

Meeting Minutes



OREGON MODELING STEERING COMMITTEE
MWVCOG Conference Room
100 High St. SE, Suite 200, Salem Or
Wednesday, October 22, 2014
1:00 pm to 4:00 pm

Agenda

Welcome and Introductions

Conferences

- Highway Capacity Manual Planning & Preliminary Engineering Applications Guide Workshop, Portland, October 29, 2014,
- TRB 94th Annual Meeting, January 11-15, 2015, Washington, D.C., <http://www.trb.org/AnnualMeeting2015/AnnualMeeting2015.aspx>
- Other TRB Conferences and Webinars Posted: <http://www.trb.org/Calendar/Calendar.aspx>
- 15th TRB National Transportation Planning Applications Conference, May 17-21, 2015 in Atlantic City, New Jersey, <http://trbappcon.org/>

General Business

Walker 15 min

Approval of minutes from last meeting
(<http://www.oregon.gov/ODOT/TD/TP/docs/OMSC/201404Minutes.pdf>)

Next meeting proposed date: **Wednesday, April 22, 2015**

Subcommittee summaries (appended to Agenda):

Modeling Program Coordination Committee
Oregon Household Activity Survey Technical Oversight Committee
Health - emerging transportation/land-use issues
Freight - investigate opportunity to collaborate

OTREC Training Services Proposal Update
New OMSC Member Consideration

Hagedorn 10 min
Walker 10 min

FY 2013/14 New Business

Walker/All 10 min

Research, Grants and Applications Activity

- a. SHRP2-C20 grant awarded: Metro, Port of Portland & ODOT
- b. ODOT Research activity – Connected Vehicles, Residential Location Choice
- c. Other

Appended Materials: Sub-Committee Reports

Modeling Program Coordination

April 23, 2014 Meeting: Alex Bettinardi provided an overview of the several new data sources that ODOT has been investigating and a number of revisions to their models. Data from Strava, a purveyor of GPS tracking for athletic sports, is used to gauge the bicycle use of roads around the state. While the data represents a “sample of samples”, it does track most of the popular routes used by bicyclists.

ODOT is testing a variety of data sources centered on the Newport area. The purpose is to acquire a variety of data sources and to test their usefulness in developing models. A secondary goal is to be able to provide a complete set of inputs to researchers and students for exploring and learning modeling. Included in the data that ODOT has acquired is origin-destination data from AirSage, which collects the data from cellphones as they are moved around an area. ODOT also deployed 50 bluetooth readers along the corridors in Newport to collect additional data representing the movement of people. This data is typically used for origin-destination studies and travel time studies. ODOT is investigating how to use the data in a manner similar to inferred survey data.

Alex discussed a number of model modifications and enhancements that are being completed. Most of this work is being completed under contract by PB. A *synthetic population* module is being developed that is planned to be used by both the Activity-Based models under development and GreenSTEP. They are exploring how to include the results into SWIM. A *commercial vehicle* model is being developed using data from Ohio, due to the lack of the necessary data for Oregon. This is seen as another necessary step toward implementing Activity-Based models for the MPOs that ODOT provides modeling support to. Finally, an *Activity-Based model* is being developed in the Grants Pass/Rogue Valley area, with the testing phase currently targeted for the end of 2014. This model is based on PB’s CT-RAMP Activity-Based model.

Rich Arnold’s presentation focused on his exploration of the different travel time data sources available, INRIX, HERE and TomTom. Each vendor captures a slightly different mix of vehicles, thus the data between the three data sets is different. Rich pointed out that it is important to pay attention to what the vendor is reporting, and the limitations that might exist due to the way they have captured the data.

