

3.e.i) Overview of On-Road Mobile Sources Inventories

The purpose of this document is to explain how the EPA emissions model MOVES2014 (March 2015 version), “Motor Vehicle Emission Simulator” and AP-42 Chapter 13.2 were used to create the PM₁₀ SIP on-road mobile source base year (2011) and projection years (2019, 2024, 2028 and 2030) motor vehicle emissions inventories.

The "baseline inventory" covered winter weekdays and winter weekend days in 2011. Metrological data was based on temperatures recorded during the corresponding PM₁₀ episode which took place from Wednesday, December 7, 2009 through Saturday, January 23, 2010 inclusive.

The baseline inventory covers the PM₁₀ SIP domain--the four most populated counties along the Wasatch Front in Utah (Davis, Salt Lake, Utah and Weber Counties).

These counties fall under the jurisdiction of a Metropolitan Planning Organization (MPO). Davis, Salt Lake and Weber Counties were modeled by Wasatch Front Regional Council (WFRC). Utah County was modeled by Mountainlands Association of Governments (MAG).

Projection-year inventories were created using the same method used to create the base-year inventory. Emissions for the baseline and projection-year inventories were expressed as per winter weekday and tons per winter weekend day.

EPA guidance requires that states create a mobile source inventory that uses the most recent available data for fleet characterization, transportation/traffic conditions, fuel parameters and meteorological data. Model development relied primarily on interagency consultation procedures to ensure the best mix of local and default MOVES2014 inputs.

Model development included discussions on the following topics: MOVES default database scale modifications, run specifications, County Data Manager input development utilizing local and default data, and output selection for air dispersion modeling. The following agencies provided MOVES modeling development through the interagency consultation procedures.

- EPA Office of Transportation and Air Quality: MOVES Team (OTAQ)
- Utah Department of Transportation Systems Planning & Programming: Traffic Analysis
- Utah Division of Air Quality (UDAQ)
- Utah Division of Motor Vehicles (UDMV)
- Mountainland Association of Governments (MAG)
- Wasatch Front Regional Council (WFRC)