

**OREGON MODELING STEERING COMMITTEE**  
**ODOT Human Resource Center, 2775 19th Street SE, Salem, OR**  
**Wednesday, January 21, 2009**  
**1:00 p.m.-4:00 p.m.**

**MINUTES**

**ATTENDANCE**

**Members**

Bill Upton, Chair	OR Department of Transportation
Brian Dunn	OR Department of Transportation
Shinwon Kim	SW WA Regional Transportation Council
Dick Walker	Portland Metro
Dennis Yee	Portland Metro
Ray Jackson	Mid-Willamette Valley Council of Governments
Susan Payne	Lane Council of Governments
Dan Moore	Rogue Valley Council of Governments
Scott Drumm	Port of Portland
Derek Jaeger	Port of Portland

**Others**

Mike Hoglund	Portland Metro
Michal Wert	MW Consulting

**INTRODUCTIONS** – Self-introductions. The order of the agenda was changed to accommodate members.

**APPLICATIONS SUBCOMMITTEE CHAIR**

Bill stated that Brian Dunn agreed to complete the term of Bud Reiff as Chair of the Applications Subcommittee. This Subcommittee is responsible primarily for coordinating model peer reviews and OMSC-supported research efforts. On behalf of the OMSC, Bill thanked Bud for his good work for the past several years and thanked Brian for taking on this assignment.

**OMSC MEMBERSHIP UPDATE**

Michal circulated the OMSC membership list to ensure that membership information is correct. She stated that the Long-Range Strategy Subcommittee updates membership routinely and several changes were recommended:

- The Oregon Transportation Research and Education Consortium (OTREC) replaced Portland State University (PSU) since it represents a broader academic community. Members will continue to be Rob Bertini and John Gliebe.

- The Oregon Department of Energy (ODOE) - a new member bringing expertise on greenhouse gas (GHG) and climate change issues.
- The Governor's Economic Revitalization Team (ERT) – previous staff was active in the OMSC and looked at the OMSC as a way to promote transport modeling with agency directors, the Governor's office, and ERT field teams. Staff has changed over the years and other mechanisms for cooperation are more appropriate.
- The Oregon Housing and Community Services Department (OHCS) - active interaction with OHCS in the past was Richard Bjelland. When he retired, Richard's modeling interest and expertise was not replaced.
- The Oregon Economic & Community Development Department (OECDD) functions for community development were shifted to OHCS. OECDD retained the business development function, which does not use modeling.

### **METRO RESEARCH CENTER STRATEGIC PLAN**

Mike Hoglund, Director of the new Metro Research Center, talked about the Center and how it can work with OMSC. In previous positions with Metro, Mike worked extensively with MPOs and ODOT. Metro has several regional responsibilities, including the zoo, convention center, solid waste/recycling, regional parks, conservation programs, and planning/MPO functions.

Metro has reorganized around functions in an effort to reduce duplications within program areas. The new organization includes facilities, the zoo, sustainability center (marketing, conservation education) and two planning functions – project and programmatic, and an independent research group. The Research Center includes land use, economic and transportation data/information/forecasting staff. The immediate charge of the group is to continue to:

1. Collect and store regional land use and travel data.
2. Operate a storefront of mapping, cartographical and air photo services.
3. Provide economic, land use, and travel forecasting services to internal and external clients.
4. Provide limited data and mapping services to other Metro departments and the Council Office.
5. Provide limited research around public policy issues, primarily related to transportation and land use.

The Research Center is developing a strategic plan, which includes a needs assessment. He is talking with internal and external stakeholders, and the OMSC is an external group of fellow researchers and modelers. Prior to the OMSC meeting, a list of questions was circulated to OMSC members to consider for this discussion. The next step is to compile what was heard in stakeholder meetings and develop concepts to direct the work of the Center over the next five years. Mike asked about the view of a mission and key goals for the Metro Research Center.

Michal suggested that the Center address issues of sustainability, including defining what that means for both the broad topic of sustainability as well as sustainability of work efforts.