July 16, 2014 Meeting

Peter Bosa (Portland Metro) presented work on the SHRP2 L35 project, which investigated including travel time reliability in travel demand modeling. This work included partners at University of Arizona. Their method used a four-step model with a dynamic traffic assignment (DTA) program. Travel times from the static model are fed into the trip generation submodel, while initial skims from the DTA are calculated for private and public transport and used in the mode choice calculation. The resulting trip table is assigned to the networks (private and public transport), although no feedback of travel times is currently used. Peter presented findings from their trial modeling a corridor in the Portland area,

Rich Arnold (ODOT) discussed the general concept of reliability. He also included a discussion of MAP-21 and the performance measures that will likely be developed to address. Data needs for measuring reliability were presented, distinguishing these from what data is being collected today.

Susan Payne (LCOG-CLMPO) showed the progress LCOG staff have made in developing means of displaying bike and traffic count, as well as collision data on a website. They are exploring two solutions: The first

using the Portal website/database hosted by Portland State University, the second is hosted on their website using the capabilities offered by Tableau.

October 22, 2014

The October meeting for the MPC will take place the morning of the OMSC meeting. As such, the following is an overview of the presentations currently scheduled. The theme of the meeting is focused on future modeling.

Haizhong Wang of OSU is scheduled to discuss his investigation into the “Future of Modeling”. This is an ODOT funded research topic to identify trends that may need to be considered in future modeling work, and how to address them.

A group discussion will be held on the recent modifications to the transport models. The purpose is to keep all the partners informed into the efforts each other is making to identify common areas for collaboration. Metro is scheduled to discuss their draft five year plan in some detail.

Oregon Household Activity Survey Technical Oversight and Development Committee

The OHAS subcommittee met three times (June 2nd, August 19th, and October 13th) since the last OMSC meeting in April. As reported last April, the OHAS subcommittee has been working on finalizing the dataset and bringing the subcommittee to a close. This objective has been met and the subcommittee recommends it be dissolved.

The final OHAS dataset has been assembled with finalized weights and summary reports from the Texas Transportation Institute (TTI) delivered last month. The dataset has been augmented and weighted and is ready for further research, exploration/analysis, reporting, and modeling efforts. It is the intention of the participants in the OHAS subcommittee to continue to share findings and lessons learned using the dataset. Subcommittee members agreed future updates can be facilitated at the OMSC-MPC meetings and do not require a separate subcommittee.

The subcommittee discussed the need for a new subcommittee to be developed. At some point a new survey effort will be undertaken and a group would be formed to coordinate that effort. Members agreed it did not make sense to pursue the next survey effort before preparing more findings and results from OHAS, which would be needed before funding for a new data collection effort was requested. The group discussed the potential for the next data collection effort looking fairly different than the OHAS, using new technologies and new data sources. The group generally agreed a committee around current data collection techniques, sources, and research should be formed in advance of a new travel behavior data collection effort. There was no consensus on when it would make sense to initiate a new subcommittee like this.

Transportation and Health Committee

July 29, 2014

1. The Cambridge Systematics released a report that confirms there are currently two widely used models that estimate the health benefits from increased physical activity from active transportation: ITHIM and the UD4H model (UD4HM). The report describes how the two models were used in California and highlights their strengths and weaknesses (Cambridge Systematics. (2013). *Health Effects Methodology Assessment Report: Model Validation for Health Modules*. Prepared for San Diego Association of Governments).

2. A survey was sent to the subcommittee in mid-August to get feedback on model selection. ITHIM was selected as the transportation & health model to be used to estimate health impacts by a vote of 11 to 1.
3. DEQ presented PATS and provided list of possible air quality models for evaluation of roadway emissions. The list included categorical information on capabilities and limitations of the models. There are concerns about whether the models discussed so far are too complex for the objectives of the subcommittee and that more simplified models may not be accurate enough to be of value. DEQ and OHA are concerned that the omission of diesel emissions in the fleet mix will dramatically underestimate the impact of air quality on health. It was expressed during the July meeting that there isn't enough information available to predict changes in heavy duty vehicle traffic and emissions. Policy changes are the main concern.
4. On August 27th, Brian Gregor provided a write-up on three types of transportation domains: operational; programming and implementation; and strategic visioning, goal and policy setting.

