

THE METRO COUNCIL

FOR THE PURPOSE OF ADOPTING THE ) RESOLUTION NO. 99-2868  
PORTLAND-AREA AIR QUALITY )  
CONFORMITY DETERMINATION FOR THE FY ) Introduced by  
2000 METROPOLITAN TRANSPORTATION ) Councilor Jon Kvistad  
IMPROVEMENT PROGRAM ) JPACT Chair  
)

WHEREAS, State and federal regulation require that no transportation project may interfere with attainment or maintenance of air quality standards; and

WHEREAS, projects allocated funding in the FY 2000 through 2003 Metropolitan Transportation Improvement Program are regionally significant with respect to their potential effect on air quality; and

WHEREAS, The Interstate MAX light rail extension project has changed the alignment and terminus from that previously analyzed for air quality effects; and

WHEREAS, Extension of light rail from Downtown to Clackamas County has been delayed from the time assumed in the last regional air quality analysis; and

WHEREAS, These events trigger a need for preparation of an Air Quality Conformity Determination to demonstrate that they conform with the State Implementation Plan for maintenance of air quality standards; and

WHEREAS, Metro has convened the Intergovernmental Consultation Subcommittee of TPAC to confirm the technical basis for preparation of an Air Quality Conformity Determination; and

WHEREAS, TPAC is the standing body authorized by the State Air Quality Rule for approval of Determinations; now therefore

BE IT RESOLVED:

1. The Conformity Determination shown in Exhibit 1 of the Resolution is approved.
2. This Resolution repeals Resolution No. 99-2843A.

ADOPTED by the Metro Council this 4th, day of November, 1999.

Susan McLain  
Deputy Presiding Officer  
Rod Monroe, Presiding Officer

Approved as to Form:

  
Daniel B. Cooper, General Counsel

99-2868. Res/TW/tw  
11-3-99\

**Determination of Conformity  
for the  
FY 2000 Through 2003 Portland-area  
Metropolitan Transportation Improvement Program**

**I. SUMMARY AND HIGHLIGHT OF MAJOR CHANGES IN THE SYSTEM AND METHODOLOGY USED IN THIS DETERMINATION VERSUS THAT USED IN THE DETERMINATION APPROVED BY FHWA/FTA/EPA IN 1998.**

**Reason for Determination.** This Conformity Determination is for the Portland Area FY 2000 through FY-2003 Metropolitan Transportation Improvement Program (MTIP). It has been prepared because:

- Projects or project phases have been approved for funding in the newly approved MTIP, thereby accelerating the timing of several regionally significant projects from that previously analyzed in the Conformity Determination approved by federal authorities in October 1998; and
- Metro recently approved amendment of the scope and concept of the South/North light rail extension project. The South corridor component has been delayed and the alignment and terminus of the North corridor component has also changed significantly. Funding for the project is included in the TIP.

None of these changes affects the 2015 horizon year of the RTP. The RTP continues to anticipate completion of a South/North light rail extension between Clackamas Town Center to the south and Vancouver, Washington to the north by 2015. The 2015 Financially Constrained transportation network remains the basis for determination of the region's conformity and only the scope and concept of interim analysis years has changed.

**Amendment of the 1998 Conformity Determination Travel Network.** Appendix 1 shows the projects that were allocated funding in the FY 2000 TIP. It first lists those for which no capacity effects can be modeled (e.g., bike and pedestrian improvements). It then lists those for which a change in system capacity has been identified in the regional transportation model.

- Of the projects capable of modeling, most are "Boulevard" design treatments intended to reduce auto speed and enhance multimodal function of select street segments in the region. The model effect of these design features is to reduce auto capacity of improved street segments by approximately 200 vehicles per hour. Though not regionally significant, Metro routinely models such improvements.

- The TIP action also advanced regionally significant projects or project phases analyzed in later analysis years of the 1998 Determination. The most notable of these projects include phase 1 of both the I-5/Hwy 217/Kruse Way Interchange reconstruction and the Sunnybrook Split Diamond Interchange project. Though timing of these first phase projects has not advanced, their receipt of TEA-21 High Priority funds has enabled expansion of their previously modeled scopes.
- The region's financing plan for the proposed South/North LRT project was rejected by the electorate in late 1998. Since that time, an alternative light rail extension proposal submitted by the City of Portland business community has been endorsed by Metro. The proposal calls for extension of MAX light rail north from Downtown to the Exposition Center running principally on Interstate Avenue. This alignment differs from that included in the 1998 Determination and would reduce Interstate Avenue from four travel lanes to two (900 vehicles per hour, peak direction, instead of the current 1,800 vehicles per hour). This represents a significant modification of project scope. The project terminus also extends further north than assumed in Interim Operating System 1 (IOS 1) analyzed in the 1998 Determination.

The southern leg of the previously analyzed South/North project has been delayed until some time after 2003, which is the start date assumed in the 1998 Determination for service to the Linwood station, just east of Clackamas Town Center. As part of this delay, a substantial number of park and ride spaces assumed in the 1998 Determination, which significantly affected some local arterial operations and increased corridor-specific transit patronage somewhat, have been removed in the present Determination. Some residual park and ride spaces will continue to be provided in 2005 and the TIP allocates funds for initial deployment of "rapid bus" concepts in the McLoughlin corridor starting in FY 2000.

Additional transit options in the corridor are under investigation but no concept has been adequately developed for modeling purposes at this time.

It bears restatement that no amendment of the 1995 RTP has been approved by Metro to eliminate or significantly alter the 2015 horizon year assumptions reflected in the Financially Constrained Network. The RTP has not changed its anticipation that by 2015, light rail will operate south to the Town Center and north to Vancouver Washington, except for the alteration to the north alignment noted above.

- A number of other arterial projects are affected by TIP allocations. Changes to their scope or timing may or may not be significant but Metro has taken this opportunity to revise previous modeling of the projects to reflect the most current timing and design information. These projects are also identified in the Table.
- Other miscellaneous changes have occurred over the last year to locally funded projects included in the previously modeled network which concern either their

timing or scope. These reflect changes to the existing local street system, typically in association with developer funded street improvements. The professional judgment of Metro modeling staff, guided by evaluation of whether any such changes effect components of the regionally significant system defined in the 1995 RTP, determines whether such system revisions are treated as either routine and unrecorded or as revisions meriting inclusion in the Regional Street Atlas. A system for recording the higher order revisions does exist, which is not to say that all such changes are necessarily regionally significant. Additionally, Appendix 3 declares Metro's characterization, in the regional model, of the current and future condition of regional system links that are proposed for capacity expansion.

### **Quantitative Results.**

Results of the Determination quantitative analysis are summarized in Tables 1–3 on pages 23 and 24. The tables show total regional emissions resulting from implementation of the FY 2000-2003 MTIP, including those derived from projects whose scope and concept have been modified from those previously conformed, fall within maintenance plan budgets established in 2005, 2015 and 2020, which are also the analysis years of the Determination.

### **Changes to the Determination Quantitative Methodology.**

- Three tailored technical modifications of the regional model run in the last Determination have now been wholly integrated into the regional transportation model. The 1998 Determination was driven largely by the need to conform extension of light rail to Portland International Airport (PDX). In the last effort, trip distributions were individually modified for all analysis zones contributing trips to and from PDX to reflect introduction of light rail as a travel option. Land use changes associated with the proposed Portland International Center development adjacent to the airport were specially integrated. Finally, the regional model also required ad hoc revision to reflect enhanced modeling procedures for passenger travel to and from PDX. All these assumptions are now integrated into this conformity determination quantitative analysis.
- The 1998 Determination had a horizon year of 2015, the same as the 1995 RTP. The current Determination adopts a 2020 horizon which responds to FHWA concern for an active "20-year" analysis period. Travel demand consistent with Metro's adopted 2020 population and employment projection are distributed on the 2015 Financially Constrained RTP travel network. In essence, an additional five years of population, employment and associated travel demand is distributed on the 2015 travel network. This is a highly conservative assumption.

- Mobil 5a-h emission factors had previously been “customized” for Portland area conditions only to 2010. Because the last Determination used the RTP horizon year of 2015, DEQ approved extrapolation of emissions for 2015 from the 2010 data. The current determination has customized the Mobil 5a emission rates to 2020, the last year for which the program can generate results.
- The prior Determination applied a graduated post-model emission credit eventually amounting to one percent in 2015, to reflect VMT reduction attributable to the regional Employee Commute Options program. Recent data collected by Tri-Met and DEQ staff indicate revision of this credit is appropriate. Since only 70 percent of targeted businesses have been reached by the program, this element of the ECO credit formula was reduced to show the 70 percent employer base penetration rate.

**Quantitative Analysis Methodology.** Analysis years of 2005, 2015 and 2020 were selected in consultation with DEQ and FHWA staff. The first analysis year of 2005 corresponds with the Interstate MAX opening day and was chosen largely for this reason; the project EIS requires an opening day ridership figure which is produced as part of the Conformity Quantitative Analysis. Also 2005 is within ten years of the following analysis year of 2015. It is not, however, a budget year for carbon monoxide (CO), hydrocarbons (HC), or nitrogen oxide (NOx). As directed in the Maintenance Plan, Metro has interpolated between HC and NOx emission budgets established for 2003 and 2006 and between 2003 and 2007 budget years for CO, in order to establish 2005 emissions budgets for these pollutants.

