Appendix F

Front Range Air Pollution and Photochemistry Experiment

While not focused on North Denver specifically, the goal of the Front Range Air Pollution and Photochemistry Experiment study is to characterize and understand summertime air quality in the North Front Range, in particular for ozone and pollutants that form ozone. A series of flights over the Front Range using C-130 aircraft will collect measurements to answer questions about surface ozone and emission controls. This study will occur in conjunction with at least two other studies planned for the area in the 2014-2017 timeframe. Combined, these studies are projected to cost $5 to $7 million and will provide valuable information regarding pollutant sources and their contributions to regional air quality.

Things learned from AQ studies:

- Significant differences exist in the levels of air pollution detected depending on the location of the air monitoring site and on the time of day air samples were collected. This suggests even measured air samples must be interpreted with caution (DEH 2008);

- Weather, especially trapped layers of air at the surface (i.e., temperature inversions), plays a significant role in the daily fluctuations of air pollutant concentrations (DEH 2008);

- Data from specialized real-time air monitoring allows us to see sources of air pollution that we can't see in combined air samples collected over a 24-hr period. For example, we can tell the difference between mobile sources vs. stationary or area sources, and see emissions from gas vehicles vs. diesel vehicles (DEH 2008).