Dan suggested that Metro serve as an information depository.

Susan stated that information and sharing has always been informal between Metro and other MPOs. Because of its size, money and other resources, Metro gets knowledge and tools and then shares the knowledge and tools with the other MPOs. Metro can apply algorithms in the Metro area to see if they are worthwhile or not. This is useful to save the smaller MPOs from redundancy and letting them know what does and does not work. How will the reorganization change this relationship?

Mike stated that there is thought about formalizing some relationships internally so that when someone within Metro wants something to be done, it is monitored to make sure it is done. Discussions are occurring on how to work together better with PSU and to improve on the Metro-PSU Memorandum of Understanding (MOU). Short-term and informal discussions will continue and it is important for two-way dialogue to keep everyone informed. If land use-transport integrated modeling classes were conducted by Metro staff, this would probably be more formal.

Dick stated that Metro works with all OMSC members in a variety of ways. He asked what is important, where Metro is most effective, and where Metro's efforts should be focused.

Scott stated that it is important that Metro focus on the geography where it concentrates its efforts. For example, the Port of Portland covers a certain geography.

Brian recommended that Metro look at the missions of OMSC agencies to make sure that mission statements are compatible and/or complementary. ODOT policies include the Oregon Transportation Plan.

Dick noted that research is a vague word. The goal is to not conflict or compete with other research activities. Metro would like to improve and strengthen relationships and identify places where there are holes.

Brian stated that it appears that Metro is doing everyday implementation work as well as research. It is not strictly a research center.

Mike suggested an annual event for information sharing to be done through the OMSC or through the Oregon Modeling Center when it is established. Metro probably does not have a lot of capacity to do more research but it will probably get many requests, not all of which will be about transportation. For example, the solid waste field is not as advanced as transport. The science is on the commodity end but there could be requests from solid waste, parks or others. It will be useful to prepare a list of what Metro already

does, who are existing or potential partners, new areas to be explored and what will it take to develop new areas.

Dan stated that southern Oregon knows a little about what Metro does but it might be good to do outreach and let others know the type of research and activities Metro will be doing. In early 2000, with a Transportation/Growth Management (TGM) grant, Metro held a training session in Portland for a group of RVMPO planners on how to integrate land use and transportation for the Highway 62 corridor. Metro conducted a full-day session of presentations and discussions. How Metro does cutting edge planning was very helpful to RVCOG and it would be nice if this type of training continues.

Mike asked if there are experiences where Metro was not a successful partner.

Ray stated that there might be resource limitations on staff time. The question is whether this is this being unsuccessful or whether Metro was too successful and got more requests. Dick noted that this is important to consider. If there is not enough time or money for an activity, it needs to be flagged.

Susan suggested that Metro consider providing research into visualization and public involvement processes, including survey techniques, how to deal with huge amounts of data, and how to present information in a public format.

Mike stated that Metro is developing performance measures tied to budgets. Much of what Metro does is tied to surveys of customers and clients.

Brian asked if Metro will branch out into other areas besides transportation and land use modeling. Mike stated this would only occur if there were additional funding or the Center runs out of things to do. Most money is dedicated and this defines what work is done with what money.

Bill stated that Metro and ODOT had a partnership Intergovernmental Agreement (IGA) and it worked successfully for several years, sharing staff and work. Both organizations got very busy and this partnership stopped, but it was very effective.

Shinwon stated that RTC has worked with Metro for some time for process and information. The RTC model this takes all the staff time available so it does no research, but there are several modeling issues. Is it the intent of Metro to improve models? Metro established a research format in its department and standardized solutions for all MPOs. Will this continue in the new group? Dick stated that some things may be different but most things will stay the same.

Mike stated that the strategic planning exercise is to define what the Center will do and do well and what it will not do. Model enhancement, data management, and development tools are all part of the Center.