The 2015 analysis year is a “triple” budget year for CO, HC and NOx and is within 10 years of 2005. The 2015 analysis year was also selected per the State Rule guidance that the Determination’s horizon year must encompass the last year of the RTP; the RTP forecasts transportation conditions for the 20-year period of 1995 through 2015.

As previously stated, a Determination horizon year of 2020 was selected to comply with FHWA concern for an “active” 20-year” Determination period.

**Key Qualitative Issues.** The maintenance plan adopted a number of Transportation Control Measures (TCMs). Some TCMs are regulatory, three are funding based. The 1995 RTP, as amended, and FY 2000 MTIP do not interfere with their timely implementation. The 1995 RTP, as amended, and the FY 2000 MTIP do assure priority implementation of the funding based TCMs. An overview of the TCMs is provided in Section II.B.2.d, below.

## II. QUALITATIVE ANALYSIS

### A. Background

**Basis of Conformity Requirement.** The Clean Air Act Amendments of 1990 (the Act) required EPA to promulgate a rule containing criteria and procedures for determining conformity of regional transportation plans (RTP) and transportation improvement programs (TIP) with State Implementation Plans (SIP) for attainment and maintenance of federal air quality standards. This rule was adopted by EPA on November 24, 1993. The rule required Oregon's Department of Environmental Quality (DEQ) to submit a revision of Oregon's SIP detailing new criteria and procedures for assuring conformity of transportation projects and plans with the SIP. DEQ adopted these revisions as OAR 340-20-710 through 340-20-1080. Both the DEQ and EPA rules require that qualitative and quantitative analyses support Metro's Conformity Determinations.

**RTP/TIP Relationship.** The region's current RTP was adopted in July 1995. It is the "umbrella document" which integrates the various aspects of regional transportation planning into a consistent coordinated process. It identifies the long-range (20-year) regional transportation improvement strategy and 10-year project priorities established by Metro. It defines regional policies, goals, objectives and projects needed to maintain mobility and economic and environmental health of the region through 2015. The Plan is "constrained" to federal, state, local and private revenue sources that are considered "reasonably available" within the 20-year time frame of the Plan. The Plan demonstrates dedication of adequate resources to preserve and maintain the system as well as resources for limited system expansion.

All projects are retained in the RTP until implemented or until a "no-build" decision is reached, thereby providing a permanent record of proposed improvements. Projects may also be eliminated from the RTP in the course of overall amendment or update of the document. The 1995 RTP was last conformed with the SIP in October, 1998.

It is from proposed improvements found to be consistent with the RTP that projects appearing in the TIP and its three-year Approved Program are drawn. The TIP relates to the RTP as an implementing document, identifying improvement projects consistent with the RTP that are authorized to spend federal and state funds within a three-year time frame. Metro approves a fourth year of project funding that is recognized by federal agencies for informational purposes only.

Projects are allocated funding in the TIP at Metro's initiative and at the request of local jurisdictions and state and regional partners such as the Port of Portland, Tri-Met and ODOT. Metro must approve all project additions to the TIP. Among other

things, Metro must find that proposed capital improvements are consistent with RTP policies, system element plans and identified criteria in order to be eligible for inclusion in the TIP for funding.

The State Rule also specifies that regionally significant local projects must be assessed for conformity with the SIP. This is consistent with the Clean Air Act requirement that no transportation project -- not simply federally funded ones -- may interfere with achieving national air quality goals. Locally funded projects identified in the RTP financially constrained network are included in the TIP for information purposes only at a level sufficient to describe scope and concept for conformity purposes but not including financial detail. Therefore, the network used to analyze transportation system effects on air quality in the Portland region includes projects programmed in the TIP to receive federal and state funds and all other projects -- regardless of funding source -- reasonably anticipated within the next 20 years.

The State Conformity Regulations specify that a **qualitative** analysis be prepared showing that both the Region's Plan and TIP address four broad planning and technical requirements. These include:

1. a financially constrained transportation network in each analysis year is used in the analysis,
2. the Determination relies on the latest planning assumptions,
3. the latest emissions models and estimates are used; and
4. that both the RTP and TIP generally enhance or expedite implementation of transportation control measures (TCMs) identified in the SIP.

It must also be documented that preparation of the Determination conformed with interagency consultation procedures described in the Rule. The Qualitative Analysis portion of the Determination is provided, below.

## **B. Analysis**

### **1. Financially Constrained Network.**

a. Requirement: *The State Rule requires that analysis of emissions must result from transportation improvements that are supportable with reasonably anticipated revenues.*

Finding: The 1995 RTP estimated reasonably available revenue for the 20-year plan period and approved a network in 2015 that could be achieved with the assumed revenue stream. This network is the basis of the current Determination. The 2005 network is a subset of this larger network and



reflects projects for which funding commitments have been made and the expected date of operation determined. The 2020 roadway network is the 2015 network except that some additional local system enhancement in Urban Reserve areas is anticipated as a result of developer provided facilities.

An additional five years of transit system expansion have also been accounted for, in consultation with Tri-Met, by deployment of the projected 1.5 percent annual service increase. The increased service hours attributable to the extra five years of revenue is evenly distributed through the 2015 transit network. In 2020, the model allocates transit demand that can be supported by projected service capacity. However, in some locations where road capacity is highly constrained, for instance in corridors serving Urban Reserve lands that are expected to start more intensive development after 2015, the model may allocate transit ridership in excess of service specifically allocated to the corridor. These kinds of supply/demand calibrations are expected to be resolved in the context of Tri-Met's annual service planning.

## **2. Consistency with the Latest Planning Assumptions (OAR 340-20-810).**

- a. Requirement: *The State Rule requires that Conformity Determinations be based "on the most recent planning assumptions" derived from Metro's approved "estimates of current and future population, employment, travel and congestion."*

Finding: The *quantitative* analysis (see Section E, below) employs a 1994 base year that reflects Metro's official estimates of population and employment calibrated to 1990 Census data. Metro has officially adopted a pop/em projection for 2020, which is the basis for analysis of emissions in that year. Population and employment for the 2005 and 2015 analysis years are interpolated between the 1994 base- and 2020 horizon-year pop/em projections.

Travel and congestion forecasts for each analysis years are derived from the pop/em data using Metro's regional travel demand model and the EMME/2 transportation planning software

Within subroutines of the model, Metro calculates the bike/walk mode split for calculated travel demand based on variables of trip distance, car per worker relationship, total employment within one mile, intersection density and a zone-based mixed use index of the ratio of total employment to total population. Both the population and employment estimates and the methodology employed by the EMME/2 model have been the subject of extensive interagency consultation and agreement (discussed further in Section C.4. below).

The resulting estimates of future year travel and congestion are then used with the outputs of the EPA approved MOBILE 5a-h emissions model to determine regional emissions. In all respects, the model outputs reflect input of the latest approved planning assumptions and estimates of population, employment, travel and congestion.

- b. Requirement: *The State Rule requires that changes in transit policies and ridership estimates assumed in the previous conformity determination must be discussed.*

Finding: The *transit policies* which guide modeled implementation of the North Corridor LRT service are consistent with previous Conformity modeling of the South/North service start: bus resources providing downtown radial service are shifted east off Interstate and Denver. New Express service is also instituted between Vancouver and the Exposition Center to generate transit patronage as a prelude to planned northern extension of LRT service to Vancouver. Previous short-haul service between former radial trunk routes is reconfigured to support new LRT stations and surrounding neighborhoods. This represents continuation of *existing transit policy* and its extension to the expanded LRT system.

Differences between the current and past Determinations concerning transit ridership, in general, and LRT ridership, in particular, are independently generated - as always - by the demographic, travel demand and mode split factors embedded in the regional travel model. Demographic assumptions have been updated to reflect Metro's newly adopted 2020 pop/em projections. Other significant changes concern selectively increased parking costs, expanded assumption of reduced cost or free transit pass programs, increased street connectivity and increased service hours. These factors are discussed in item C.2.c, below.

The only transit related variables not "internal" to the model that have been changed between the two analyses is:

- modification of the South/North LRT project into the Interstate MAX North Corridor LRT project,
- delay of the South Corridor LRT extension (delayed from 2003 to 2015 analysis year), and
- initiation of interim bus service in the McLoughlin corridor.

Within the South Corridor, transit assignment of trip demand is reduced by

delay of LRT service until the 2015 analysis year. Coincident with this delay, approximately 3,900 Park & Ride spaces previously assumed in the Corridor are absent in the 2005 analysis year of the current Determination. These two assumptions reduce allocation of travel demand to transit modes in the corridor. However, the reduction is partially offset by targeted funding, approved in the FY 2000 MTIP, for startup of McLoughlin Corridor Rapid Bus service.

Also, while the reduction of Park and Ride spaces in the South Corridor reduces transit mode share somewhat, it also eliminates some road capacity reductions that would otherwise have been generated in the model due to distribution of increased auto activity to the street network surrounding the lots.

The prior Determination assumed extension of light rail to the Airport. The current Determination has more fully integrated this assumption into the travel model. The prior Determination assumed interline service whereas the current Determination assumes through service. The Airport Extension is currently under construction.

- c. Requirement: *The State Conformity Regulations require that reasonable assumptions be used regarding transit service and increases in fares and road and bridge tolls over time.*

Finding: There are no road or bridge tolls in place in the metropolitan area and none are assumed in either the TIP, the RTP, or consequently, in the conformity determination, over time. The region is exploring feasibility of a Congestion Pricing Demonstration project. No decision to deploy such a project has been made and the Determination does not model evaluation of such a program.

Four other factors significantly effect model assumptions of transit mode choice including auto parking cost, transit fares, service hours and intersection density.

