

OREGON MODELING STEERING COMMITTEE FISCAL YEAR 2007-08 ANNUAL REPORT

This report summarizes the activities completed in fiscal year 2007-08 (July 1, 2007-June 30, 2008) to accomplish the mission of the Oregon Modeling Steering Committee (OMSC). As this report transitions to a fiscal year annual report instead of a calendar year report, it also includes activities from Quarter 1 in 2007. This report summarizes progress on the five-year Strategic Implementation Plan completed in June 2002. All OMSC annual reports and its strategic plan are available on the ODOT website at <http://www.odot.state.or.us/tddtpau/modeling.html>

MISSION STATEMENT

It is the mission of the Oregon Modeling Steering Committee to:

- Improve the state-of-the-practice and promote state-of-the-art land use and transportation modeling in the state of Oregon.
- Serve as a consensus forum and support group to coordinate the land use-transportation modeling efforts of federal, state, regional and local agencies.

The following goals and objectives guide the OMSC in meeting its mission:

Goal 1: Support to Decision-makers – Provide technical information and analyses to support informed decision-making.

Goal 2: Communication and Coordination – Provide a forum for exchange of ideas and to encourage use of and share current and future technology

Goal 3: Technical Excellence – Support research, development and application of models at the local, regional and statewide level, to improve and expand capabilities, integration and use of transportation models statewide.

Goal 4: Education and Training – Proactively promote and educate modelers on the capabilities of transportation modeling as an analytical tool to support decision-making, through coursework, training, symposiums and case studies. Inform policy-makers of analysis as an objective technical support for decision-making.

Goal 5: Peer Coordination and Support – Serve as a technical and professional support group to members, agencies, local governments, consultants and others to further transportation modeling knowledge and expertise, and to maximize resources.

MEMBERSHIP

The OMSC is composed of technical and policy representatives of the following organizations. For 2007, the following representatives were members of the OMSC.

- OR Department of Administrative Services-Office of Economic Analysis (OEA) - Dae Baek

- OR Department of Economic and Community Development (OECDD) – John Gorlorwulu
- OR Department of Environmental Quality (ODEQ) - Dave Nordberg
- OR Department of Housing and Community Development (OHCD) - Richard Bjelland/David Foster
- OR Department of Land Use and Conservation (DLCD) - Bob Cortright
- OR Department of Transportation (ODOT) - Bill Upton/Brian Dunn
- OR Governor's Economic Revitalization Team (GERT) - Gabrielle Schiffer
- Portland Metro – Dick Walker
- Mid-Willamette Valley Council of Governments (MWVCOG) – Ray Jackson/Mike Jaffe
- Lane Council of Governments (LCOG) - Bud Reiff/Susan Payne
- Rogue Valley Council of Governments (RVCOG) - Matt Hermen/Dan Moore
- Corvallis Area Metropolitan Planning Organization (CAMPO) – Ali Bonakdar
- Bend Area Metropolitan Planning Organization (BAMPO) – Tyler Deke
- Southwest Washington Regional Transportation Council (RTC) - Shinwon Kim/Dean Lookingbill
- Port of Portland (POP) – Scott Drumm/Susie Lahsene
- Federal Highway Administration (FHWA) – Satvinder Sandhu/Jon Young
- Portland State University (PSU) – Robert Bertini/John Gliebe

ORGANIZATION

The OMSC completes its work through standing and special topic subcommittees and through broad discussions at quarterly meetings of the full committee (see graphic at end of report). The OMSC met three times in 2007 and twice in 2008 – April 18, July 18, October 17, 2007 and January 23 and April 16, 2008. There was no January 17, 2007 meeting because of weather.