Dan stated that RVMPO tried to bring policy committee members to meet with Metro Councilors to talk about MPO planning related policy issues around land use-transportation modeling. It was not possible to get everyone together at the same time so the MPO gave it up. It would be helpful if Metro had a key policy person who could fill in for a Metro councilor. Mike noted that elected officials add a nuance that staff cannot.

Brian stated that jointly estimated models that were developed by Metro are now in small cities around the state. Metro is doing freight modeling that other MPOs are not doing. Everyone doing urban modeling looks to and relies on Metro to help get this work done. It will be good to figure out how to address these issues jointly.

Ray asked how the Metro Research Center will work with the Oregon Modeling Center being discussed at PSU. Will one be a short-term research center? It is desirable to have quick access to new models that Metro develops. Susan stated that LCOG looks to PSU to do basic research. Metro is viewed as doing applied research, getting research to the place where it is operational. Metro then shares operational/applied research with other MPOs.

Dick stated that, when fuel prices increased, Metro staff did research of different sources to develop a position on how the future price of fuel or cost per mile impacted travel forecasting. Metro also has done future model development. Today, much of Metro staff time is dedicated to project work so Metro is working more closely with PSU to have them assist with model development. PSU does not do this for Metro, rather PSU and Metro work as partners.

Susan asked if the Research Center will have an advocacy role, such as advocating to the state for needed policy positions. Metro can provide data and tools and can prepare position papers that document lessons learned from different activities. Mike stated that Metro will work through the appropriate system, probably through the OMSC or PSU. If a white paper or position paper were needed, it would be decided jointly how this would be done.

Dan stated that the technical work that Metro did to map MPO regions and prepare travel shed maps for the Oregon MPO Consortium was valuable. The Consortium looks beyond the MPOs and has two voting members from each MPO. Program managers from each MPO are staff liaisons. Tom Kloster has a lead role in working with technical aspects of the Consortium and has worked on legislative initiatives. It is hoped that Metro's involvement with the Consortium will continue.

Michal stated that Metro has always had a strong leadership role in the OMSC and it would be good for that to continue.

Scott stated it would be helpful to have a forum to talk about needs that Metro has that the Port could help fill, such as tweaking surveys to give Metro what it needs or vice versa. It would be useful to formalize or institutionalize a regular dialogue between the Port and Metro.

Mike stated that there are similar threads from what he heard from the OMSC and PSU. It is important that others understand the organization and it is good that others have looked to Metro to do good work in the past. It is important not to lose anything that has been done well in the past. The Oregon Modeling Center, OTREC and OMSC all do different things and there needs to be an ability to communicate needs, identify priorities and share information. Being as efficient as possible and sharing through existing formats is a good first step.

He stated that a climate action plan is being done for the Metro region. The new Research Center has a role in inventory and will be talking with ODOE to make sure that activities are coordinated. It is hoped to have a good idea on a GHG inventory in March. It is complicated when thinking about sectors. Traffic boundaries are straightforward but GHG emissions go way beyond what is done normally. Metro will report back to the OMSC on its approach to developing its climate change inventory. There may be a state agency meeting to bring some diverse interests in climate change together.

Susan stated that there is information that Metro needs or would like to have that everyone needs, such as fleet distribution. When Metro thinks about how to get data or to do things that all the MPOs need, Metro should think about how to do this collectively, especially when talking with state agencies about needs.

Mike offered to meet individually with any OMSC member organization upon request. Michal suggested that the OMSC is a good resource for the Research Center and offered to be a point of coordination between the OMSC and the Metro Research Center.

### **TPAU STRATEGIC PLAN STATUS**

Bill stated that TPAU prepared a strategic plan last year and recently added GHG and least cost planning elements. The Plan is almost complete and TPAU is moving into implementation. Implementation includes discussing what work efforts will be increased, decreased, and what will stay the same. This exercise is giving a good picture of where TPAU is and where it is headed.

Brian stated that a major part of the strategic plan is to look at how to balance staff. Like everyone else, TPAU is trying to figure out how to do more with no new staff. The plan looks out two and five years and is intended to allow staff to see clear priorities for the Unit. SWIM2 is almost ready for implementation and GreenSTEP is concluding. TPAU is looking at what can be done by others, mostly project-related work.

