

# CLEAR THE AIR, PATHS TO ATTAINMENT CONFERENCE



9/26/2016

## Air Quality Monitoring in the Fairbanks North Star Borough

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# Previous Year's Monitoring Efforts

- ▣ FNSB staff maintained 3 “Regulatory” and 3 seasonal “Special Purpose” monitoring sites located within the Air Quality Control Zone
  - Regulatory monitors operate year round, seasonal monitors typically operate during the winter season (October through March)
- ▣ Monitors sample numerous pollutants to include PM<sub>2.5</sub>, PM<sub>10</sub>, CO, SO<sub>2</sub>, NO, NO<sub>x</sub>, NO<sub>2</sub>, NO<sub>y</sub>, and O<sub>3</sub>



FNSB N CORE “Regulatory” Site



Relocatable “Special Purpose” Site

# Monitoring Changes in 2016

- ▣ “Regulatory Monitoring” responsibility was transferred from the FNSB to the State of Alaska Department of Environmental Conservation (DEC)
  - Regulatory Monitoring will only continue at 3 sites in the FNSB AQCZ
  
- ▣ FNSB is currently developing a “Low-Cost” monitoring plan
  - Monitors will be deployed this winter

# FNSB Monitoring In The Future

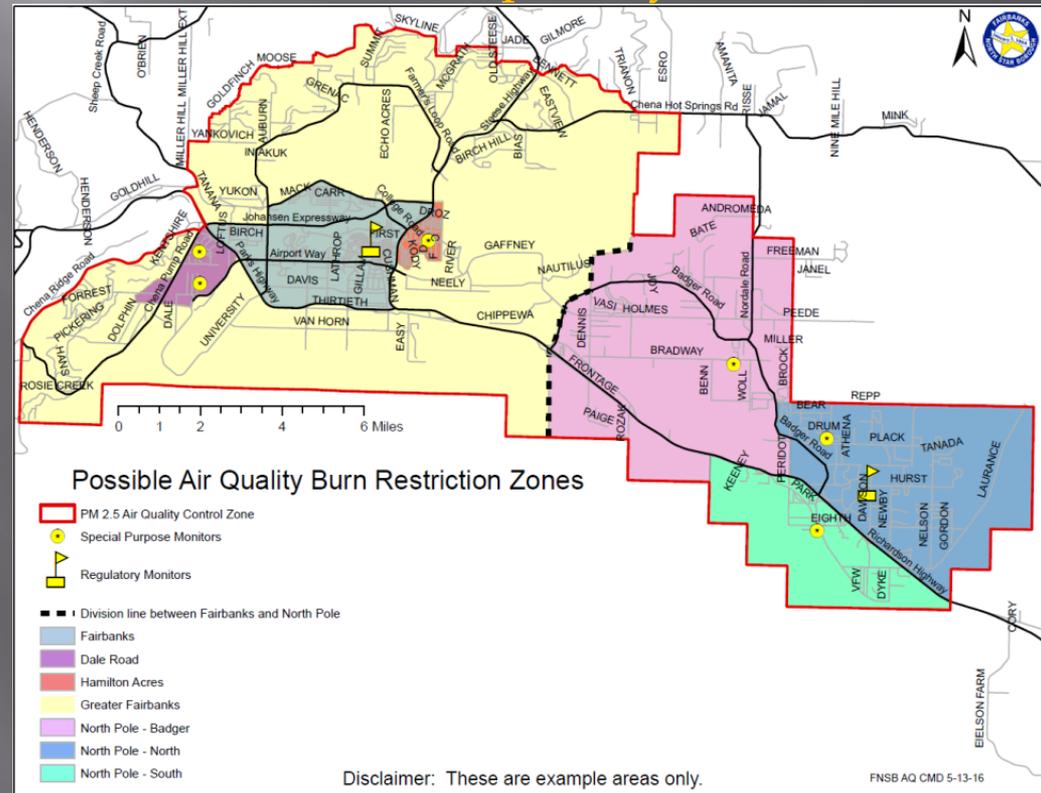
- ▣ FNSB Ordinance 2016-20-1A, July 28<sup>th</sup>, 2016
  - Appropriated funds for a “low cost/non-regulatory” monitoring plan
  - Monitoring will be mitigation directed
  - “Hotspot Areas” will receive added attention
  - 6 real time monitors will be used to inform the public of localized AQ conditions
    - Monitors will give us a better understanding of localized pollution levels
  - 20 neighborhood monitors will be used to saturate hotspot zones
    - Monitors will trigger staff response/investigations when concentration values trend higher

# Low Cost Monitors

## Thermo-Scientific PDR-1500

- Hourly updates to the FNSB Air Quality webpage
- Will be placed in 6 separate areas in the Air Quality Control Zone
- Can be used to more accurately target burn restriction areas

