

PSRC's Air Quality and Climate Change Work Program and Analyses

**TRB 1011 - A Marriage of Convenience: Partnering Greenhouse Gas and Air Quality
Management, Lessons Learned and Future Research Needs**
Thursday, January 21, 2021



Puget Sound Regional Council

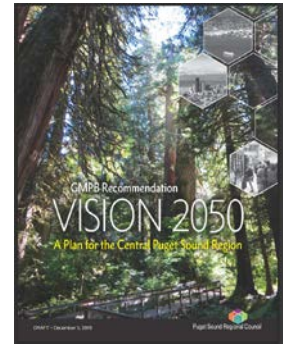
Who we are

- 4 counties, 82 cities and towns
- >4 million people, >2 million jobs



What we do

- Growth, economic, transportation planning
- Competitive distribution of federal transportation funds
- Regional data and forecasts
- Forum for regional issues



Overview of Air Quality and Climate Change Work

Policy Framework

- VISION 2050
- Regional Transportation Plan
- Project Selection

Analysis

- Environmental Impact Statement – VISION, RTP
- Four-Part Greenhouse Gas Strategy
- Transportation Conformity
- Project-Level Emissions



VISION 2050

- Policies and actions address reducing emissions – greenhouse gas and criteria pollutants – and the impacts from climate change
- Commits to regular analysis and evaluations as part of the 4-year Regional Transportation Plan cycle
- Commits to development of a “climate wedge analysis” for full spectrum comparisons
- Discusses impacts from climate change and resilience needs and activities



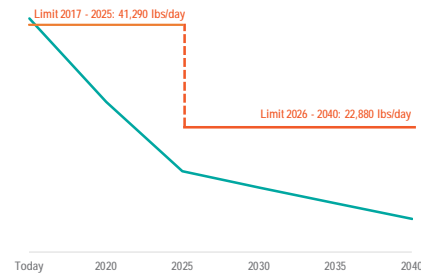
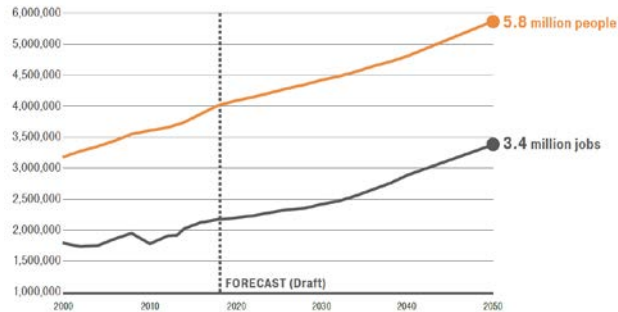
Climate / Air Quality Analysis

- PSRC's analysis focuses on on-road vehicle emissions, as influenced by the transportation system and land use patterns as guided by the Regional Growth Strategy
- *VISION 2050 addresses the growth patterns for the additional 1.8 million people and 1.2 million more jobs coming to the region between now and 2050*

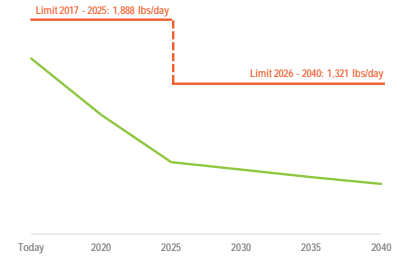


Regional Emission Trends

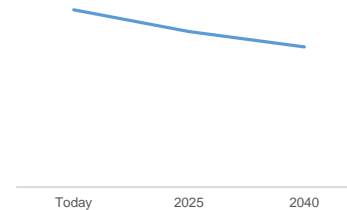
- The region is meeting all federal and state air quality standards
- Emissions continue to decline into the future, while population increases



Nitrogen Oxides

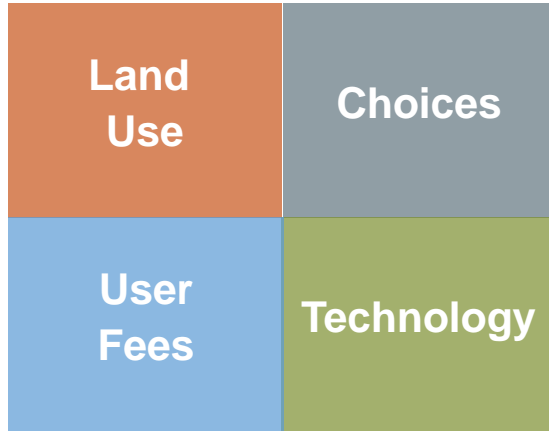


Fine Particulates



Carbon Dioxide Equivalents

Four-Part Greenhouse Gas Strategy



- Adopted Regional Growth Strategy, as expressed in adopted jurisdictional targets
- Regional integrated transit network, Active Transportation Plan, projects & programs
- RTP financial strategy, including express toll lanes, road usage charge, parking fees, certain facility tolls
- Fuel economy improvements, advancement of electrification, heavy duty vehicle improvements

Project Selection Process

- Competitive processes to distribute Federal Highway Administration and Federal Transit Administration funds
- Based on VISION 2050 and the Regional Transportation Plan
 - Policy focus = support for centers and the corridors that serve them
- Project evaluation criteria includes:
 - Supporting mobility, accessibility, safety, equity
 - Improving multiple modes or providing new modes, opportunities for active transportation
 - Emissions reduction included in all competitions



Project Selection Process

Air Quality / Climate Change criterion

- Evaluates the potential for each project to reduce reduces emissions from:
 - Reducing trips
 - Reducing vehicle miles traveled
 - Improving travel flow / reducing vehicle idling
 - Converting vehicles to cleaner fuels
- CMAQ projects only:
 - Air quality score based on cost effectiveness
 - $(\text{CMAQ } \$ \text{ requested} / \text{Useful life}) / \text{Emissions reduced}$



Project Selection Process

Emissions Tools and Guidance:

- Development of a resource guide for project sponsors
 - Background and data on emissions reduction potential for a variety of project types, scales
 - Based on project-level emissions analyses, CMAQ reporting
- PSRC's Project-Level Emissions Evaluation Tool
 - First developed in the 1990s
 - Current version updated in 2016, based on extensive research and updated regional and MOVES inputs



Project Selection Process

Application:

- PSRC staff estimate emissions reduction potential from every project
- Use data from applications and Project-Level Emissions Evaluation Tool
 - Specific and detailed questions on application depending on project type
- Pollutants analyzed =
 - CO₂, PM_{2.5}, NO_x, VOC, CO
- CO₂, PM_{2.5} used as “representative pollutants” in scoring process



Summary

- Air Quality and Climate Change are key elements in PSRC's planning and analysis work
- VISION 2050 = goals, policies and actions
- Analysis included at policy, plan and project level
 - Criteria and GHG emissions
 - Performance metrics, transportation conformity, project selection
- Continued work on GHG inventory / climate wedge analysis
- Update to project-level tool in 2021-2022



Thank you.

Kelly McGourty
Director of Transportation Planning
kmcgourty@psrc.org