The OMSC agreed that, rather than developing a formal work program, program goals would be developed to provide guidance for the OMSC and subcommittee chairs and no work program was completed for 2007. The Long-Range Strategy Subcommittee recommended program goals for fiscal year 2008-09. The OMSC accepted these goals as targets for the OMSC and its subcommittees for FY 2008-09. These goals are included on the OMSC website at <http://www.odot.state.or.us/tddtpau/modeling.html>

Officers for 2007 were:

- OMSC Chair, Bill Upton/ODOT
- OMSC Vice-chair, Richard Bjelland/OHCD
- Long-Range Strategy Standing Subcommittee Chair, Bill Upton/ODOT
- Professional Development Standing Subcommittee Chair, Ray Jackson/MWVCOG
- Applications Standing Subcommittee Chair, Bud Reiff/LCOG
- Modeling Program Coordination Standing Subcommittee Chair, Dick Walker/Metro

Starting in 2008, officers will serve for two years instead of one. For FY 2008-2010, officers are:

- OMSC Chair, Bill Upton/ODOT
- OMSC Vice-chair, Dave Nordberg/ODEQ
- Long-Range Strategy Standing Subcommittee Chair, Bill Upton/ODOT
- Professional Development Standing Subcommittee Chair, Ray Jackson/MWVCOG
- Applications Standing Subcommittee Chair, Bud Reiff/LCOG
- Modeling Program Coordination Standing Subcommittee Chair, Dick Walker/Metro

OMSC STANDING COMMITTEE ACCOMPLISHMENTS

The accomplishments of the four standing subcommittees are summarized here.

Long-range Strategy – Bill Upton/Chair, Richard Bjelland/Vice-chair

Purpose: Responsible for annual work planning, strategic activities and OMSC membership.

Annual Report and Work Planning

- An annual report was prepared to document OMSC activities for 2007 and the first quarter of 2008. Subsequent annual reports will be prepared on a fiscal year basis.
- Program goals were developed to guide OMSC and subcommittee activities for FY2008-2009.

Strategic Activities

- OMSC was invited to be a member of the Board of Advisors of the Oregon Transportation Research and Education Consortium (OTREC). The OMSC Chair will represent the OMSC on the Board.
- Bill Upton meets regularly with OTREC staff to discuss joint opportunities for OTREC/PSU, ODOT and other OMSC members.

Membership

- State and federal agency representatives who retired or changed employment and created vacancies on the OMSC include Richard Bjelland and David Foster/OHCDD and Jon Young/FHWA. MPO representatives leaving the OMSC include Tom Schwetz/LCOG and Dan Moore/RVCOG.

Professional Development –Ray Jackson/MWVCOG, Chair

Purpose: Address technical model development, education, training and quality control.

- Quarterly meetings of the Oregon Modeling Users Group were held in March, June and September, 2007 and March, 2008. OMUG members are generally staff-level people in the public and private sectors who meet regularly to discuss new ideas, tools and problems. Topics discussed at the OMUG meetings included:
 - Review of the multi-class assignment version of the OR Small Urban Models (OSUM)
 - Updates on the Oregon Housing Activity Survey (OHAS)
 - Highlights from the Transportation Planning Applications Conference
 - Implementing a model within the VISUM software

- Overview of EMME-3 features
- Updates on the Salem and Columbia River crossing projects
- Introduction to the software program SQLite
- Overview of modeling classes at PSU with request for feedback on curriculum
- Transit modeling and VISUM
- Use of new research to enhance bicycle modeling
- Presentation on multi-class assignment work in Washington County
- Summary of presentations at the workshop for SUMMIT and FTA user benefits
- Discussion of network path finding considerations when examining transit modeling results
- Presentation on simulating center-running LRT in Vancouver, BC
- Dynamic tour-based model for the Portland area
- Reevaluating JEM-n-R code and utilities

Applications - Bud Reiff/LCOG, Chair

Purpose: Address the environment and criteria under which models are applied, i.e., regulatory requirements and general application. Focal point for peer review and research.

Peer Review

- A formal peer review was conducted for the Corvallis Area MPO model. Participants included members of the OMSC and consultant support.

Research

- LCOG coordinated with OTREC and the OMSC to propose a research project to explore practical software and procedures for multi-level modeling of regional travel demand and traffic simulation in urban corridors. This research proposal was submitted to the ODOT Research Unit for FY08-09 funding consideration.
- The Applications Subcommittee proposed initiating and maintaining a list of on-going and proposed research projects that can be consulted when projects are solicited by ODOT or OTREC or when new funding or in-kind staff resources become available. Possible research topics include:
 - How best to store, analyze, and apply traffic data collected using signal controllers.
 - The effects of residential, commercial, and employment density on transit ridership.
 - Metropolitan freight planning.
 - Model route choice and dynamic assignment techniques including multi-level assignment models, where the equilibrium/deterministic regional assignment is supplemented by corridor-specific ‘mesoscopic’ simulation.
 - Decision support systems for project and policy analysis that can use model output and other data and apply objective criteria and evaluation tools that can be more useful to decision-makers.
 - Bicycle use and route choice in Portland to develop improvements to mode choice and route choice models for the bike mode.