**Auto parking costs.** These are factored into the mode choice subroutines of the regional travel model. These costs are held constant to 1985 dollars.

Parking costs have been increased in the current Determination according to the percentages shown in Appendix 2. The previous Determination assumed parking costs would increase one percent above inflation in the Central Business and Lloyd Districts as a reflection of parking control strategies. Costs were held to inflation in all other districts. In the current Determination, the rate of increase in some additional districts, notably

Tier 1 and 2 Regional Centers and Station Areas, are increased somewhat beginning in the 2005 analysis year and escalating through the 2020 analysis year (see Appendix 2). The assumed increases are justified in light of commitment of regional funding to prepare feasibility analyses of broad-scale Transportation Management Association (TMA) startups of the type that exist in Downtown and the Lloyd Center District and to provide three years of initial public funding for nascent TMAs.

**Transit fares.** The three zone transit fare structure adopted in 1992 is held constant through 2020. User costs (for both automobile and transit) are assumed to keep pace with inflation and are calculated in 1985 dollars. Again though, it is assumed that transit fares in select analysis zones will decrease as a result of TMA formation and consequent employer subsidy of transit costs for employees, as with the Lloyd Center and Downtown TMA experiences. These transit fare reduction schedules are also shown in Appendix 2.

**Transit Service Hours.** Assumptions about service hours and transit vehicle headways also affect trip assignment to transit modes. Tri-Met's most recent payroll tax revenue assumptions indicate an ability to continue providing a 1.5 percent service hour increase through 2020. This service is reflected in the current Determination. The prior Determination assumed an annual 1.5 percent "usual and customary" service hour increase for regional bus service only until startup of the formerly proposed "IOS 1" of South/North LRT service. At 2004, this increment of new bus service was slightly reallocated throughout the region and feeder service within the LRT Corridor was reinforced. Thereafter, non-LRT service hours remained flat through 2015, and the Convention Center to Clark County LRT service was added.

**Intersection Density.** Technical studies conducted by Metro support the assumption that more local street connections to the regional collector and arterial system are associated with congestion reduction and increased transit mode choice. Metro policies and land use regulations are anticipated to stimulate local and privately funded increases of such intersection density in locations throughout the region. Appendix 2 reflects these assumption over time and with respect to targeted land uses.

- d. Requirement: *The State Conformity Regulations require that the latest existing information be used regarding the effectiveness of TCMs that have already been implemented.*

Finding: As discussed in the prior Determination, all non-transit, funding-based TCMs were satisfied through approximately 2006 by allocations made in the FY 98 MTIP. The FY 2000 MTIP extends this compliance by

funding significant Boulevard-project enhancement of both bike and pedestrian facilities on major regional facilities and by funding stand-alone bike and pedestrian improvements throughout the region. The 1.5 percent annual transit system expansion is included within the model assumptions and is reflected in the resulting transit mode split factor used in the quantitative analysis. Tri-Met revenue projections indicate capacity to sustain this increase through 2020. The bike and pedestrian system enhancements are also reflected in mode split assumptions of the model. Adequate resources are identified in the 1995 RTP Fiscal Constraint analysis to assure ongoing implementation of these TCMs.

Effectiveness of implemented and planned TCMs is reflected in emission credits approved by DEQ for use in this Determination's calculation of daily regional emissions. Credits were assumed for compact land form called for in the Region 2040 Growth Concept; the region's Voluntary Parking Ratio program and implementation of the Employee Commute Option (ECO) program. The ECO program credit has been reduced to reflect less than expected penetration of program activity to the region's employer base. The Voluntary Parking program has been eliminated due to very low employer participation.

Appendix 5 provides a more detailed analysis of the region's progress in implementing the growth management TCM. In summary, Washington County is on schedule for meeting both housing and employment targets. At present, Clackamas County appears approximately 25 percent short of its employment targets but Regional Center, Town Center and Main Street planning efforts currently in process are expected to increase overall capacities. Preliminary analysis shows that Multnomah County will achieve about 60 percent of its housing allocation and may request an exception for the Metro's Title 1 housing target. The County should meet all of its employment target. Also, work with Gresham to refine targets is on hold and work with Troutdale and Fairview is only just beginning. The City of Portland has completed its analysis and shows that it will meet both its housing and employment targets.

Overall, of the region's 27 jurisdictions reporting, 16 anticipate full compliance with regional housing and employment targets, including the City of Portland, Hillsboro, and Washington County, as of the August 1999 deadline. Preliminary calculations for Gresham and Beaverton are showing substantial compliance with the targets, but they have not completed their work.

Additionally, the most recent Urban Growth Report update (Metro, September 1999) indicates that the target for residential infill/redevelopment growth absorption is largely on track. Metro has set a

growth absorption target of 28.5 percent for infill and redevelopment. The rate in 1997 was 25 percent. Over the next two to five years, the rate is expected to fluctuate between 20 and 30 percent, indicating that this aspect of the growth management concept is on-target.

Finally, the Growth report continues to project that the supply of Gross Vacant Buildable Land, accounting for a 38.6 percent reduction for streets, schools, parks, places of worship, fraternal organizations, other utilities and endangered species-related regulatory restrictions, will remain adequate to accommodate anticipated growth through 2017. This projection is supported by many factors, including the fact that average lot size of newly permitted residential development has trended lower in each of the past several years and now stands at 6,200 sq. ft., well within the range anticipated in the 2040 growth plan.

### **3. Latest Emissions Model (OAR 340-20-820)**

- a. Requirement: *The State Conformity Regulations require that the conformity determination must be based on the most current emission estimation model available.*

Finding: As discussed in greater detail in item 6(d) of this Section and in Section III of this Determination, Metro employed EPA's recommended Mobile 5a-h emission estimation model in preparation of this conformity determination. The emissions factors were updated to 202. Additionally, Metro uses EPA's recommended EMME/2 transportation planning software to estimate vehicle flows of individual roadway segments. These model elements are fully consistent with the methodologies specified in OAR 340-20-1010.

### **4. Consultation (OAR 340-20-830)**

- a. Requirement: *The State Conformity Regulations require the MPO to consult with the state air quality agency, local transportation agencies, DOT and EPA regarding enumerated items. TPAC is specifically identified as the standing consultative body. (OAR 340-20-760(2)(b)).*

Finding: Fifteen specific topics are identified in the Regulations which require consultation. TPAC is identified as the Standing Committee for Interagency Consultation. TPAC, as allowed by the Rule, has deferred administration of the consultation requirements to a subcommittee, specifically, the TIP Subcommittee, augmented with Metro modeling staff. This committee has met on several occasions since adoption of the Rule

and has consulted as required on the enumerated topics. The subcommittee recommendations are reflected within this Determination qualitative analysis -- ***which has been submitted for full TPAC review and approval*** -- and address the following issues.

*i. Determination of which Minor Arterial and other transportation projects should be deemed "regionally significant."*

Metro models virtually all proposed enhancements of the regional transportation network proposed in the TIP, the RTP and by local and state transportation agencies. This level of detail far exceeds the minimum criteria specified in both the State Rule and the Metropolitan Planning Regulations for determination of a regionally significant facility. This detail is provided to ensure the greatest possible accuracy of the region's transportation system predictive capability. The model captures improvements to all principal, major and minor arterial and most major collectors. Left turn pocket and continuous protection projects are also represented. Professional judgement is used to identify and exclude from the model those proposed intersection and signal modifications, and other miscellaneous proposed system modifications, (including bicycle system improvements) whose effects cannot be meaningfully represented in the model. The results of this consultation were used to construct the analysis year networks identified in Appendix 3 of this Determination

*ii. Determine which projects have undergone significant changes in design concept and scope since the regional emissions analysis was performed.*

The only truly significant scope change concerns modification of the South/North LRT proposal into the North Interstate MAX project (with its corresponding reduction of Interstate Avenue peak direction capacity), and delay of the South Corridor LRT extension (including associated reduction of Park & Ride spaces in the McLoughlin Corridor). These issues were addressed in the Summary section. Timing and scope of other project phases, including the I-5/217/Kruse Way Interchange and the Hwy 213/Beavercreek Road intersection have been integrated into the current Determination, though no specific assessment has been made of whether these changes are regionally significant. Metro is not aware of more current design assumptions for any regionally significant project than those currently included in the regional transportation model.

*iii. Analysis of projects otherwise exempt from regional analysis.*

All projects capable of being modeled have been included in the Conformity Analysis quantitative networks. ODOT has received

permission to continue operation of an HOV demonstration project in the I-5 North Corridor until conclusion of the Interstate Bridge painting project. This demonstration project, and its continued operation as mitigation of the painting project, were determined to be insignificant after consultation between Metro, ODOT, DEQ, and FHWA.

*iv. Advancement of TCMs.*

All past and present TCMs have been implemented on schedule. There exist no obstacles to implementation to overcome.

*v. PM10 Issues.*

The region is in attainment status for PM10 pollutants.

*vi. forecasting vehicle miles traveled and any amendments thereto.*

Section I. Summary and Section II.B.2. address changed model variables that significantly affect mode split assumptions of the travel model and thus, VMT. No explicit change or post model correction of VMT has occurred in the analysis.

*vii. determining whether projects not strictly "included" in the TIP have been included in the regional emission analysis and that their design concept and scope remain unchanged.*

The 1995 RTP Financially Constrained network includes all federal, state and locally funded projects reasonably anticipated within the 2015 horizon year. The travel network also assumes developer provided improvement of local street connections in Urban Reserve lands that are projected to begin populating between the 2015 and 2020 analysis years.

