



City of Coeur d' Alene
City of Post Falls
City of Hayden
City of Rathdrum
Coeur d' Alene Tribe
East Side Highway District
Idaho Transportation Department
Kootenai County, Idaho
Lakes Highway District
Post Falls Highway District
Worley Highway District

Cooperatively Developing a Transportation System for all of Kootenai County, Idaho

Date: February 5, 2009
To: Glenn Miles, Executive Director
From: Anna Ragaza-Bourassa,
Transportation Air Quality Planner
Subject: US 95 Access Study Air Quality Results

An air quality analysis was completed to assess the potential changes in pollutant emissions from vehicles on US 95 as a result of findings from the US 95 Access Study. Pollutant emissions for the recommended alternative, ALT-5 mitigated, was compared to that of existing conditions for three pollutants (VOC, NO_x, and CO).

In computing pollutant emissions for the US 95 corridor, two types of emissions were considered: idle emissions and running emissions. Idle emissions occur at roadway intersections when vehicles are stopped. Running emissions occur on roadways when vehicles are traveling. Total idle emissions were added to total running emissions for the PM Peak Hour for each pollutant (VOC, NO_x, and CO), which quantifies the expected change in mobile source pollutants for the US 95 corridor.

David Evans and Associates provided the VISUM networks necessary for the running emissions portion of this analysis. Running emissions were calculated using PM Peak hour data. The vehicle miles traveled (VMT) for each roadway link within the study area was multiplied by a running emission factor (in grams per mile) to yield a total running emissions for the existing condition and ALT-5 mitigated.

The idle emissions calculations were based on total delay data taken directly from the Figure 5-23 "Measure of Effectiveness" of the US-95 Access Study report. The total delay (in hours) for ALT-5 mitigated as well as the existing conditions was multiplied by an idle emission factor (in grams per hour) to arrive at a total idle emissions.

MOBILE6 was used to obtain emission factors. Because 2008 MOBILE6 emissions factors were not readily available for Kootenai County, equivalent emission factors for Spokane County were used instead.

KOOTENAI METROPOLITAN PLANNING ORGANIZATION

221 W. First Avenue, Suite 310 Spokane, WA 99201
1-800-698-1927 fax: 1-509-343-6400 website: kmpo.net

The results of the air quality analysis for the US 95 Access Study are presented in **Table 1** below.

Table 1 – Air Quality Results for US 95 Access Study

	PM Peak Hour		
	VOC (kg)	NOX (kg)	CO (kg)
Existing	147.3	135.0	2054.1
ALT-5 Mitigated	98.1	115.2	1666.7
Reduction	49.2	19.8	387.4
Percent Reduction	33.4	14.7	18.9

As shown above, the Ozone precursors, VOC and NO_x were reduced by 33.4% and 14.7% respectively during the PM Peak hour. Similarly, the reduction in CO during the PM Peak hour was 387.4 kg or 18.9%.

If you have any questions or concerns regarding this analysis please contact me at 343-6370 or annarb@srtc.org.

Sincerely,



Anna Ragaza-Bourassa