Modeling Program Coordination Subcommittee, Dick Walker/Metro, Chair

Purpose: Provide a technical and interactive forum for discussion of model development and application issues for MPOs and ODOT.

- ODOT and MPOs regularly shared information on modeling projects and issues.
Topics discussed included:
 - Regular updates on the progress of the Statewide Transitional Model.
 - Secured OTREC research funds to conduct a study to illustrate the strengths of Metroscope and LUSDR land use models, the land use allocation models in use in Oregon. Metro and MWVCOG will collaborate in applying Metroscope in the Salem-Keizer area.
 - Metro is working with Portland State University to design and implement a new tour-based activity model over the next 1–2 years.
 - Brainstormed a list of topics for discussion at future meetings.
 - Brainstorming on resources and other sources of help to RVCOG while it goes through major staff transitions.
 - Oregon Administrative Rules relative to transportation modeling.
 - The potential for dynamic traffic assignment as a routing tool.
 - How to make sure that travel demand models and information produced by public agencies is used properly and as intended by consultants and developers.
- Worked with the Oregon Household Activity Survey (OHAS) Subcommittee to develop a work program for a Request for Proposal and to select a consultant team to conduct the OHAS. The OHAS is a major effort for the MPC and the OMSC.

AD HOC SUBCOMMITTEE ACCOMPLISHMENTS

Ad Hoc subcommittees are chaired by an OMSC member but usually include broader membership than the OMSC. They are formed to address specific and complex issues, where personnel or expertise beyond the OMSC is desirable. Ad Hoc Subcommittees in FY2007-08 included:

Oregon Household Activity Survey (OHAS) Subcommittee – Bill Upton/ODOT, Dick Walker/Metro, Co-Chairs

Purpose: Provide oversight for development and implementation of the Oregon statewide survey.

- A consultant team was selected to conduct the OHAS.
- The first work order contract was signed to develop an overall timetable and schedule for surveys and a general scope of work for these surveys.
- A two-day kickoff meeting was held with the OHAS and MPC Subcommittees. Participants discussed the process, what is wanted from the survey, and sampling techniques.
- Work with the consultant began to identify survey core elements and outline a pilot survey.

