

**OREGON MODELING STEERING COMMITTEE**  
**Fall 2000-Fall 2001 ANNUAL REPORT**  
**DECEMBER 19, 2001 QUARTERLY MEETING**

This annual report summarizes the activities and accomplishments completed over the last year to accomplish the mission of the Oregon Modeling Steering Committee (OMSC).

**MISSION STATEMENT**

It is the mission of the Oregon Modeling Steering Committee to coordinate the land use and transportation modeling efforts of state, regional and local agencies, and to serve as a consensus forum and support group with the goal of improving the state-of-the-practice and promoting state-of-the-art land use and transportation modeling in the state of Oregon. The Committee cooperates with the Transportation Modeling Users Group. Integration of land use and transportation is a major focus of the Committee.

**MEMBERSHIP**

The Oregon Modeling Steering Committee (OMSC) is composed of technical and policy representatives of the following organizations (two technical representative positions are currently vacant awaiting new hires within the agency):

- Metro - Dick Walker/Keith Lawton
- Mid-Willamette Valley Council of Governments (MWVCOG) - Mike Jaffe/Richard Schmid
- Lane Council of Governments (LCOG) - Bud Reiff/Tom Schwetz
- Rogue Valley Council of Governments (RVCOG) - Craig Anderson/Dan Moore
- OR Department of Administrative Services-Office of Economic Analysis (OEA) - Dae Baek/Tom Potiowsky
- OR Department of Economic and Community Development (OECDD) - pending/Michael Burton
- OR Department of Environmental Quality (ODEQ) - Dave Nordberg/Annette Liebe
- OR Department of Housing and Community Development (OHCD) - Richard Bjelland/David Foster
- OR Department of Land Use and Conservation (DLCD) - Bob Cortright/Anna Russo
- OR Department of Transportation (ODOT) - Bill Upton/Jerri Bohard
- Federal Highway Administration (FHWA) - pending/Fred Patron
- Governor's Community Development Office (CDO) - Ronard Schaadt
- Southwest Washington Regional Transportation Council (RTC) - Shinwon Kim/Dean Lookingbill

The CDO and RTC joined the OMSC since the last annual report. The CDO requested to participate on the OMSC because of the OMSC focus on and success with agency and jurisdiction coordination. Southwest Washington was invited to join the OMSC because of its close coordination with the Portland Metro area and its substantial influence on

Oregon. When Bend and Corvallis are officially designated metropolitan planning organizations (MPOs) in 2002, they will be invited to join the OMSC.

## **ORGANIZATION**

The OMSC completes its work through standing and special topic subcommittees and through broad discussions at quarterly meetings of the full committee. A reevaluation of the committee structure in 2001 resulted in streamlining from five to the following three standing subcommittees:

- Long-range Strategy - Chaired by OMSC Chair, members include officers and standing subcommittee chairs. Responsible for annual work planning.
- Technical Services - Addresses technical model development, training and quality control.
- Performance Measures - Addresses the environment and criteria under which models are applied, i.e., regulatory requirements, general application. Focal point for peer review.

This structure will become functional in 2002. Communication will be considered part of the responsibility of each standing subcommittee. Standing subcommittees will prepare coordinated annual work programs for discussion at the first OMSC meeting in 2002. Ad hoc subcommittees will be identified through this annual work program effort.

The Long-range Strategy Committee sponsored preparation of a white paper to consider management organization options to pull together discussions on how to best provide services and retain quality staff for the Oregon modeling program. Several options were presented, ranging from status quo to creating a separate organization to include all modeling services in the state. This will be a long-term on-going discussion and no major changes were recommended.

ODOT and Metro prepared a white paper defining a joint annual work program to facilitate sharing of resources and specialists. This is a pilot program to explore how it will work for two agencies to develop a joint annual work program for modeling, including contracting and financial accounting. As this pilot project is implemented, it will be regularly evaluated and shared with the OMSC.

## **OMSC STANDING COMMITTEE ACCOMPLISHMENTS**

For this annual report period, the OMSC met four times - in November 2000, and March, June, and September 2001. Following are the accomplishments of each of the standing committees.

### **Education/Training - Dick Walker/Metro and Bill Upton/ODOT, Co-chairs**

Several training opportunities were requested and provided to OMSC members and others through 2001. Presentations of the Oregon program were also given to share Oregon's research and experience. An on-going program of preparing guidelines and analyses, using the OMSC for review and comment, continued.