October 9, 2014

1. Survey result is that ITHIM will be recommended to evaluate the health benefits of physical activity from active transportation.
2. The subcommittee will recommend that ITHIM should be linked to a travel model and air quality model for future strategic visioning projects as well as programming and implementation projects.
3. The subcommittee will determine whether all travel behavior and demographic are available in current travel forecast models or whether the data will need to be supplemented. Future activity-based models will also be considered. Eric Main will interview four transportation modelers from the subcommittee to gather more information on the fit between ITHIM and the transportation forecast models used in Oregon.
4. The subcommittee will also recommend that emissions from freight should be included in emissions inventory because some users may want to include the health effects of future policy changes.
5. The subcommittee is evaluating the feasibility of using the methods for modeling air quality in the BAAQMD report, "Recommended Methods for Screening and Modeling Local Risks and Hazards."
6. Surface street air quality is modeled separate from freeways.
7. Arterial links with greater than 10,000 AADT are modeled for air quality in each county with an MPO and matrices are built for north-south and east west directional streets. The matrices include average PM2.5 by AADT in increments of 10,000 and distance from roadway up to 1,000 feet from the roadway edge. Next, a 1,000 ft. buffer is built for each arterial and divided into 20 m x 20 m grid cells and PM2.5 is assigned to each grid cell determined by distance from the edge of the outer lanes. PM2.5 is aggregated in overlapping grid cells from intersecting streets.
8. Freeway links must be modeled using a traditional dispersion model. CALINE3 is used to model emission dispersion along freeway links. Phil Allen and Eric Main will test CAL3i for ease of use when it's available in October.

9. The subcommittee will recommend that EPA's EJSCREEN tool should be used initially to assess impact on vulnerable populations and that a more refined social vulnerability index should be developed and regularly updated.

Freight Committee

No action has been taken to-date, awaiting completion of the Portland Commodity Flow Study.

Minutes

Meeting Attendance: Garth Appanaitis (DKS), Alex Bettinardi (ODOT), Sonny Conder (Metro), Johathan David (RVMPO & MRMPO), Tyler Deke (Bend MPO), Scott Drumm (POP), Brian Dunn (ODOT), Nick Fortey (FHWA), Ray Jackson (MWVCOG), Mike Jaffe (MWVCOG), Becky Knudson (ODOT), Eric Main, (OHA), Chris Maciejewski (DKS), Cindy Pederson (Metro), Wes Richer (DEQ), Josh Roll (LCOG), Dick Walker (Metro), Tara Weidner (ODOT), Dennis Yee (Metro)

Introductions were made around the table. Bob DenOuden introduced himself as a former member of the OMSC through Lane Council of Governments. Bob is currently with the Department of Administrative Services serving in the Oregon Geospatial Enterprise Office as the Framework Coordinator. To learn more about this and the DAS Framework Implementation Team, which Bob chairs, check out the [DAS Framework](#) for more information.

Conferences: The upcoming OTREC *Let's Be Fearless: Big Ideas for our Transportation Future* was mentioned, including OTREC unveiling a new name and rebranding effort. Learn more about this event [here](#).

General Business

Minutes: no changes to the April minutes were requested.

Subcommittees: Alex Bettinardi (chair) provided a brief synopsis of the OHAS committee, including a recommendation the committee be dissolved. The goals and objectives of the committee were completed and further work related to this topic will be handled through the Modeling Program Coordination Committee (MPC). OMSC unanimously voted to dissolve the OHAS committee. Eric Main, Health Committee chair, mentioned interest from the Oregon Health Authority regarding the potential to add transportation questions to the [Behavioral Risks Factor Surveillance Survey](#). Eric will submit a formal request to the Long Range Strategy Committee (LRS) to collaborate on this topic.

OTREC Training Services Proposal Update: Hau Hagedorn provided an overview of the proposal shared at the last meeting. There was interest in the proposal, but insufficient financial support to get it off the ground. Hau suggested developing one or two training courses as pilot efforts to specifically cater to OMSC Agency needs and make progress in the area of developing training services through OTREC. Ray Jackson will explore potential training topics through the MPC and report back to the LRS.