*viii. project sponsor satisfaction of CO and PM10 "hot-spot" analyses.*

This issue is not germane to determination of regional conformity.

*ix. evaluation of events that will trigger new conformity determinations other than those specifically enumerated in the rule.*

At this time, the only likely trigger for a new Determination would be a request from ODOT to convert the p.m. peak period north I-5 HOV lane to permanent operation, or to retain the lane as a general purpose travel lane between the Lombard and Delta Park interchanges.

*x. evaluation of emissions analysis for transportation activities which*



*cross borders of MPOs or nonattainment or maintenance areas or basins.*

The Portland-Vancouver Interstate Maintenance Area (ozone) boundaries are geographically isolated from all other MPO and nonattainment and maintenance areas and basins. Emissions assumed to originate within the Portland-area (versus the Washington State) component of the Maintenance Area are independently calculated by Metro. The Clark County Regional Transportation Commission (RTC) is the designated MPO for the Washington State portion of the Maintenance area. Metro and RTC coordinate in development of the population, employment and VMT assumptions prepared by Metro for the entire Maintenance Area. RTC then performs an independent Conformity Determination for projects originating in the Washington State portion of the Maintenance Area.

Conformity of projects occurring outside the Metro boundary but within the Portland-area portion of the Interstate Maintenance Area were assessed by Metro under terms of a Memorandum of Understanding between Metro and all potentially affected state and local agencies. The Region 1 STIP has not included any funding for new modernization projects outside the MPO boundary since adoption of the 1998 Determination and no projects affecting state facilities nor any local projects in the area's subject to the MOU were declared to the MPO for this determination. This issue was raised in the Interagency Consultation subcommittee of TPAC prior to the start of quantitative modeling. Additionally, as part of the RTP Update process, the regional model has been extensively reviewed by local jurisdictions for accurate representation of local and regional facilities throughout the past year.

- xi. disclosure to the MPO of regionally significant projects, or changes to design scope and concept of such projects that are not FHWA/FTA projects.*

No amendment of the Financially Constrained network, except for the revisions to the South/North LRT project scope and timing have been declared to the MPO. ODOT Headquarters environmental staff consult with the MPO regarding potentially significant modification of scope and concept of approved projects moving through the design pipeline.

- xii. the design schedule, and funding of research and data collection efforts and regional transportation model development by the MPO.*

This consultation occurs in the course of MPO development and adoption of the Unified Planning Work Program.

*xiii. development of the TIP.*

TIP development is routinely undertaken and approved by TPAC which includes membership by all consultative bodies identified in the Rule.

*xiv. development of RTPs.*

RTP development is routinely undertaken and approved by TPAC. An updated RTP is anticipated in the Winter of 1999. A new Determination will be prepared upon its adoption.

*xv. establishing appropriate public participation opportunities for project level conformity determinations.*

The subcommittee has not yet discussed this issue either with respect to current practices, or desirable alternatives, if any. However, Metro and DEQ staff have discussed the issue. In line with other project-level aspects of conformity determinations, it would appear most appropriate that project management staff of the state and local operating agencies be responsible for any public involvement activities that may be deemed necessary in making project-level conformity determinations.

**4. Timely Implementation of TCMs (OAR 340-20-840).**

- a. Requirement: *The State Conformity Regulations require MPO assurance that "the transportation plan, [and] TIP... must provide for the timely implementation of TCMs from the applicable implementation plan."*

Finding: As described in the prior Determination, all funding based TCMs have been satisfied through approximately 2006. The current TIP allocations merely extend the degree to which bike and pedestrian facilities are being implemented over and above the level required in the SIP. Additionally, the 1.5 percent annual transit service increase is now anticipated through 2020, based on the most recent forecast of Tri-Met's employer tax receipts.

**5. Other Qualitative Conformity Determinations and Major Assumptions**

- a. Findings: The Regional Transportation Plan (RTP) is prepared by Metro. SIP provisions are integrated into the RTP as described below, and by extension into subsequent TIPs which implement the RTP.

The scope of the RTP requires that it possess a guiding vision which recognizes the inter-relationship among (a) encouraging and facilitating economic growth through improved accessibility to services and markets; (b) ensuring that the allocation of increasingly limited fiscal resources is driven by both land use and transportation benefits; and (c) protecting the region's natural environment in all aspects of transportation planning process. As such, the RTP sets forth three major goals:

- No. 1 - Provide adequate levels of accessibility within the region;
- No. 2 - Provide accessibility at a reasonable cost; and
- No. 3 - Provide adequate accessibility with minimal environmental impact and energy consumption.

Three objectives of Goal No. 3 directly support achievement of National Ambient Air Quality Standards (NAAQS):

1. To ensure consideration of applicable environmental impact analyses and practicable mitigation measures in the federal RTP decision-making process.
2. To minimize, as much as practical, the region's transportation-related energy consumption through improved auto efficiencies resulting from aggressive implementation of Transportation System Management (TSM) measures (including freeway ramp metering, incident response and arterial signal optimization programs) and increased use of transit, carpools, vanpools, bicycles, walking and TDM [Transportation Demand Management] programs such as telecommuting and flexible working hours.
3. To maintain the region's air quality.

Performance Criteria: Emissions of hydrocarbon and oxides of nitrogen by transportation-related sources, in combination with stationary and area source emissions, may not result in the federal eight hour ozone standard of .08 ppm being exceeded. Emissions of Carbon Monoxide from transportation-related sources may not, in combination with other sources, contribute to violation of the federal standard of 9 ppm. The three-year Approved Program Element of the region's Transportation Improvement Program (TIP) should be consistent with the SIP for air quality.

These objectives are achieved through a variety of measures affecting transportation system design and operation. The plan sets forth objectives and performance criteria for the highway and transit systems

and for transportation demand management (TDM).

The highway system is functionally classified to ensure a consistent, integrated, regional highway system of principal routes, arterial and collectors. Acceptable level-of-service standards are set for maintaining an efficient flow of traffic. The RTP also identifies regional bicycle and pedestrian systems for accommodation and encouragement of non-vehicular travel. System performance is emphasized in the RTP and priority is established for implementation of transportation system management (TSM) measures.

The transit system is similarly designed in a hierarchical form of regional transitways, radial trunk routes and feeder bus lines. Standards for service accessibility and system performance are set. Park-and-ride lots are emphasized to increase transit use in suburban areas. The RTP also sets forth an aggressive demand management program to reduce the number of automobile and person trips being made during peak travel periods and to help achieve the region's goals of reducing air pollution and conserving energy.

In conclusion, review by Metro and the Oregon Department of Transportation of the 1995 Interim Federal RTP and the ozone and carbon monoxide portions of the SIP, has determined that the RTP is in conformance with the SIP in its support for achieving the NAAQS. Moreover, the RTP provides adequate statements of guiding policies and goals with which to determine whether projects not specifically included in the RTP at this time may be found consistent with the RTP in the future. Conformity of such projects with the SIP would require interagency consultation.

- b. Findings: As previously discussed, this Determination assumes broader implementation of Transportation Management Associations of the type operated in the Central City and Lloyd Center Districts. This stems largely from commitments in the last three TIP's of funding for TMA demonstration projects, and in the FY 2000 TIP, of "start-up" and capital assistance for such groups. Consequently, the regional travel model expands the number of zones that assume increased parking costs, employer transit subsidy programs.
- c. Findings: The Determination assumes 2020 population and employment will be accommodated on the 2015 roadway network. This assumes no new revenue for system expansion in the final five years of the analysis.
- d. Findings: The Determination assumes transit service hours will continue to expand at the rate of 1.5 percent a year between 2015 and 2020, consistent with assumptions of the Financially Constrained Network. Metro and Tri-Met concur that this added revenue would reinforce transit

service to Urban Reserve areas that are expected to gain significant population during this period. However, the RTP does not speak directly to this issue because the Urban Reserves had not been identified at the time the document was adopted and Urban Reserve areas are not expected to absorb significant population until after the 2015 horizon year of the current RTP.

### III. QUANTITATIVE ANALYSIS

#### A. Background

Under OAR 340-20-890, a finding of TIP and RTP conformity requires that a quantitative analysis be conducted. This must demonstrate that emissions resulting from the entire transportation system, including all regionally significant projects expected within the time frame of the plan and TIP, must fall within budgets established in the maintenance plan for criteria pollutants. In the Portland-Vancouver AQMA these include ozone precursors (VOC and NOx) and carbon monoxide (CO). A specified methodology must be used to calculate travel demand, distribution and consequent emissions (OAR 340-20-1010). The Portland metropolitan area has the capability to perform such a quantitative analysis.

#### B. Analysis

##### 1. Determine Analysis Years.

- a. Requirement: *The State Conformity Regulations) states the first analysis year should be no later than 10 years from the base year used to validate the transportation demand planning mode I (340-20-770), that subsequent analysis years be no greater than 10 years apart and that the last year of the RTP must be an analysis year (340-20-890).*

Finding: Pursuant to OAR 340-20-770 and -890 and after consultation with DEQ and the federal EPA, Metro has adopted 2005, 2015 and 2020, as analysis years, as described in the Summary. The year 2005 is actually 11 years after the 1994 base year of the model. The Determination is supplying the Interstate MAX opening day ridership estimate. It was agreed that benefits of a 2004 and 2005 analysis year were insufficient to warrant running both years simply to keep the first analysis year within 10 years of the base-year. The 2015 analysis year is within 10 years of the first analysis year, is also a double budget year and is the RTP horizon year. The 2020 analysis year responds to FHWA concern for an "active" 20-year analysis period.