- *Training opportunities:*
  - Doug Hunt and Paul Waddell conducted a four-day training program in several areas of transportation and land use integration.
  - ODOT staff conducted "Modeling 101" training for non-modelers.
  - Information was regularly provided on National Highway Institute (NHI) courses, including travel surveys and advanced travel demand forecasting.
  - DKS Associates prepared a training outline, identifying areas where training is needed and describing recommended classes.
  - The third international modeling symposium is being organized for July 2002.
  - A North American-European Land Use/Transport Integration Research Collaboration is expected to be launched at the July 2002 symposium. This will formalize discussions with modelers in other countries to develop a joint project to move the land use/transportation program forward at the micro and macro levels.
- *Requested training:*
  - ODOT Analysis Group to conduct a micro-simulation class in winter 2001.
  - ODOT and FHWA to develop a training program on surveys, especially for those who will do the work rather than just manage it.
- *Presentations:*
  - A Transportation Research Board (TRB) Planning Methods Conference was held in April in Corpus Christi, TX. Mike Gillette/ODOT, Brian Gregor/ODOT and Keith Lawton/Metro gave several papers on the Oregon modeling program.
  - An OMSC subcommittee is preparing an application to hold the Transportation Research Board Planning Methods Conference in Portland in 2005. The proposal will be presented at the TRB conference in Washington DC in January 2002.
- *Reports* were prepared by ODOT, for review and suggestions by the OMSC. These included:
  - Draft Statewide Congestion Overview of Oregon
  - Modeling Training Program
  - Strategic Plan for Development of new Modeling Tools
  - Modeling Protocol
  - Unified Planning Work Program strategy

**Technical Advocacy - Bill Upton/ODOT and Dick Walker/Metro, Co-chairs**

- *House Bill 3090 (HB3090)* - The 1999 legislature directed ODOT to look at potential routes to extend I-82 from Washington through central Oregon to determine whether a new freeway in central or eastern Oregon would reduce the demand on I-5 in the Willamette Valley. This was the second application of the statewide model and results were folded into the SMAP project (see ad hoc committees). The model showed that little change would occur to either Eastern/Central Oregon or the Willamette Valley if such a freeway were constructed.
- *Oregon Model Improvement Program (OMIP) Draft Strategic Implementation Plan (SIP)* - This is the first strategic plan to bring together all OMSC agencies and MPOs under one strategic plan. The SIP was based on interviews conducted with all policy

and technical OMSC members in 2000 and addressed modeling activities in Oregon over the next five years.

- *Joint Model Estimation* - This was a joint effort among the MPOs to combine survey data from all MPO regions and to estimate a model from that information. The joint model estimation project was validated by MPOs in 2001 and is now available for use. This project combined the best of each model in the Willamette Valley and brought all MPOs in line with best practices guidelines. It also helps in understanding and consistency review by FHWA since all models are similar. It saved time for development work because costs were not duplicated for each MPO.
- *Valley external model* - The joint model estimation was done for the non-MPO areas to serve as a placeholder until the Gen II software is complete. It uses local data from eight counties that are rural in nature to do estimation and calibration.
- *Population/Employment Projections* - OEA and the OMSC began discussions on ways to integrate processes to use the statewide model for Countywide projections. The statewide model is designed to do statewide forecasting including forecasting for transportation investment. ODOT and OEA are continuing discussion on how this can be used for comprehensive planning and to define how local and state agencies can work together to use the statewide model most effectively.
- *Executive Order 97-22* - A white paper was prepared to support modification of the Governor's Executive Order 97-22 that requires all jurisdictions to use State population and employment forecasts when state monies are used on a project. This Executive Order limits state agencies from letting the statewide model assign population and employment consistent with different policy applications. Federal regulations also require consideration of different forecasts for transportation infrastructure planning.
- *International Peer Review Panel* - This group met twice to review the applications of Generation I and the methodology of Generation II of the statewide model.
- *EPA Air Quality Model Mobile 6* - DEQ provided regular updates on the new EPA emissions model Mobile 6.
- *Policy Discussions* - The OMSC initiated discussion about how to change the environment so that decision-makers use the OMSC to support long-range planning and holistic decision-making as well as providing basic modeling services. This discussion will continue as the modeling program transitions from technical development to implementation.
- *Survey Results* - The 2000 Oregon Population Survey serves as an instrument for the Oregon Benchmarks program. The Oregon Progress Board prepares a report every two years which provides information on performance against the benchmarks. Members presented this information to the OMSC for consideration.
- *Research Topic Priorities* - The OMSC submitted the following four research proposals for funding by the ODOT Research Group. The Truck Trip O/D research received \$75,000 in funding.
  - Examination of the Relationship between Mixed Land Use and Pedestrian Travel
  - Determining Bicycle Route Desirability for Use in Estimating Bicycle Demand & Route Choice
  - Preplanning for a Longitudinal Panel Survey of Household Travel and Location Choices

- Collection and Analysis of Truck Trip Origin and Destination Information
- *EPA Research* - A letter of intent to apply for EPA grants for the Mixed Land Use and Bicycle Route proposals was considered but not pursued.