New OMSC Member Consideration: In a manner consistent with OTREC membership in OMSC, Becky suggested the Pacific Northwest Transportation Consortium (PacTrans) join the OMSC. Haizhong Wang

from Oregon State provided a brief description of the center. [PacTrans](#) is the Region 10 University Transportation Center (UTC) established in January 2012 with a \$6.89 million grant from the US Department of Transportation (USDOT). PacTrans is a coalition of transportation professionals and educators from Oregon State University (OSU), the University of Alaska, Fairbanks (UAF), University of Idaho (UI), University of Washington (UW), and Washington State University (WSU). With dual themes of safety and sustainability, PacTrans serves as an engine and showcase for transportation research, education, and workforce development in the Pacific Northwest. UW serves as the lead institution. The center is location on the UW campus. OMSC unanimously voted to formally invite PacTrans to become a member. A formal letter from OMSC will be sent to PacTrans director Yin Hai Wang. Haizhong Wang will represent PacTrans membership. Scott Drumm is a member of the PacTrans [External Advisory Board](#).

New Business

Research and Grants: Brief overviews of grants and research were shared. Dick described the [SHRP2 C20](#) grant awarded to Metro, who is partnering with ODOT and the Port of Portland. Wes Risher asked whether information related to truck make and model and fuel efficiency will be collected. Data collection is early in the planning stage right now, more information will be shared as the project moves forward.

Brian reported ODOT with partners DLCD and CAMPO were awarded a [SHRP2 C16](#) grant to replace SmartGap (a GreenSTEP derived tool) in Corvallis with RSPM, ODOT's metropolitan version of GreenSTEP. ODOT is also partnering with FHWA on work to bring the four GreenSTEP derived tools under a common framework to facilitate upgrades and research.

Alex provided overviews of several ODOT research projects: [Residential Location Choice](#), [Crowdsourcing as Data Collection Method for Bicycle Performance Measures](#), [Road Map for Connected Vehicles](#), [Travel Cost Index](#), [GTFS Data for Large Scale Transit Networks](#), and [Risk Factors Associated with Serious Crashes](#).

ODOT's [annual solicitation of research ideas](#) is currently active. If members have ideas for research projects, they are encouraged to submit ideas. Problem statement forms are available [online](#). All research problem statements are due November 15, 2014.

Bend MPO Planning and Analysis Activity – Tyler Deke provided a brief overview of the activity going on in Bend. A copy of his presentation is available [here](#). Tyler discussed activity related to the urban growth boundaries, existing and planned travel demand models, and Central Oregon projects.

Rogue Valley MPO and Middle Rogue MPO Planning and Analysis Activity – Jonathan David (RVCOG) provided a brief overview of COG activity supporting [RVMPO](#) and [MRMPO](#):

- In cooperation with ODOT and DLCD, RVMPO TAC is recommending the region move forward with conducting a strategic assessment on GHG, which will be submitted to the MPO Policy Committee for consideration.
- RVMPO discovered through the Transportation Improvement Program development they are over their CO2 budget largely due to cold starts not included when the budget was set. They are currently working out how to meet conformity requirements and developing a limited maintenance plan.
- Southern Oregon (RVMPO and MRMPO) will be the pilot region for the ODOT Activity Based Model currently under development.
- Rogue Valley Transit District has developed and is using the [T-Best](#) tool for transit planning activity. The T-Best developers will be presenting at next week's ODOT Transit Conference.

- MRMPO is currently developing a long range Regional Transportation Plan; this is a new MPO north of RVMPO in the Grants Pass vicinity.

Three presentations were shared and are available online:

[DMV Data Project](#)

[Portland Region Westside Freight Access and Logistics Analysis](#)

[Metro Residential Preference Study](#)

Meeting adjourned 4:05 pm

Knudson, 10/30/2014

DRAFT