##### 2. Demonstrate TIP Adherence to Motor Vehicle Emissions Budget.

- a. Requirement: *OAR 340-20-900 require that the TIP must meet four tests to demonstrate that it is consistent with maintenance plan emissions budgets.*
  - i. *each program year of the TIP is consistent with reasonably anticipated revenue.*

Finding: The FY 200 MTIP is consistent with expected federal revenue through FY 2003. No change to the RTP revenue assumptions has been made and they remain the region's official estimate of reasonably anticipated revenue.

*ii) the TIP is consistent with the RTP(so that plan analysis shall also cover TIP emissions).*

Finding:

ii-a) The travel network used in the emissions analysis(see Appendix 3) comprises both the TIP and RTP networks, as well as both significant and insignificant local and/or privately financed projects expected in the time-frame of the plan. The network table is comprehensive; regionally significant TIP projects, including those whose scope and concept have recently been revised, are captured in the travel network used to analyze RTP emissions.

ii-b) Appendix 3 identifies the year in which operation of the TIP funded projects is expected. This demonstrates that the TIP contains the projects that must be started to achieve the system envisioned in the RTP in relation to analysis years of the Determination.

ii-c) The scope and concept of the TIP projects is consistent with that assumed in the RTP.

Note: Numerous projects in all analysis years are incapable of representation within the EMME/2 model. The vast majority of these projects are bicycle and pedestrian projects/programs and other TSM activities. (This class of projects is identified in Appendix 3 with "no" entered in the "Can Be Modeled" column.) Virtually all of these projects would be expected to decrease emissions as they support non-auto and/or non-SOV travel modes, or otherwise *marginally* enhance the efficiency of the highway network, reducing emissions of CO and Ozone precursor compounds).

Historically, the region has not taken credit for benefits theoretically attributable to this class of projects. This has been mostly because the region's past quantitative analyses have not needed emission reductions in excess of those provided by projects capable of representation within the model. Given the lack of need, and because the ad hoc methodologies for calculating such off-model benefits are very labor intensive, are in most cases not well established and/or accepted and thus are subject to controversy when employed to demonstrate reductions of automotive emissions, Metro has chosen not to seek emission reduction credit for these types of projects. However, in future years, as nation-wide monitoring of CMAQ projects provides more reliable data about benefits of such projects, or should this year's analysis require

supplemental emission reductions, the region may take credit for these activities.

### **3. Perform the Emissions Impact Analysis.**

Finding: Calculations were prepared, pursuant to the methods specified at OAR 340-20-1010, of CO and Ozone precursor pollutant emissions assuming travel in each analysis year on networks identified in Appendix 3. A technical summary of the regional travel demand model, the EMME/2 planning software and the Mobile 5a methodologies is available from Metro upon request. The methodologies were reviewed by the consultation subcommittee and by TPAC.

### **4. Determine Conformity.**

- a. Requirement: *Emissions in each analysis year must be consistent with (i.e., must not exceed) the budgets established in the maintenance plan for the appropriate criteria pollutants (OAR 340-20-890).*

Finding: Emissions in each analysis year resulting from projects identified in the FY 2000 TIP and the 1995 RTP, including those attributable to revised North and South Corridor LRT assumptions, fall within the motor vehicle emissions budgets established for those years in the maintenance plan. Tables 1, 2 and 3, below, summarize these emissions and show that the newly approved TIP and RTP projects whose scope and concept have changed since the last Determination, conform with the SIP.



---

**TABLE 1****Emissions Summary**

---

**1995 RTP EMISSIONS COMPARED TO CO AND OZONE  
BUDGETS**

		<b>Winter CO</b> (1,000s lbs)	<b>Summer HC</b> (tons per day)	<b>Summer NOx</b> (tons per day)
<b>Budget</b>	<b>2005</b>	979,000	42	51
<b>MTIP/RTP</b>		691,000	36	51
<b>Difference</b>		288,000	6	0
<b>Budget</b>	<b>2015</b>	788,000	40	55
<b>MTIP/RTP</b>		716,000	36	55
<b>Difference</b>		72,000	4	0
<b>Budget</b>	<b>2020</b>	842,000	40	59
<b>MTIP/RTP</b>		740,000	38	59
<b>Difference</b>		102,000	2	0

**TABLE 2**

**1995 RTP EMISSIONS  
COMPARED TO CCTMP  
SUB-AREA CO BUDGET**

1,000 Lbs/day

**Winter CO**

---

<b>Budget</b>	<b>2005</b>	91
<b>RTP</b>		63
<b>Difference</b>		28
<hr/>		
<b>Budget</b>	<b>2015</b>	70
<b>RTP</b>		58
<b>Difference</b>		12
<hr/>		
<b>Budget</b>	<b>2020</b>	75
<b>RTP</b>		58
<b>Difference</b>		17

**TABLE 3**

**1995 RTP EMISSIONS  
COMPARED TO 82ND AVENUE  
SUB-AREA CO BUDGET**

1,000 Lbs/day

**Winter CO**

---

<b>Budget</b>	<b>2005</b>	5
<b>RTP</b>		4
<b>Difference</b>		1
<hr/>		
<b>Budget</b>	<b>2015</b>	4
<b>RTP</b>		4
<b>Difference</b>		0
<hr/>		
<b>Budget</b>	<b>2020</b>	4
<b>RTP</b>		4
<b>Difference</b>		0

h:\1.Merry\Docs\00 tip\conformity\FY 00 AQ Conformity  
September 23, 1999  
TW:tw

Appendix 1

TIP #	RTP#	Project#	Modeled?	Project Description	Comments
CBi10	6102	908	No	Wilsonville: Boeckman/Town Center Loop	
CBi3	5095	532b	No	Phillip Creek Greenway Trail	
CBi7	5094	532a	No	Clack Reg Ctr. Trail	
CBi9	6105	907	No	Town Cntr. Park: Bike/Ped Connection	
CM2			No	Harmony/Linwood/Railroad Ave. PE	grade separation at RR
CM5			No	Sunnyside Rd./Mt. Scott Creek	already in committed
CM7			No	Clack Co ITS/ATMS	
CP1	5211	637b	No	Scott Creek Lane Ped Path	
CR2	5038	463	No	Johnson Crk. Blvd.:36th/45th	
CTr2	5169	593	No	Will Shoreline Trestle/Track Repair	
MBi1	2053	409b	No	Gresham/Fairview Trail	
MM1			No	207th Connector: HalsEy/Glisan	add'l funding for cost overruns
MM7			No	Gresham Mult Co. ITS	
PBi6a	1081	129	No	E. Bank Trail -OMSI/Springwater	
PBi6b			No	E. Bank Trail -Phase2 (ROW Only)	
PBi9	1146	183	No	Greeley/Interstate	
PBL1	1080	123	No	Hawthorne: 20th/55th	
PBL3			No	W. Burnside: Brgd/NW 23rd	
PBr2a			No	Morrison Electrical	
PBr2b			No	Burnside Electrical	
PM1			No	Portland Arterial/Frwy ITS	
PM6			No	MLK/Interstate ITS	
PM10			No	SE Foster Rd./Kelly Creek	
PP2	1168	195	No	Capitol Hwy: Bertha/Bvtn Hltd.	
PP5			No	Red Electric Line: Will Prk/Oleson	
RP1g1			No	Core Reg. Planning Program	
RP1g3			No	Regional Freight Program Analysis	
RP1g5			No	OPB Pilot	
RP1g6			No	I-5 Trade Corridor Study	
RTOD1			No	Metro TOD Program	
RTr1			No	Reg. Contribution for Bus Purchase	
Rtr2			No	Service Increase for Reg/T.C. TCL	
TDM1			No	Regional TDM Program	
TDM2			No	Portland Area Telecommuting	
TDM3			No	ECO Information Clearinghouse	
TDM4			No	Region 2040 Initiatives	
TDM5			No	TMA Assistance Program	
TDM6			No	SMART TDM Program	
TE1			No	Pioneer Courthouse	
TE2			No	Portland Bike Signage	
TE3	4040	335	No	NE 47th Environmental Restoration	
WBi1	3071	78b	No	Fanno Creek: Allen/Denney	
WBi10	6007	78a	No	Fanno Creek Trail Phase 2 (PE/RW?)	
WBi5	3094	706	No	Comell Rd. Elam Young/Ray	
WM4			No	Wash. Co. ATMS	
WP4	3194	803b	No	Sentinel Plaza:Comell/Cedar Hills/113th	
WP5	3095	695	No	SW 170th: Merlo/Elmonica LRT Station	
WP7	3075	687	No	Cedar Hills: Walker/Butner	
WTR1			No	Wash. Co. Commuter Rail	
WTr2			No	Wash. Co. Bus Stop Enhancement Program	
PF1	1034	97	Yes	Lower Albina Overcrossing	centroid connector only - 2005
PF2	4062	295a	Yes	N. Main Dr. Reconstruction	cap increase from 1200 to 2400 - 2005
PF10	1053	111	Yes	Naito Pkwy: Davis/Market	BLVD design - reduce cap by 200 - 2005
WM5	3138	741	Yes	Murray O'xing: Millikan/Terman	increase cap from 900 to 1650 - 2005
WM13	3113	726b	Yes	SE 10th: E. Main/ SE Baseline - PE only	add prj. in 2005 network - SB rt turn lane
WM17	6066	878	Yes	I-5/Nyberg Interchange (PE/ROW)	widen oxing & SB off-ramp - 2015 network
WM19	6014	835	Yes	SW Greenburg Rd.: Wash. Sq./Tiedeman	add prj. in 2005 network - widen to 5 lanes
CM14	5018/5019	38a/38b	Yes	Hwy. 213/ Beaver Creek Rd.	add ph1 in 2005 - grade sep by 2015
MM3	2081	359	Yes	223rd O'xing (PE RPW)	increase cap by 200 - 2015
CBL1	5069	499	Yes	Harmony Rd.: 82nd/Fuller	BLVD design - reduce cap by 200 - 2005
CBL2			Yes/No	Willamette Dr. - ASI/McKillican	PE only cap increase, then decrease to original cap
CBL3	5049	462	Yes	McLoughlin: Harrison/SPRR Xing	BLVD design - reduce cap by 200 - 2005
MBL1	2047	394	Yes	Division St.:Walulla/Kelly	BLVD design - reduce cap by 200 - 2005
WBi2	3074	686	Yes	Hall Blvd: 12th/Allen	increase cap on Hall approaches to Allen-05
WBL1	3193	792c	Yes	Comell Rd: Trail Ave/Saltzman (ROW funds)	BLVD design - reduce cap by 200 - 2005
WBL2	3169	764	Yes	Main St.: 10th/20th Cornelius	BLVD design-2005, widen to 3 w/blvd-2021
WBL6	3034	674 (RND3)	Yes	Hall Blvd: Cedar Hills/Hocken (PE)	extend Hall as 3 lanes - 2005
WM1	3030	666b	Yes	Farmington Rd.: Hocken/Murray	PE only REMOVE from 2005 network - add in 2015
CBi2	5080	512a	Yes	Fuller Rd.: Harmony/King	widen Fuller, ped only: Monroe to King-2005
PBi1	1062	126	Yes	Morrison Bridge PED/BIKE Access	PE only replace 1 EB auto lane with bike way - 2005