#### **Peer Coordination - Bud Reiff/LCOG, Chair**

- *Transit Forecasting* - RVCOG asked the OMSC for assistance in addressing differing transit ridership forecasts between Rogue Valley Transit District and RVCOG. The Subcommittee will evaluate the RVCOG forecasts and look for model parameters from other MPOs to get similar information from transit agencies, will develop correlations, compare with RVCOG forecasts and discuss reasonableness for RVCOG consideration.
- *TPR VMT Reduction* - The OMSC submitted a letter to DLCD in support of a request by LCOG for alternative measures to the Transportation Planning Rule vehicle miles traveled (VMT) reduction requirement.

#### **Communications, Nick Fortey/FHWA and Mike Jaffee/MVWCOG, Co-chairs**

- *FHWA Coordination* - To better engage FHWA in the statewide modeling effort in Oregon, a representative from FHWA headquarters attends the Peer Review sessions on the statewide model.
- *WVF ATF Recognition* - Oregon Transportation Commission Chair Steve Corey, formally recognized the excellent contributions to the Willamette Valley Livability Forum of all participants, including the Oregon Modeling Steering Committee.

### **OMSC AD HOC SUBCOMMITTEE ACCOMPLISHMENTS**

#### **Statewide Model Application Project (SMAP) - Bill Upton/ODOT and Dick Walker/Metro, Co-chairs**

This subcommittee brought together Willamette Valley MPOs, ODOT, and project sponsors to apply the statewide model to three projects: I-5 Corridor Study, I-5 Trade Corridor Study, and Willamette Valley Forum (WVF)/Alternative Transportation Futures Project (ATF). The SMAP participated in these projects within the I-5 corridor in different ways:

- *I-5 Trade Corridor Study* - SMAP provided a forum for coordination and information. Development and study of the alternatives did not use the statewide model but when alternatives are narrowed and disaggregation work is complete, the alternatives will be run through the statewide model to assess impacts outside the Metro area. This is intended to look at the broader ramifications of the selected alternative(s) and to further integration of the statewide and MPO models.
- *I-5 Corridor Study* - SMAP provided a forum for coordination and information. This project was terminated following identification of existing conditions and therefore did not use the statewide model for alternative scenario evaluation.
- *Willamette Valley Forum Alternative Transportation Futures Project (WVF ATF)* - The statewide model was run extensively to test eight different policy options for future development of the Willamette Valley. The SMAP provided review and recommendations on model output, performance measures, and policy alternatives. A

PowerPoint presentation and final report were prepared and are available from ODOT.

**Transportation Planning Rule (TPR) Review Subcommittee - Bud Reiff/LCOG, Chair**

- ***TPR VMT Reduction*** - The subcommittee reviewed what is being done for alternative measures to address the December 1998 amendments to the TPR. The subcommittee is developing alternative measures that do not require two separate models, one for TPR compliance and the other for transportation planning. Alternatives to the TPR VMT reduction requirement are also being considered.
- ***Urban design variables*** - The subcommittee identified over 100 urban design variables that could be entered directly into models and not require post processing. The intent was to provide accurate and consistent data on effects of mixed design. The design variables were evaluated for such things as explanatory power (i.e., auto ownership, mode choice), how difficult it is to develop, and how easily data can be obtained. The following categories were identified and several variables were listed for each category: *Accessibility, Balance, Bicycle-oriented, Connectivity, Crime, Diversity, Neighborhood design, Pedestrian, Transit-oriented development (TOD)*. Continuing work will include defining variables to be included in the joint estimation model.

**Model Documentation - Nick Fortey/FHWA and Dave Nordberg/DEQ, Co-chairs**

As emphasis increases on management and operation of the transportation system, more focus on environmental justice and other impacts of transportation projects will occur nationwide. If there is a legal challenge regarding air quality conformity, it will be at the MPO level. FHWA is seeing increased emphasis on Clean Air Act conformity analysis and documentation for Conformity Determinations is important if a lawsuit occurs. The OMSC is working toward developing a standard process for model calibration and validation, and is exploring funding to pursue this effort. This effort will try to parallel with FHWA headquarters to use information they are developing.

**Statewide and MPO Model Integration - Dick Walker/Metro and Bill Upton/ODOT, Co-chairs**

The Unified Planning work Program (UPWP) coordination effort continued this year. ODOT and all MPOs met to refine the joint UPWP prepared in 2000, to review anticipated and desired projects, to establish priorities, and to assign task leaders. This process developed by the MPOs and ODOT is unique and clearly identifies the interrelationships and connections of programs throughout the state.

**Longitudinal Panel Survey - Keith Lawton/Metro, Chair**

A white paper was prepared and preliminary plans completed to engage an expert panel to help define a longitudinal panel survey for Oregon. Instead of conducting behavioral surveys every five or so years, the longitudinal survey allows a look at changes in behavior and tracks the same household annually over time. An application for funding for the expert panel for the longitudinal survey was submitted to the Governor's Community Response Fund but budget limitations precluded funding approval. ODOT

subsequently provided funding for the panel to keep this project on schedule. The expert panel is expected to be convened in February or March 2002.

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