPA's "hazardous" category for health-based standards

**Whereas**, knowing that the US EPA established a standard for particles smaller than 2.5 microns (PM<sub>2.5</sub>) based on studies showing fine particle pollution may trigger illness, hospitalization, and premature death and increase the risk of heart disease, lung cancer and asthma attacks. Ultra-fine particles (less than 0.1 microns) can even pass-through lung tissue and circulate in the blood stream;

**Whereas**, believing that the American Lung Association State of the Air 2020 report ranked Fairbanks as the fourth highest city for short-term (24-hour duration) particle pollution of 216 US cities and sixth highest among 204 cities for annual levels;

**Whereas**; believing that the EPA has classified the Fairbanks area as being in 'Serious' nonattainment for the criteria defined in the Clean Air Act,

**Whereas**, recalling that woodsmoke is a primary contributor to air pollution, particularly PM<sub>2.5</sub>, in the Fairbanks area;



**Whereas,** believing that most Fairbanks homes are not equipped for use of natural gas, which would produce less particle pollution and reduce homeowners' winter fuel costs;

**Whereas,** knowing that the Interior Gas Utility (IGU) has recently installed a large storage tank and is installing many miles of service lines in order to bring gas to more homes and businesses (<https://www.alaskapublic.org/2019/10/10/fairbanks-utility-says-new-natural-gas-storage-tank-will-support-system-expansion/>);

**Whereas,** aware that with a population of nearly 100,000, Fairbanks currently has 1,707 pediatric asthmatics and 6,791 adult asthmatics as well as 4,061 people with COPD and 55 people with lung cancer, as well 4,617 people with cardiovascular disease. 31,973 have a history of, or currently use, tobacco and 10,204 people in Fairbanks are older than 65. Even small improvements in air quality stand to benefit a wide range of people living in Fairbanks;

**Whereas,** knowing that improving the air quality in Fairbanks will address several of Healthy People Alaska 2030's public health priorities, including deaths from cancer (1), increased physical activity (6) and rate of preventable hospitalization (22).

**Now therefore be it resolved** that the Alaska Public Health Association supports the expansion of programs to:

- subsidize the exchange of inefficient woodstoves for cleaner and more efficient models and subsidize the exchange of oil burning appliances for natural gas burning appliances.
- support ongoing efforts to secure a stable supply of natural gas by expanding holding capacity and ensuring dependable transportation of natural gas to Fairbanks.

#### FISCAL AND PUBLIC HEALTH IMPACT

The cost to the Alaska Public Health Association of advocating a common sense approach to pollution in the Fairbanks area should be minimal. Advocating for awareness at the local, state, and federal level could help bring necessary investment in energy infrastructure to improve public health.

A spirit of fierce independence among many residents of the Fairbanks area has made implementing certain measures to improve air quality, such as issuing fines to flagrant polluters, impossible, as residents passed Proposition 4 in 2018

([http://www.newsminer.com/news/local\\_news/fairbanks-voters-ok-measure-limiting-boroughs-power-on-air-quality/article\\_8f53821a-c6de-11e8-a28b-e31a93082c5a.html](http://www.newsminer.com/news/local_news/fairbanks-voters-ok-measure-limiting-boroughs-power-on-air-quality/article_8f53821a-c6de-11e8-a28b-e31a93082c5a.html)).

This necessitates a subsidy-based model for improving air quality, but securing much funding at the local level is likely to be difficult. In addition, although it helped fund the new LNG tank in Fairbanks by securing loans through the Alaska Industrial Development and Export Agency and additional tax credits, the state of Alaska may be unlikely to be willing to contribute much more to the effort, as tax revenues are suffering from ongoing low oil prices. The Federal government could be amenable to contributing funding to aforementioned subsidy programs. There are a number of national entities with an interest in improving air quality in Fairbanks, including the

Army, which has approximately 7,200 soldiers and 6,500 family members stationed at Fort Wainwright. Outreach to interested groups could frame the problem as an issue of national security, since the thawing of the Arctic has catalyzed a new Cold War among global powers interested in exploiting newly accessible resources, including the Northwest Passage. Since Fairbanks represents an important military logistical resource, making it a livable and healthy place should be a priority for the United States government. Subsidizing economic activity in Fairbanks can help lower the cost to the Federal government of maintaining a military force in the area by increasing economies of scale. In addition, lower particulate levels will allow the EPA to grant permits for projects in the Fairbanks area which could cause air pollution.

Funding for smaller projects can be pursued from the EPA through grants.gov. Employees of the Fairbanks North Star Borough could be provided assistance in identifying and applying for grants. Most importantly, our national congressmen should be informed of the importance of pursuing funding options with their colleagues on Capitol Hill. Ideally, they should be contacted by a range of experts in health, energy, air quality and military strategy with a united message describing the importance and ideal approach to finally reigning in air pollution in Fairbanks.

## References

National Institute of Environmental Health Sciences. (2020).

<https://www.niehs.nih.gov/health/topics/agents/air-pollution/index.cfm>

Manisalidis, I., Stavropoulou, E., Stavropoulos, A., & Bezirtzoglou, E. (2020). Environmental and Health Impacts of Air Pollution: A Review. *Frontiers in Public Health*, 8, 14.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7044178/>

Sokaitis, C. (2020). KTUU. Record pollen count, Alaskans facing an itchy allergy season.

<https://www.ktuu.com/content/news/Record-pollen-count-Alaskans-facing-an-itchy-allergy-season-570438341.html>

Ellis, T. (2019). Alaska Public Media. Fairbanks utility says new natural gas storage tank will support system expansion. <https://www.alaskapublic.org/2019/10/10/fairbanks-utility-says-new-natural-gas-storage-tank-will-support-system-expansion/>

Bohman, A. (2018). Fairbanks Daily News-Miner. Fairbanks voters OK measure limiting borough's power on air quality. [http://www.newsminer.com/news/local\\_news/fairbanks-voters-ok-measure-limiting-boroughs-power-on-air-quality/article\\_8f53821a-c6de-11e8-a28b-e31a93082c5a.html](http://www.newsminer.com/news/local_news/fairbanks-voters-ok-measure-limiting-boroughs-power-on-air-quality/article_8f53821a-c6de-11e8-a28b-e31a93082c5a.html)