2040 Grouping	Intersection Density				Parking Factors				Transit Pass Factor				Fareless Square			
	2020	2015	2005	1998	2020	2015	2005	1998	2020	2015	2005	1998	2020	2015	2005	1998
Central City1	20	20	20	20	6.08	5.87	5.66	5.45	60%	60%	60%	60%	yes	yes	yes	yes
Central City 2	20	20	20	20	3.94	3.65	3.35	3.06	60%	60%	60%	60%	yes	yes	yes	
Central City3	20	20	20	20	2.96	2.74	2.52	2.30	65%	65%	65%	65%				
Central City4	20	20	20	20	3.94	3.65	3.35	3.06	65%	65%	65%	65%				
Central City 5	18	17	17	16	3.04	2.79	2.55	2.30	65%	65%	65%	65%				
Tier 1 Reg. Centers	14	14	14	14	0.80	0.53	0.27	0	80%	86%	93%	100%	yes	yes		
Tier 2 Reg. Centers	10	10	10	10	0.60	0.40	0.20	0	95%	97%	98%	100%				
Tier 1 Sta. Comm.	12	12	12	12	0.80	0.53	0.27	0	80%	86%	93%	100%				
Tier 2 Sta. Comm.	10	10	10	10	0.60	0.40	0.20	0	95%	97%	98%	100%				
Tier 1 Town Centers	16	16	16	16	0.45	0.30	0.15	0	85%	90%	95%	100%				
Tier 2 Town Centers	10	10	10	10	0.36	0.24	0.12	0	100%	100%	100%	100%				
Tier 3 Town Centers	8	8	8	8	0.28	0.19	0.09	0	100%	100%	100%	100%				
Tier 4 Town Centers	8	7	7	6	0.18	0.12	0.06	0	100%	100%	100%	100%				
Tier 1 Mainstreets	14	14	14	14	0.45	0.30	0.15	0	100%	100%	100%	100%				
Tier 2 Mainstreets	8	8	8	8	0.36	0.24	0.12	0	100%	100%	100%	100%				
Corridors	10	9	9	8	none	none	none	none	100%	100%	100%	100%				
Inner N'hoods	10	10	10	10	none	none	none	none	100%	100%	100%	100%				
Outer Hoods Tier 1	8	7	7	6	none	none	none	none	100%	100%	100%	100%				
Outer Hoods Tier 2	6	6	6	6	none	none	none	none	100%	100%	100%	100%				
Employment Areas	8	7	7	6	none	none	none	none	100%	100%	100%	100%				
Ind. Areas Tier 1	10	10	10	10	none	none	none	none	100%	100%	100%	100%				
Ind. Areas Tier 2	8	8	8	8	none	none	none	none	100%	100%	100%	100%				
Greenspaces	6	6	6	6	none	none	none	none	100%	100%	100%	100%				
Rural Reserves	6	6	6	6	none	none	none	none	100%	100%	100%	100%				
PDX Special Area 1	*	*	*	*	6.14	5.93	5.71	5.5	60%	74%	87%	100%				
OHSU Spec. Area 2	*	*	*	*	1.86	1.72	1.59	1.45	60%	60%	60%	60%				
Zoo Special Area 3	*	*	*	*	1.86	1.24	0.62	0	100%	100%	100%	100%				
SMART Spec Area4	*	*	*	*	*	*	*	*	*	*	*	*	yes	yes	yes	yes

