



# I-70 East

## Air Quality January 2016

### **Background**

Air quality analysis is the most comprehensive and complex component of CDOT's Final Environmental Impact Statement (EIS), comprising hundreds of pages in the document.

The Clean Air Act requires CDOT demonstrate that I-70 East, once completed, does not violate national health-based air quality standards set by EPA, worsen existing violations, or delay timely attainment of federally established standards. CDOT's analysis method was developed through an interagency consultation process with the Federal Highway Administration (FHWA), Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE).

CDOT is required to focus on three pollutants for which the Denver area is violating or has violated in the past: carbon monoxide (CO), particulate matter 10 microns or less in diameter (PM<sub>10</sub>), and ozone.

- Local "hotspot" analyses for CO and PM<sub>10</sub> have been updated in the Final EIS
- Ozone is evaluated by DRCOG at a regional level

CDOT also conducted emissions inventories for criteria pollutants, MSATs and greenhouse gases. This information is included in the Final EIS.

<b>Criteria pollutants</b>	<b>Mobile source air toxics (MSATs)</b>
Ozone (O <sub>3</sub> )	Benzene
Carbon monoxide (CO)	Formaldehyde
Particulate matter 10 microns or less (PM <sub>10</sub> )	Naphthalene
Particulate matter 2.5 microns or less (PM <sub>2.5</sub> )	Diesel particulate matter/Diesel exhaust organic gases
Nitrogen dioxide (NO <sub>2</sub> )	Acrolein
Sulfur dioxide (SO <sub>2</sub> )	1,3-Butadiene
Lead (Pb)	Polycyclic organic matter

### **Air Quality Analysis Findings in Final EIS**

By improving mobility and reducing congestion through increased capacity and reduced travel times, the Partial Cover Lowered Alternative (Preferred Alternative) is anticipated to generally improve air quality in the area compared to the “No-Action” Alternative.

Implementation of the Preferred Alternative meets all health-based air quality standards and is not expected to cause any new violations of any standard, increase frequency or severity of any existing violation, or delay timely attainment of the NAAQS.

All alternatives, including No-Action, will have emissions that are generally lower than existing emissions. This trend reflects the influence of new EPA emission standards on vehicles and trucks and, for the build alternatives, improvements to mobility and congestion.

The 4-acre cover over I-70 provides additional air quality benefits. Modeled receptors at Swansea Elementary School, which is directly adjacent to the cover, found that PM<sub>10</sub> concentrations are lower due to the presence of the cover.

### **Construction Emissions**

The selected Developer will be required to use construction equipment equipped with modern EPA-approved pollution controls or to retrofit their fleet to add these controls. CDOT plans to partner with the Regional Air Quality Council to provide a funding pool for pollution control retrofits.

Continuous PM<sub>10</sub> monitoring will be in place during construction. In addition, the contractor will be required to implement preventative dust suppression measures and additional measures that would be triggered should the monitors begin to show elevated PM<sub>10</sub> levels.

CDOT also has proposed a series of preemptive mitigation measures, including a new HVAC system, doors and windows at Swansea Elementary School along with interior storm windows and two air conditioning units with air filtration and assistance with the potential additional utility costs for residents living closest to the project area (between 45th and 47th Avenues from Brighton Boulevard to Colorado Boulevard).

For detailed information on the air quality analyses conducted, including methodology, results and emissions reduction strategies, please see Section 5.10, Air Quality, and Attachment J, Air Quality Technical Report, of the Final EIS (available at [www.i-70east.com](http://www.i-70east.com)).