

### Existing Conditions

The EPA monitors air quality using six pollutants: carbon monoxide (CO), particulate matter (PM), lead (Pb), sulfur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>), and nitrogen dioxide (NO<sub>2</sub>). EPA has established National Ambient Air Quality Standards (NAAQS) for each of the six identified pollutants. The standards are identified as “primary” for protection of public health and “secondary” for protection of other aspects of public welfare. The NAAQS represent maximum concentrations above which adverse effects on human health may occur. Areas where target pollutants persistently exceed respective NAAQS are often designated non-attainment areas. Typically, EPA assigns non-attainment status to an area after air quality standards have been exceeded for several consecutive years.

The majority of the Anchorage Bowl was declared a non-attainment area for CO when the 1990 Clean Air Act Amendments were implemented. Since then, the CO levels in the Anchorage Bowl have been decreasing, and levels have not exceeded the NAAQS since 1996 (MOA 2004). Anchorage is now considered in compliance with federal CO standards and is considered a CO maintenance area. The Air Quality Maintenance Area boundary is shown in Figure 3.1. The project area is located within this boundary.

As a maintenance area, Anchorage must have an approved state implementation plan (SIP) to ensure the area does not revert to non-attainment status. The SIP requires the development of a regional CO emissions budget. In 2006, the estimated motor vehicle emissions level was below the allowable emissions budget.

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#### **What is the Clean Air Act?**

The Clean Air Act of 1970 (42 U.S. Code 7401 et seq.) was enacted to protect and enhance air quality and to assist state and local governments with air pollution prevention programs.

Under the Clean Air Act Amendments of 1990, USDOT cannot fund, authorize, or approve federal actions to support programs or projects that are not found to conform to the Clean Air Act requirements.

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#### **What is a non-attainment area?**

A non-attainment area is a geographic area that has not consistently met the clean air levels set by EPA in the NAAQS.

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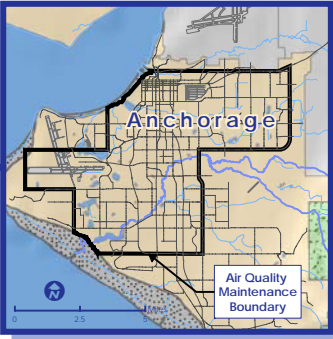


Figure 3.1 Air Quality Maintenance Boundary

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**What is a maintenance area?**

A "maintenance area" is the geographic region previously designated a non-attainment area, and subsequently redesignated to attainment. Designating an area as "maintenance" is a formal rulemaking process, and EPA takes this action only after monitoring data demonstrates the air quality standards are being met and a maintenance plan has been developed under Section 175A of the Clean Air Act.

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**What is a best management practice?**

A BMP is a policy, practice, procedure, or structure implemented to mitigate the adverse environmental effects resulting from development.

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## Environmental Consequences

Under the No Action Alternative, the CO emissions for the Anchorage Bowl will be higher than under the Proposed Action because of the expected increases in vehicle miles traveled (VMT) and vehicle hours traveled (VHT). Increases in these factors are associated with declines in air quality. Because federal emission standards for vehicles are expected to continue, it is likely that the projected motor vehicle emissions will be less than the existing emissions budget for Anchorage.

Air quality modeling shows that the Proposed Action would not exacerbate the severity of existing or create any new violations of the NAAQS. **For more information on air quality modeling, please refer to Appendix C.**

The Proposed Action is part of the Transportation Improvement Program, which conforms with the State Implementation Plan for Air Quality.

## Construction

Some short-term deterioration of air quality may be experienced during construction because of increased dust, emissions from construction equipment, the operation of portable asphalt batch plant operations, and the slower traffic speeds associated with a construction zone. This change in air quality would be a localized condition that would be discontinued when the project was completed. Dust and emissions from construction activities would be controlled in accordance with DOT&PF specifications.

## Mitigation and Authorizations

Contractors would follow best management practices (BMPs) to reduce dust emissions and unnecessary exhaust emissions from construction vehicles. BMPs would include the following:

- Airborne particles would be controlled as necessary by the application of water or other

controlled materials for dust suppression in accordance with established BMPs.