Dan asked if the TPAU strategic plan talks about MPO issues and what level of support TPAU will provide to MPOs. Brian replied that urban modeling is addressed.

Susan asked if the plan relies on MPOs having the capacity to do modeling. Brian stated that budget issues need to work through the Unified Planning Work Program (UPWP). ODOT is generally not included in development of MPO UPWPs and it may be useful to

have a broader UPWP process to make sure that all MPOs have some level of assistance. He suggested that MPOs think about what they are trying to do instead of thinking about the tools they need. Sometimes the models need to be upgraded, but some of the models can do more than they are being asked to do.

Brian stated that TPAU has 16 full-time positions – five staff for project development, three for planning level analysis, six for modeling applications (18 models, SWIM2) and two managers. The plan has been reviewed with Jerri Bohard and elements have been shared with the ODOT Director. The reasons to prepare a strategic plan include helping to define and guide what is done internally, and to communicate to those at higher levels on what can or cannot be done with existing resources.

The plan will be put on the TPAU website soon and OMSC members will be notified when it is available.

## **SUBCOMMITTEE REPORTS**

### **Long-Range Strategy Subcommittee – Bill Upton, Chair**

Bill stated that all items discussed at the last Long-Range Strategy Committee are addressed in other agenda items. The Subcommittee welcomes Brian Dunn as a new member in his capacity as Chair of the Applications Standing Subcommittee.

### **Professional Development Subcommittee – Ray Jackson, Chair**

Ray stated that a meeting of the Oregon Modeling Users Group (OMUG) was held in December. Main discussion topics included:

- Overview of the Oregon Household Activity Survey (OHAS) by Mike Gillette.
- A review by a PSU professor on the literature on elasticities of what happens when gas prices increase with respect to transportation and land use changes.
- An overview by Bud Reiff of updates to the Metro model, including different value of time for different modes, central city tourist and event surveys, and park-and-ride lot choice.
- A technical overview of the GreenSTEP model by Brian Gregor.

Information from the meeting will be added to the OMUG website at <http://www.oregon.gov/ODOT/TD/TPAU/OMUG.shtml>. The next meeting is March 12. Agenda items are welcome and should be sent to Ray.

### **Applications Subcommittee – Brian Dunn, Chair**

No report.

### **Modeling Program Coordination (MPC) – Dick Walker, Chair**

Ray chaired the meeting prior to the OMSC meeting. The top issues for 2009 were solicited from all members to identify overlaps and to look for opportunities for coordination and cooperation. Staffing, GHG, and OHAS are issues for everyone. Topics for future meetings include:

- Integration of SWIM2 and MPO models

- GHG and least cost planning.
- Need to meet after the legislative session to discuss directives for ODOT and MPOs.
- Talk with Don Crowover about the ODOT traffic count data base program and the possibility of a common depository for traffic volume data for ODOT and MPOs.
- Benefits of Intelligent Transportation Systems (ITS), how they can be captured in modeling, and the appropriate level.

## **PROGRAM UPDATES**

### **OR Household Activity Survey**

Dick stated that the last statewide household survey was conducted in 1994-95 and everyone is participating in the OHAS update. The OMSC OHAS Subcommittee has been working with a consultant team to collectively design and develop the OHAS survey instrument. The types of questions used in the last survey worked well so this survey was used as the base. Some special purpose questions no longer needed were deleted and other questions were added. NuStats does household surveys around the country and the OMSC is fortunate to be able to take advantage of their other projects. For example, they worked with Chicago to develop a survey instrument and had a panel of knowledgeable people who knew what needed to be asked for certain purposes. The OMSC is fortunate to have a lot of history, practice and peer-reviewed practice to help develop the OHAS.