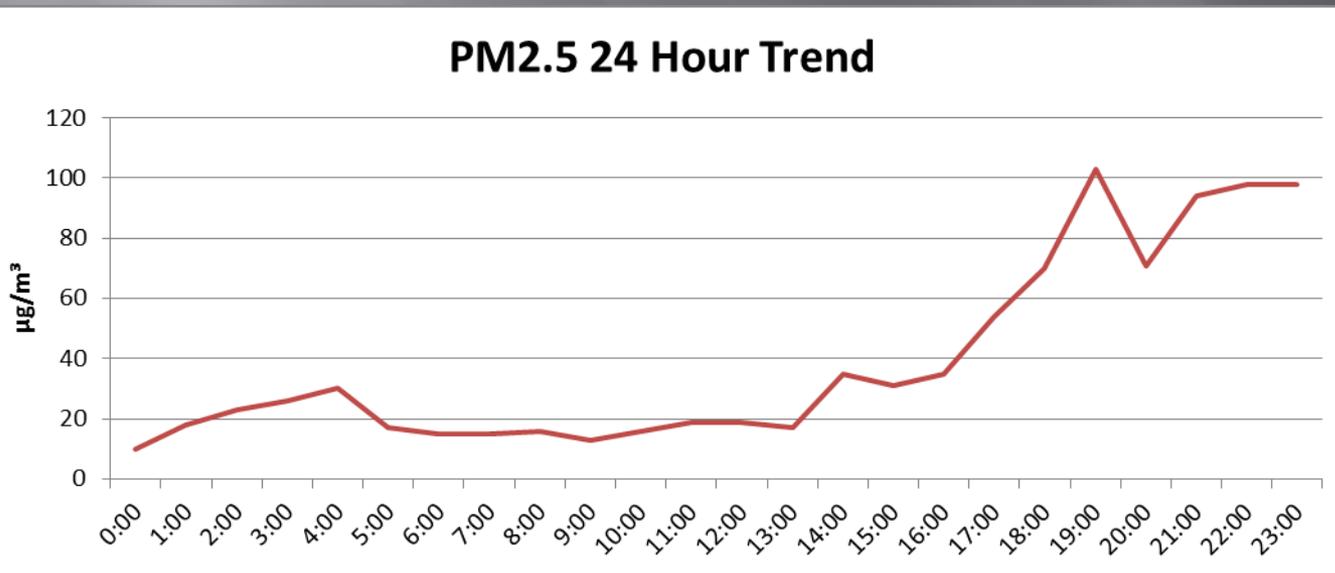
Example only



# Low Cost Monitors

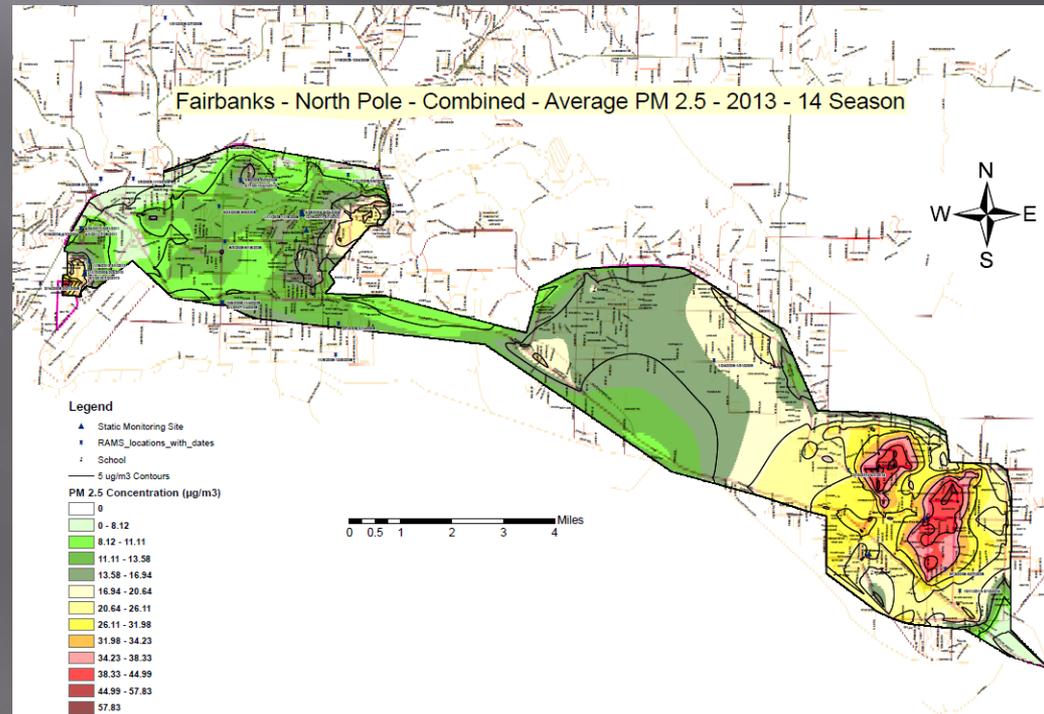
## MetOne Neighborhood Monitors

- Will be used to saturate 2 separate Hotspot neighborhood areas at a time
- A total of 20 monitors (10 per neighborhood) giving hourly concentration values to FNSB Air Quality Staff
- Elevated PM<sub>2.5</sub> concentrations will trigger FNSB Air Quality staff response to investigate the emission source
- Engagements will result in additional Education/Outreach opportunities as well as official warnings or citations



# Mobile Monitoring

- The FNSB uses 2 mobile sniffer platforms
  - Vehicles are used for Complaint Investigations and Response as well as the Hotspot Identification Program
  - Both vehicles are capable of collecting “Real-time” PM<sub>2.5</sub> concentrations



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# Questions?