

VisionEval (VE-RSPM)

The VisionEval framework is built on the following “GreenSTEP family” of models:

The **GreenSTEP** model was the first model in the strategic planning family, developed by the Oregon Department of Transportation (ODOT). ODOT developed the model to assist in the development of plans to reduce greenhouse gas (GHG) emissions from light-duty vehicles, to meet Oregon State statutory goals.

The **RSPM** (Regional Strategic Planning Model) was developed by ODOT as an offshoot of the GreenSTEP model to support the preparation of metropolitan area scenario plans. The name reflects a broadening of the policies, beyond state statutory requirements.

The RSPM model was initially developed to address the following factors:

- Changes in population demographics (age structure);
- Changes in personal income;
- Relative amounts of development occurring in metropolitan, urban and rural areas;
- Metropolitan, other urban, and rural area densities;
- Urban form in metropolitan areas (proportion of population living in mixed use areas with a well interconnected street and walkway system);
- Amounts of metropolitan area transit service;
- Metropolitan freeway and arterial supplies;
- Auto and light truck proportions by year;
- Average vehicle fuel economy by vehicle type and year;
- Vehicle age distribution by vehicle type;
- Electric vehicles (EVs), plug-in hybrid electric vehicles (PHEVs)
- Light-weight vehicles such as bicycles, electric bicycles, electric scooters, etc.;
- Pricing – fuel, vehicle miles traveled (VMT), parking;
- Demand management – employer-based and individual marketing;
- Car-sharing;
- Effects of congestion on fuel economy;
- Effects of incident management on fuel economy;
- Vehicle operation and maintenance – eco-driving, low rolling resistance tires, speed limits;
- Carbon intensity of fuels, including the well to wheels emissions; and
- Carbon production from the electric power that is generated to run electric vehicles.

VE Tools at Metro

The modeling work for the 2014 Climate Smart Strategy was conducted using GreenSTEP. In 2020 the City of Portland chose to use VE-RSPM to help inform their GHG plan. Several regional VE-RSPM scenarios were developed through this work for 2005, 2010, and 2020-2050 in 5 year increments. This work positioned the tool well to be used in the 2023 RTP to determine if that plan is meeting regional GHG targets.