A pilot was conducted of about 300 surveys. The OHAS Subcommittee reviewed results - how did the survey work, what are the effects of land lines vs. cell phones, what about linking phone- and address-based sampling. NuStats will start the first survey in the spring in ODOT Region 2. Surveys will be initiated in the fall in Salem-Keizer and Eugene-Springfield.

There was discussion about offering incentives but this does not have strong consideration. This was not done in the past and it is difficult to use grant funds for incentives. Incentives will not be used in the Metro area, but Metro has not had trouble getting survey information in the past. Bill stated that it is probably not legal to offer incentives. Susan suggested that transit agencies can offer bus passes as incentives.

Dick stated that OHAS will be a basic survey with core questions. This will cost about \$160 per household. Within this core cost, each survey sponsor can add up to five additional questions. If additional questions or if a sampling frame with other dimensions than the core is desired, that will cost more. The core survey has no GPS but this can be added at additional cost. When it is time to start a survey in area, decisions need to be made on whether to use the core questions, what the additional five questions will be, and whether more questions are needed to address local issues or concerns.

Dennis stated that, in the 1994 survey, there was an effort to bolster a question on personal household information that was not answered very well. How is that being addressed this time? Dick stated that household bins are consistent with the Census.

Ray noted that income was not answered very well in the pilot project. Dennis suggested that there is a lot of information about people that does not need to come through a survey. Can NuStats tap into credit reports or other nonproprietary sources of information to gather additional data about the survey area? It was agreed that, even if this were legal, this could cause public perception problems. It was suggested that NuStats be asked how to enhance this question.

Dan stated that the 1994 survey was done on forms, which were then scanned and the originals were shredded. Dick stated that NuStats will do all the data entry and it will be much more efficient for this survey. NuStats survey takers sit in front of a survey screen, call the surveyed person, have questions and a map on screen, use electronic push pins for the household location and trips, and this geocodes the trip as it goes.

Dan asked if, with new information, any radically different model results are anticipated. Bill stated that the literature on surveys show that results tend to stay relatively constant over time.

Susan stated that the federal Travel Model Improvement Program (TMIP) has data from several surveys around the country and it might be useful to see what people are doing around the country. Shinwon questioned how transferrable survey data is around the country.

Shinwon asked, given their experience with other surveys, how is NuStats asking questions differently to get better information, compared to the 1994 survey? Dick stated that phrasing of the questions is not as important as techniques and methods of acquiring data. They do a better job of capturing trips or intermediate stops, have better techniques to get shared ride information, and the geocoding process is significantly improved. Dennis noted that employer location was a problem in 1994 and pre-geocoding to verify should address this problem.

Dick stated that the first step is to recruit those to be surveyed. This can be done either actively – call a household – or passively – mail information. A specific address for the home is known, more cross-street information is available on the employer, and maps with points of interest will help to tease out information from those surveyed. The OMSC has been working on the OHAS for several years and it is good to get the actual surveys started.

## **2009 CONFERENCES**

### **January 11–15, TRB 88th Annual Meeting, Washington, D.C.**

Scott attended sessions on surveys. A focus was on defining what you are trying to collect and what you are trying to describe, and how do you know when it is good enough. It is a challenge to balance quality with the incremental cost of getting more information. Organizations like ports and state Departments of Transportation increasingly are having to tell more of a story. In the past, showing ridership or freight

volumes supported projects, but hard data alone no longer gets public support. Both hard data and a story are important to make projects relative to individuals for freight, transit, and other projects.

Michal stated that the Long-Range Strategy Subcommittee discussed encouraging a sharing of information with other agencies who ordinarily would not attend TRB. Topics are much broader than transportation, and DLCD, ODOE and others may find the discussions interesting and useful. As information is developed for TRB 2010, this information will be shared with all OMSC partners.

**April 30-May 1 - 10th Annual PTV Vision Users Group Meeting, Portland, OR**

Shinwon announced that the 10th Annual PTV Vision Users Group Meeting will be hosted in Portland at the Governor Hotel. See <http://www.ptvamerica.com/usergroup.html> for more information.

