

Air Quality in Anchorage

- The Anchorage Air Quality Program is administered through the Anchorage Department of Health and Human Services.
- Pollutants of concern are
 - > CO
 - > PM-10 (e.g., dust)
 - > PM-2.5 (e.g., smoke)
 - > Lead
 - > +/-Benzene

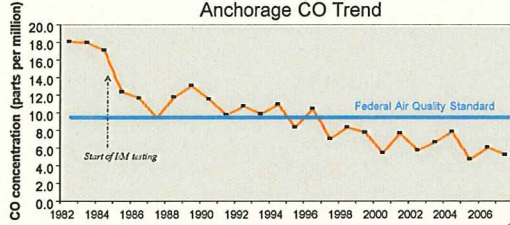


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Carbon Monoxide

- Source: Vehicle emissions
- Anchorage has not violated federal air quality standards since 1996.

Anchorage CO Trend



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I/M Program

Anchorage vehicle emissions inspection program

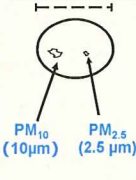
- Created in the mid-1980s to get control of air pollution and bring the city into compliance with federal air quality standards.
- Requires vehicle emissions systems inspections as a condition of registration.
- Anchorage carbon monoxide (CO) readings declined significantly after the onset of the program.
- Anchorage has not violated federal CO standards since 1996; projections are good through 2022.
- Newer vehicles are cleaner than those of prior years; the vast majority of vehicles now pass testing without problem.
- In April, Anchorage Assembly voted to end the I/M program, which discontinue in the next 1-2 years.



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Particulate Matter

Width of human hair



PM₁₀
(10µm)

PM_{2.5}
(2.5 µm)

Typical PM₁₀ sources

- Dust from paved and unpaved roads
- Volcanoes, windblown glacial silt

Improper sweeping on paved road

Typical PM_{2.5} sources

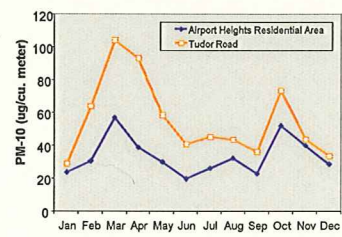
- Wild fires
- Diesel exhaust
- Fireplaces, wood stoves

Wild fire

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Particulate Matter

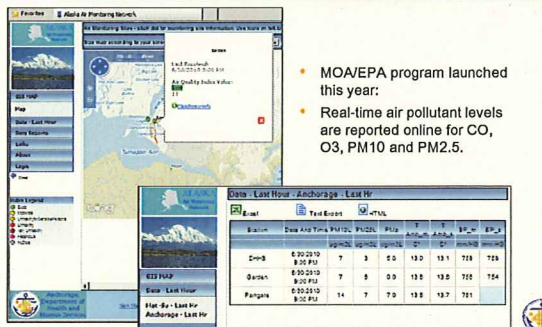
Anchorage PM₁₀ peaks during break-up and freeze-up. Highest levels are near major roads.



- Anchorage PM₁₀ concentrations sometimes exceed federal standards.
- PM_{2.5} concentrations are almost always well below federal standards.

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Real-Time Monitoring



- MOA/EPA program launched this year.
- Real-time air pollutant levels are reported online for CO, O₃, PM₁₀ and PM_{2.5}.

| Station | Date And Time | PM10 | PM2.5 | CO | O ₃ | SO ₂ | NO _x |
|----------|---------------|------|-------|-----|----------------|-----------------|-----------------|
| Donoh | 6:00:00 AM | 7 | 3 | 0.0 | 18.0 | 13.1 | 758 |
| Donoh | 8:00:00 AM | 7 | 3 | 0.0 | 18.0 | 13.0 | 758 |
| Pangloss | 6:00:00 AM | 14 | 7 | 7.0 | 18.8 | 18.7 | 751 |


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In Summary

- Anchorage is having a difficult budget year
- Cities must take the lead in sustainability
- Cities need help from their regional & national governments
- Two new Alaskan energy laws will help Anchorage
- Anchorage is working hard on energy efficiency
- Energy Services Performance Contracting is a new way to pay for upgrades
- We've made progress in air quality
- Anchorage is proud to be a member of WWCAM

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Unique challenges



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