\* Use parent zone values

2020 = Existing Resources/Committed System

APPENDIX 3: FY 2000 MTIP Conformity Determination Network

Jurisdiction	RTP		Project Location	Network Yr Modeled	Able to Model	Existing		Proposed		Atlas #
	No.	Project Name				No.	Capacity	No.	Capacity	
Clackamas	65	147th Ave. Realignment	147th Ave. between Aldridge Rd., Sunnyside Rd., and 142nd Ave.	2005	yes	2		3		5022
Clackamas		82nd Dr.: Evelyn St./Jennifer St. to Hwy. 212	Evelyn/Jennifer to Hwy 212	2005	yes	2	900	3	1200	1007
Clackamas		82nd Dr.: Gladstone Interchange to Evelyn St./Jennifer St.	Gladstone Interchange to Evelyn/Jennifer	2005	yes	2	900	3	1200	123
Clackamas	9	92nd, Ave.: Idleman Rd. to the Multnomah County Line	Idleman to Multnomah Co. line	2005	yes	2	700	3	900	125
Clackamas	1	Beavercreek Rd.: Molalla Ave.	Beavercreek/Molalla intersection	2005	yes	0/3	0/900	3/5	900/1800	855
Clackamas	62	Hwy. 43 (State St.): Terwilliger Blvd. to McVey Ave.	Terwilliger to McVey	2005	yes				+ 50	4081
Clackamas	3	I- 205 Frontage Rd.: Sunnyside Rd. to 82nd Ave.	Sunnyside to 92nd east of I-205	2005	yes	0	0	3/5	900/1800	163
Clackamas		I- 205: Sunnybrook Rd. Split Diamond Interchange	Split diamond interchange	2005	yes	Phase 1 - 2005		Phase 2 - 2015		86
Clackamas	66	Jennifer St. Ext./135th Ave. Improvement	130th Ave. to 135th Ave.   Jennifer St. to Hwy. 212/224	2005	yes	0/2		2		5023
Clackamas	5	Johnson Creek Blvd.: Linwood Ave.	Johnson Creek/Linwood intersection	2005	yes	2	900	3	1000	130
Clackamas	59	Kruse Way: Westlake Dr. Intersection	Westlake	2005	yes		1600		1800	4080
Clackamas	64	McVey St.: South Shore Blvd.	South Shore	2005	yes		1000/1800		1200/2000	4062
Clackamas	6	Sunnybrook Ext.: 93rd Ave. to Sunnyside Rd. at 108th Ave.	93rd (I-205) to Sunnyside at 108th	2005	yes	0	0	5	1800	769
Clackamas	14	Sunnyside Rd.: 122nd Ave. to 152nd Ave.	122nd to 152nd	2005	yes	3	900	5	1800	138
Clackamas	14	Sunnyside Rd.: 108th Ave. to 122nd Ave.	108th to 122nd	2005	yes	3	900	5	1800	138
Clackamas		Webster Rd.: Theissen Rd.	add turn lane to Webster Street	2005	yes	2	900	3	1100	139
Clackamas	39	122nd Ave./129th Ave.: Sunnyside Rd. to King Rd.	Sunnyside to King Road	2015	yes	2	700	3	900	4021
Clackamas	10	122nd Ave.: Sunnyside Rd. to Hubbard Rd.	Sunnyside to Hubbard	2015	yes	2	700	3	900	122
Clackamas	61	Boones Ferry Rd.: I-5 to Country Club Dr.	I-5 to Country Club	2015	yes				+ 50	4080
Clackamas	82	Johnson Creek Blvd.: 45th Ave. to 82nd Ave.	45th to 82nd Avenue	2015	yes	2	900	3	1000	131
Clackamas	4	Monterey Ave. Overpass: Monterey Ave. to new Frontage Rd.	Over I-205 to frontage road	2015	yes	0	0	5	1800	133
Clackamas	11	Stafford Rd.: Borland Rd.	Stafford/Borland Road intersection	2015	yes	2	1000	4	1200	134
Gresham		181st: I-84 to Glisan Traffic Signal Optimization	181st: I-84 to Glisan	2005	yes			add 50 capacity		4032
Gresham		1st St. (Bull Run Rd.): Burnside Rd. to 258th Ave.	Burnside to 257th	2005	yes	2	700	3	900	3
Gresham		Burnside Rd.: Eastman Pkwy to Powell Traffic Signal Opt.	Burnside: Eastman Pkwy to Powell	2005	yes			add 50 capacity		4033
Gresham		Civic Neighborhood Central Collector: Burnside Rd. to Division St.	Burnside to Division	2005	yes	0	0	2	500	4031
Multnomah	48	181st Ave.: I- 84 to Halsey St.	I-84 EB ramp to Halsey Street	2005	yes			3 (SB)	1800	4150
Multnomah	57	182nd Ave.: Division St. Intersection	Division Street	2005	yes				+100	4155
Multnomah	58	185th Ave.: Realignment	Sandy Boulevard	2005	yes					4171
Multnomah	59	202nd Ave./Birdsdale Ave.: Powell Blvd. Intersection	Powell Boulevard	2005	yes					4156
Multnomah	3	207th Connector: Halsey St. to 223rd Ave.	Halsey St to Glisan St/223rd Ave	2005	yes	0	0	5	1800	864
Multnomah	80	223rd Ave./Fairview Ave.: Glisan St. Intersection	Glisan Street	2005	yes		2100			4157
Multnomah	6	223rd Ave.: Glisan St. to Halsey St.	Glisan St to Halsey St	2005	yes	3	900	5	1800	4
Multnomah	64	242nd Ave. (Hogan Dr.): Palmquist Rd. Intersection	Palmquist Road	2005	yes					4167
Multnomah	63	242nd Dr. (Hogan Dr.): Stark St. Intersection	Stark Street	2005	yes					4165
Multnomah		257th Ave. (Kane Rd.)/1st St. (Bull Run Rd.) Intersection	add left turn lanes on all three approaches	2005	yes	2	700	3	900	178
Multnomah	66	257th Ave. (Kane Rd.): Powell Valley Rd. Intersection	Powell Valley Road	2005	yes					4166
Multnomah	13	Cherry Park Rd.: 242nd Dr. to 257th Ave. (1896)	242nd Dr. to 257th Ave	2005	yes	3	1000	5	1800	180
Multnomah	19	Glisan St.: 223rd Ave. to 242nd Ave.	223rd Ave to 242nd Dr	2005	yes	2	900	5	1800	24
Multnomah		Halsey St./223rd Ave. Intersection	add left turn lanes on all approaches	2005	yes	2	900	3	1000	177
Multnomah	4	Halsey St.: 190th Ave. to 207th Ave.	190th Ave to 207th Ave	2005	yes	2	900	5	1800	204
Multnomah	1	Halsey St.: 207th Ave. to 223rd Ave.	207th Ave to 223rd Ave	2005	yes	2	900	5	1800	25
Multnomah	24	Halsey St.: 223rd Ave. to 238th Dr.	223rd Ave to 238th Dr	2005	yes	2	900	3	1200	72
Multnomah	47	I- 84: 181st Ave. Interchange (2005)	Improvements to ramps and 181st	2005	yes					4149
Multnomah	11	Jenne Rd.: Foster Rd. to Powell Blvd.	2050' NE of Foster to 800' S of Powell	2005	yes	2	700	2	750	29
Multnomah		Orient Dr./257th Ave. Intersection	add SB left turn lane on Kane	2005	yes	2	700	3	800	178
Multnomah		Orient Dr./282nd Ave. Intersection	add turn lanes on all approaches	2005	yes	2	700	3	900	9991
Multnomah	49	Powell Blvd Widening: Gresham City Limits to Eastman Pkwy.	Gresham CL to Eastman	2005	yes	2		5		5060
Multnomah	49	Powell Blvd. Widening: Eastman Pkwy. to Gresham City Limits	Gresham CL to Eastman	2005	yes	2		5		5060
Multnomah	61	Regner Rd.: Roberts Ave. Intersection	Roberts Avenue	2005	yes					4158
Multnomah	2	Stark St.: 257th Ave. (Kane Rd.) to Troutdale Rd.	257th Ave. to Troutdale Rd	2005	yes	2	900	5	1800	9994
Multnomah	55	181st Ave.: Burnside St. Intersection	Burnside Street	2015	yes					4153
Multnomah	54	181st Ave.: Glisan St. Intersection	Glisan Street	2015	yes					4152
Multnomah	53	181st Ave.: Halsey St. Intersection	Halsey Street	2015	yes					4151

APPENDIX 3: FY 2000 MTIP Conformity Determination Network

Jurisdiction	RTP		Project Location	Network Yr	Able	Existing		Proposed		Atlas #
	No.	Project Name		Model	to Model	No.	Capacity	No.	Capacity	
Multnomah	56	181st Ave.: Stark St. Intersection	Stark Street	2015	yes					4154
Multnomah		242nd Ave.: Johnson Creek to Palmquist Rd.	Johnson Creek to Palmquist	2015	yes	3	900	5	1800	182
Multnomah	65	257th Ave. (Kane Rd.): Stark St. Intersection	Stark Street	2015	yes					4164
Multnomah	62	Burnside St.: Division St. Intersection	Division Street	2015	yes					4168
Multnomah		Division & Troutdale Rd.	add turn lanes on all approaches	2015	yes		700/900		800/1000	20
Multnomah		Division St.: 182nd Ave. to 257th Ave. (Kane Rd.)	Division: 182nd to 257th	2015	yes				add 50 capacity	4162
Multnomah		Division St.: 60th Ave. to 174th Ave.	Division: 60th to 174th COP	2015	yes				add 50 capacity	4159
Multnomah	68	Halsey St. & 238th Ave.	238th Avenue	2015	yes		900/1400		1200/1800	26
Multnomah		Powell Blvd.: 11th Ave. to 98th Ave.	Powell: 11th to 98th COP	2015	yes				add 50 capacity	4161
Multnomah		Sandy Blvd.: Burnside St. to 82nd Ave.	Sandy: Burnside to 82nd COP	2015	yes				add 50 capacity	4160
ODOT		207th Ave. Connector: Halsey St. to Sandy Blvd.	Halsey to Sandy	2005	yes		0		1800	8644
ODOT		Barnes Rd. Extension: Hwy. 217 to Cedar Hills Blvd.	Hwy 217 to Cedar Hills	2005	yes		0	WB	2800	37
ODOT		Boones Ferry Rd. Connector: Boones Ferry Rd. to Ridder Rd.	Boones Ferry to SW Ridder Road	2005	yes		0		900	47
ODOT		Canyon Rd.: 110th Ave. to 117th Ave.	110th to 117th	2005	yes		1800		2400	78
ODOT		Farmington Rd.: 172nd Ave. to Murray Blvd.	172nd to Murray	2005	yes		900		1800	201
ODOT		Forest Grove North Arterial: Hwy. 47 (Sunset Dr.) to Quince Rd.	Hwy 47 to Quince	2005	yes		0		1200	192
ODOT	116	Hwy. 217: NB off-ramp at Scholls Ferry Rd.	Hwy 217 NB off-ramp at Scholls	2005	yes	2 (1W)	1400	3	1600	4041
ODOT	113	Hwy. 217: U.S. 26 (Sunset Hwy.) to Canyon Rd.	Sunset to TV Hwy. NB (Canyon)	2005	yes	3 (1W)	5500	3 + aux	7200	258
ODOT		Hwy. 217: U.S. 26 (Sunset Hwy.) to Canyon Rd.	Hwy 26 to Canyon	2005	yes		5500	NB	7200	4174
ODOT		Hwy. 89E (McLoughlin Blvd.): Clatsop St. to Hwy. 224	Clatsop to Hwy 224	2005	yes		1800		3600	128
ODOT	140	Hwy. 99W (Pacific Hwy.): I-5 to Durham Rd.	I-5 to Durham Road	2005	yes				+ 50	4042
ODOT		I-5/Stafford Rd. Interchange		2005	yes		-		-	41
ODOT	7	I-5/Wilsonville Interchange	Wilsonville Interchange (Unit 2)	2005	yes		900		1800/2200	199
ODOT	7	I-5/Wilsonville Rd. Interchange	Wilsonville Interchange (Unit 2)	2005	yes		900		1800/2200	202
ODOT	9	I-5: Hwy. 217/Kruse Way Interchange Unit 1	At Hwy 217 (Unit 1)	2005	yes	varies		varies	+ 1000	807
ODOT		I-5: Multnomah Blvd. to Terwilliger Blvd.	Multnomah to Terwilliger	2005	yes		-		-	144
ODOT		I-84: 181st Ave. to 223rd Ave.	181st to 223rd	2005	yes		3700		6000	372
ODOT		Old Scholls Ferry Rd.: New Scholls Ferry Rd. to 175th Ave.	New Scholls to 175th	2005	yes		700		1200	804
ODOT		Ramp Metering I-205 (2005)	East Portland	2005	yes					4144
ODOT		Ramp Metering I-405 (2005)	Central City	2005	yes					4143
ODOT		Ramp Metering I-5: Metro Area (2005)	Metro area	2005	yes					4148
ODOT		Ramp Metering I-84 (2005)	East Portland	2005	yes					4147
ODOT		Tacoma St.: 17th Ave. to 32nd Ave.	17th to 32nd	2005	yes		700		900	42
ODOT		Tualatin Valley Hwy.: Shute Park to 21st Ave.	Shute Park to 21st (Hillsboro)	2005	yes		2100		2200	77
ODOT		U.S. 26 (Sunset Hwy.): Cedar Hills Blvd. Interchange to 78th Ave.	Cedar Hills Interchange to 76th	2005	yes		-		-	28
ODOT		U.S. 26 (Sunset Hwy.): Ramp Metering: Jefferson St. to Cornelius Pass Rd. (PM)	Jefferson to Cornelius Pass Road	2005	yes					4142
ODOT	50	U.S. 26 (Sunset Hwy.): Camelot Ct. to Sylvan Interchange	Camelot to Sylvan (Phase 3)	2005	yes	EB/WB	6600/6000	EB/WB00+cd/4400+		149
ODOT		U.S. 26 (Sunset Hwy.): Zoo Interchange to Scholls Ferry Rd.	Zoo to Scholls	2005	yes		6000	WB	7000	150
ODOT		U.S. 26 (Sunset Hwy.): Zoo Interchange to Vista Ridge Tunnel	Zoo Interchange to Vista Ridge Tunnel	2005	yes		-		-	148
ODOT		Barnes Rd.: Hwy. 217 to Cedar Hills Blvd.	Hwy 217 to Cedar Hills	2015	yes	2	1200	3	1800	37
ODOT	59	Columbia Blvd. (U.S. 30 Bypass): Killingsworth St. at Columbia Blvd.	Killingsworth at Columbia	2015	yes				+ 200	4050
ODOT	114	Hwy. 217: Canyon Rd. to 72nd Ave.	TV Hwy to 72nd Ave Interchange	2015	yes	2 (1W)	4500	3 + aux	6000/7000	152
ODOT	37	I-205/Hwy. 224 Interchange	Clackamas (Sunrise) Interchange	2015	yes		-		-	164
ODOT	38	I-205: Powell Blvd. to Foster Rd.	Powell to Foster	2015	yes	3	8600	3 + aux	7600	4093
ODOT	8	I-5 / I-205 Interchange	Northbound I-205 exit	2015	yes	1 (1W)	2200	2 (1W)	3700	4035
ODOT	18	I-5: Greeley Ave. Ramps to N. Banfield Int.	Greeley to N. Banfield	2015	yes		varies		varies	143
ODOT	9	I-5: Hwy. 217/Kruse Way Interchange	At Hwy 217 (Unit 2)	2015	yes	varies		varies	+ 1000	55
ODOT	9	I-5: Hwy. 217/Kruse Way Interchange	At Hwy 217 (Unit 2)	2015	yes	varies		varies	+ 1000	65
ODOT	28	I-84: Troutdale Interchange to Jordan Interchange	Troutdale intchg-Jordan intchg	2015	yes	2 (1W)		2 + aux	+ 1000	4049
ODOT		I-5: Hwy. 217, Kruse Way Interchange Units 2 & 3		2015	yes		varies		varies	5048
ODOT	1	Mount Hood Parkway: I-84 to Hwy. 26	I-84 to US 26	2015	yes	0	0	4	4000	34
ODOT	69	Tualatin Valley Hwy.: 209th Ave. to Brookwood Ave.	209th to Brookwood	2015	yes		2100		2150	120
ODOT	47	U.S. 26 (Sunset Hwy.): Cornell Rd. to Bethany Blvd.	Cornell to Bethany	2015	yes				+ 50	4087
ODOT	49	U.S. 26 (Sunset Hwy.): Camelot Ct. to Hwy. 217	Highway 217 to Camelot	2015	yes	2 (EB)	4100	3(EB)	6800	154
ODOT	48	U.S. 26 (Sunset Hwy.): Hwy. 217 to Murray Rd.	Murray Road to Hwy 217	2015	yes	2	4500/4400	3 (1W)	8000/7000	155
ODOT/Clack	90	Hwy. 43 (Willamette Dr.): Jolie Pointe Rd.	Jolie Point Traffic Signal	2005	yes		1200		1250	73