**May 17-21 - TRB Transportation Planning Applications Conference, Houston, TX -**

Bill announced the conference in Houston. See [www.trb-appcon.org](http://www.trb-appcon.org) for more information on the conference. The conference will be held in Denver in 2010.

**OR MODELING CENTER AT PSU UPDATE**

Dick stated that the idea of an Oregon Modeling Center at Portland State University is moving forward. A Steering Committee composed of Bill Upton, Dick Walker, John Gliebe, Keith Lawton and Michal Wert have been meeting with a variety of policy makers in the Metro region, ODOT and at PSU to define how to proceed. There are several reasons why a modeling center is being considered:

- Sustainability and modeling knowledge – it is important to have models and knowledge dispersed so it is not vested in one or two people.
- Everyone is extremely busy - Metro spends a lot of time on applications and there is no time to think about or develop new things. It is important to keep models relevant to address emerging policy questions.
- Models of today are complex and very sophisticated – a new generation of model developers and users is important to keep pace with the analysis tools that are being developed.

The Steering Committee has been meeting with policy-makers at Metro, ODOT and PSU to explain the concept and see whether the notion of a modeling center makes sense, what it should focus on, how much support there is, and whether a committed funding stream can be identified/established. The next step is to create a business plan on how the center will actually work. Once the business plan is prepared, there will be further discussions with policy people.

Michal stated that the Steering Committee is exploring several organizational issues and options. Should this be a separate center within PSU, part of OTREC, or are there other forms that it could take? How the center relates to other existing research centers – Metro, ODOT and OTREC – needs to be clearly defined.

Dick stated that it will be important to have a dedicated funding stream to support the center to provide continuity of services. Practically, there is not a lot of money at the MPO level and ODOT and Metro may have to carry most of the cost of the center, at least initially. It will be important to look at grants and to find grant funders to bring money into the center.

Susan suggested that a dynamic tour-based model could be maintained by the center. The model could be developed for Metro and then be adapted for other areas. Dennis stated that ODOT and Metro might carry the basic research, but adapting code might be an affordable cost for other MPOs to adapt code to work in their areas.

Ray suggested that, for larger projects, there is a line item to update the model to be applicable to the project to make sure it is as current as possible for the project. Instead of giving this money to a consultant, this work could be done by the center. Dick suggested that a surcharge could be added to projects to build funds that could be dedicated to research.

Dan asked if the center will gather data for the MPOs, similar to the PSU Population and Research Center that provides population information. Dick stated the center will build slowly and the work to be done in the center will depend on the funding stream available and the capacity to do the work.

Susan stated that there are a host of models available that all do some things well. Maintaining all these models in the future will be an issue. It is important to have continuation of the models as tools and that they are well-documented and up-to-date.

Dick suggested that, if the center can find the money to do the difficult model development (appropriate algorithms, structure, code), each agency can then take the models for application to its region. Final application might be the responsibility of the local agency. Ray suggested that models could also be exported to other states as a source of revenue.

Michal stated that the 'soft' part of developing and using models will also be important. The center has the opportunity to train planners and others not interested in the technical aspects of modeling, but who are interested in the policy applications and how to use the tools effectively. Courses can be developed to teach students how to think about the questions that models can help answer and how to work with policy-makers to have these discussions. Education and training will be an important part of the center.

## **NEXT MEETING/AGENDA**

The next OMSC quarterly meeting will be on Wednesday, April 15, 2009, from 1:00-4:00 p.m. in Salem.

Suggested agenda topics include:

- Tom Kloster from Metro was invited to give an update on the Metro future scenario analysis project. Kim Ellis will do this at the July 15 OMSC meeting.
- Metro has been running MOVES and is finding that applying MOBILE6 and MOVES in the past got the same number for GHG. Applying both in the future, MOVES shows 8-10 percent less GHG. MOBILE6 estimation of GHG is VMT based but MOVES also accounts for speed. When MOVES is released, it will be a good OMSC discussion topic.

The meeting adjourned at 4:00 p.m.