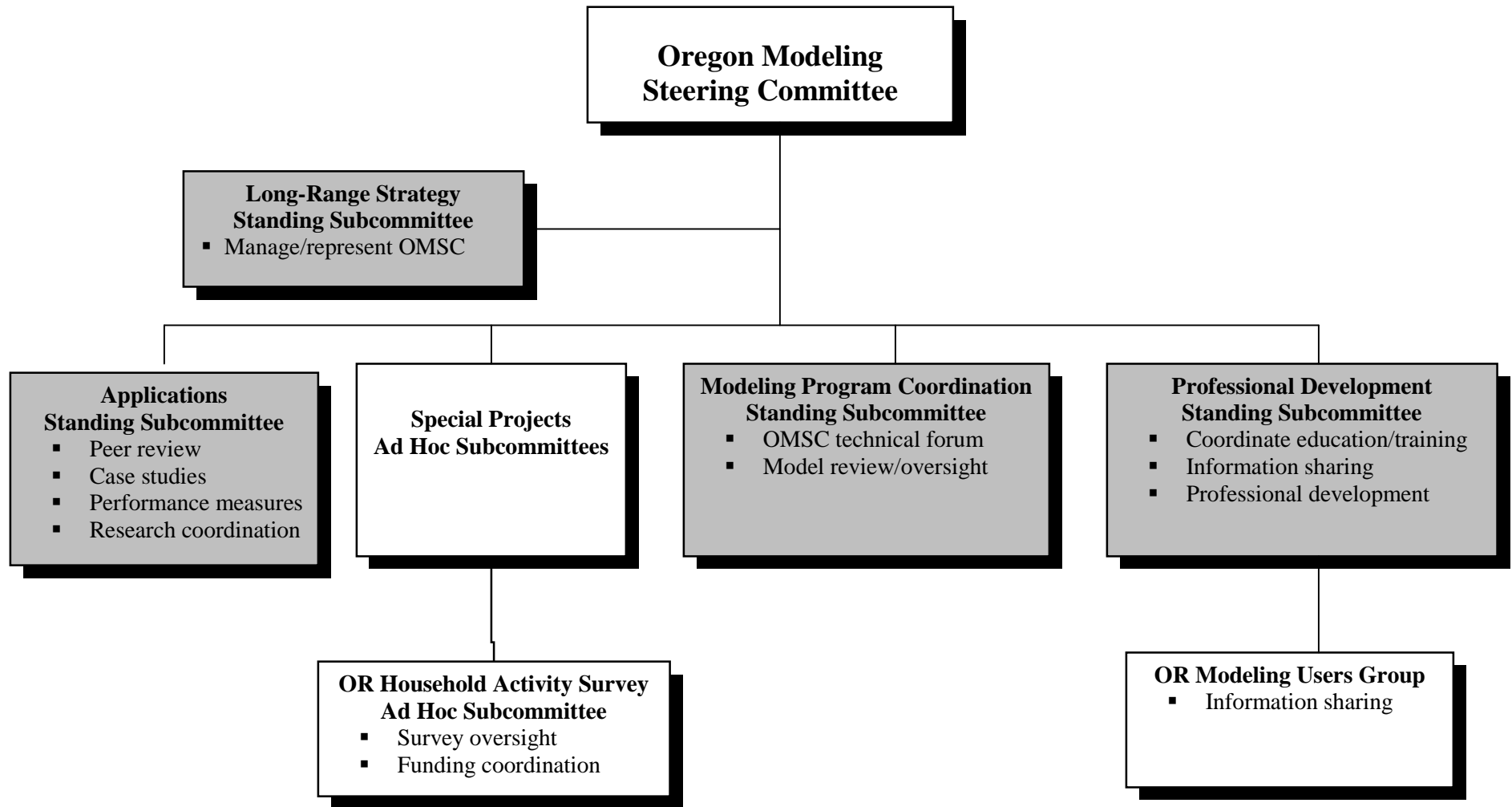
Oregon Modeling Users Group Subcommittee – Ray Jackson/MWVCOG, Chair

Purpose: Facilitate and encourage broad discussion and ideas on development and implementation of Oregon models throughout the Oregon modeling community.

- See summary under Professional Development Subcommittee.

OTHER ACTIVITIES

- Becky Steckler, project manager with the Department of Land Conservation and Development, gave an overview of The Big Look to the OMSC. She works with a ten-member Task Force appointed in 2006 to conduct a broad review of the state land use planning program and make recommendations for any needed changes to land use policy.
- Scott Drumm gave an overview to the OMSC on the Freight Data Collection Project that is being conducted in the Portland area as a joint project with the Port of Portland, Metro, Multnomah County, WSDOT and ODOT. Phase I of the project defined freight data questions on goods movement and the economy; land use and goods movement; truck routes and utilization; relationship of trucking to other modes; and corridor/project specific data needs. Phase II was the freight data collection program.
- Dick Walker gave a presentation to the OMSC on the Transportation Research Board (TRB) report documenting the “state of the practice” of MPO Travel Forecasting Procedures around the country.
- Jennifer Dill, Director of the PSU Center for Transportation Studies, gave a presentation to the OMSC on her research project, funded by the Active Living Research Program of the Robert Wood Johnson foundation and OTREC. The original research question was: How does the built environment influence bicycling behavior? Research was conducted in two phases – a random telephone survey and GPS.
- Regular updates were given to the OMSC on the activities of the Oregon Transportation Research & Education Consortium (OTREC). The three OTREC themes are integrated land use and transportation modeling, healthy communities, and advanced technology.
- Lei Zhang, Assistant Professor, Department of Civil, Construction and Environmental Engineering at Oregon State University (OSU), gave a presentation to the OMSC on his co-evolution of transportation and land use research.



FY2007-08 Organization Chart for the Oregon Modeling Steering Committee