Appendix A. MOVES Input Assumptions

Table A-1. MOVES Runspec Selections

Input Name	Selection
Scale	County
Calculation Type	Inventory
Time Spans	Analysis Years: 2017–existing, 2045–design year Time Aggregation: All hours, weekdays
Months of Analysis	January, April, July, October
Region	County
Geographic Bounds	Oregon, Multnomah County
Vehicles/Equipment	Diesel Fuel: combination long-haul truck, combination short-haul truck, light commercial truck, passenger car, passenger truck, single unit long-haul truck, single unit short-haul truck Ethanol (E-85): light commercial truck, passenger car, passenger truck Gasoline: combination short-haul truck, light commercial truck, passenger car, passenger truck, single unit long-haul truck, single unit short-haul truck Electric vehicles
Road Types	Urban restricted (highway), urban unrestricted (surface streets). Rural restricted, rural unrestricted, and off-network input will be excluded from runs.
Processes	CO_2e, roadway emissions only—running exhaust, crankcase running exhaust, evaporative permeation, and evaporative fuel leaks.
Pollutants	CO_2e, CO_2, NH_4, N_2O
Input Data Sets	Oregon LEV data set
Output	Units: grams, million Btu, miles Activity: distance traveled By: day, county, pollutant, road type

Notes: Btu = British thermal unit; MOVES = Mobile Vehicle Emission Simulator; CO_2e = carbon dioxide equivalent; CO_2 = carbon dioxide; NH_4 = Methane; N_2O = nitrous oxide

Table A-2. MOVES County Data Manager Inputs

MOVES Database Name	Data Source	Source File Name-Date
Vehicle Type VMT	Input files provided by Metro, except HPMSTypeYear file was developed for project by year and case	HPMSTypeYear_YEAR_CASE monthVMTFraction_OR-10/7/2014 dayVMTFraction_OR-10/25/2013 hourVMTFraction_OR-10/25/2013
I/M Programs	Input files provided by Metro	IMcoverage_2017_OR-3/17/2014 IMCoverage_2040_OR-3/19/2014 updated to 2045 analysis year
Road Type Distribution	Input files provided by Metro	RoadTypeDistribution_OR-12/18/2013
Source Type Distribution	Input files provided by Metro	SourceTypeDistribution_YEAR_OR-3/17/2014
Average Speed Distribution	Developed for project by year, road type and vehicle type for four daily periods	AvgSpeedDistribution_YEAR_CASE
Fuel	Input files provided by Metro	fuelSupply_YEAR_OR-11/21/2014 fuelFormulation_OR-11/21/2014 fuelUsageFraction_YEAR_OR-8/31/2016 fuelAVFT_OR-11/21/2014 fuelAVDT_OR_ZEV-8/19/2016
Meteorological Data	Input files developed from MOVES default data	zoneMonthHour_YEAR

Notes:
I/M = inspection and maintenance: MOVES – Mobile Vehicle Emission Simulator,
HPMS = High Performance Monitoring System
All input files remain unchanged between 2017 and 2045 except for the I/M program and files developed for the project.
It is assumed that the I/M program input will not change between the 2040 and 2045 analysis years, with the Metro 2040 input files used for the 2045 analysis.