APPENDIX 3: FY 2000 MTIP Conformity Determination Network

Jurisdiction	RTP		Project Location	Network Yr Modeled	Able to Model	Existing		Proposed		Atlas #
	No.	Project Name				No.	Capacity	No.	Capacity	
ODOT/Clack	81	Hwy. 43 (Riverside Dr.): Rivardale Rd. to Briarwood Rd.	Rivardale to Briarwood	2005	yes	3/5	1200/1800	3/5	1250/1850	4132
ODOT/Clack	83	Hwy. 43 (State St.): Terwilliger Blvd. Intersection	Terwilliger Intersection	2005	yes	2	1200	3	1300	4039
ODOT/Clack	85	Hwy. 43 (State St./Pacific Hwy.): McVey Ave.	McVey/Green Street Intersection	2005	yes	NB/SB	1200/1800	NB/SB	1300/1850	4048
ODOT/Clack	86	Hwy. 43 (Willamette Dr.): A St. Realignment	West 'A' Street Realignment - 50% share	2005	yes	n/a		n/a		4053
ODOT/Clack	82	Hwy. 43 (Willamette Dr.): Cedaroak Dr. to Hidden Springs Rd.	Cedar Oak to Hidden Spring	2015	yes		1200	1250	+ 50	4038
ODOT/Clack	88	Hwy. 43 (Willamette Dr.): Falling St. Intersection	Falling Street	2015	yes				+ 50	4051
ODOT/Multnom	2	Orient Dr./257th Ave. (Kane Rd.): Palmquist Rd./Orient Dr.	Palmquist/Orient Intersection realignment	2005	yes				no cap change	4034
ODOT/Wash	78	Farmington Rd.: 209th Ave. to 172nd Ave.	209th Ave to 172nd Ave, 185th-172nd	2005	yes	2	900	3	1400/1800	200
ODOT/Wash	77	Beaverton-Hillsdale Hwy.: Scholls Ferry Rd./Oleson Rd.	Scholls Ferry/Oleson	2015	yes		500		550	4052
ODOT/Wash	71	Tualatin Valley Hwy.: 209th Ave. to 218th Ave.	209th/218th	2015	yes	0	0	3	900	4086
Port		Airport Way Eastbound: Portland International Airport to I - 205 (Phase 1)	PDX to I-205 Phase 1	2015	yes	2400	3	3000	1999	4055
Port		Airport Way Westbound: Portland International Airport to I - 205 (Phase 2)	PDX to I-205 Phase 2	2015	yes		2400		3000	4058
Port		Alderwood Ext.: Alderwood Rd. to Clark Rd.	Alderwood Street to Clark Road	2015	yes	0	3	900	1999	4058
Port		Going St. Rail Crossing	Going Street Rail Crossing	2015	yes		1800		2100	4059
Portland		10th Ave.: Lovejoy St. to Hoyt St.	NW 10th Ave. viaduct form Hoyt St. to Lovejoy	2005	yes					4127
Portland		148th Ave.: Marine Dr. to Sandy Blvd.	Marine Dr to Sandy	2005	yes	2	700	3	900	4043
Portland		15th Ave./16th Ave. Decouple: Lloyd Blvd. (13th Ave.) to Weidler St.	15th Ave./16th Ave. Decouple: Lloyd Blvd. (13th Ave.) to Tillmook St.	2005	yes					186
Portland		Columbia Blvd./Burgard St.: Intersection Improvement		2005	yes					4189
Portland	60	Columbia/Lombard: 42nd Ave. to 47th Ave. Connection	42nd Ave and 60th Ave connections"	2005	yes	2	700	3	900	4046
Portland		Convention Center Area Improvements		2005	yes		varies		varies	99
Portland		Hawthorne Bridge: Front Ave. SB on-ramp	Hawthorne Bridge on-ramp from southbound Front Ave.	2005	yes					4131
Portland		Hawthorne Bridge: Willamette River to Grand Ave.	Eastside Hawthorne Bridge between between existing p	2005	yes					4130
Portland		Lovejoy St. Viaduct: Broadway Bridge to 14th Ave.	Lovejoy from Broadway Bridge to Nw 14th Ave.	2005	yes					4128
Portland		Moody St./Harrison St. Connector	New facility between Moody St. and Harrison St.	2005	yes	0	varies	4	900	173
Portland	26	River District/Lovejoy St. Ramp: 10th Ave. to 14th Ave.	Broadway Br to NW 14th	2005	yes	4	1400	5	1600	4054
Portland	42	17th Ave.- Milwaukie Ave. Connector	S. McLoughlin/17th-Milwaukie	2015	yes	0	0	2	700	4084
Portland	24	Broadway St./Weidler St. Corridor Realignment	I-5 to NE 28th	2015	yes	varies		varies		4044
Portland	19	Foster Rd.: 136th Ave. to the Portland city limits	136th to City Limits	2015	yes	2	900	3	1100	23
Portland	36	Garden Home Rd.: Multnomah Blvd.	Garden Home at Multnomah	2015	yes	2	700	3	900	4047
Portland	30	North Macadam Area Access	SW Macadam, River, Carruthers, Bancroft" (site is bou	2015	yes	0	0	2	700	171
Portland		NW 23rd Ave./Burnside Improvement		2015	yes		varies		700/1400	172
Portland		River District Access (Northwest Triangle)	Northwest Triangle	2015	yes		varies		varies	165
Portland	32	Water Ave. Extension: OMSI to Division Pl.	SE Division Place to OMSI	2015	yes	0	0	2	700	166
Portland		Columbia Blvd.: Alderwood Rd.		2015	yes					4170
Tri-Met		Baseline Rd. : 107th Ave. to 177th Ave.		2005	yes					68
Tri-Met		Westside LRT		2005	yes					99998
Tri-Met		Westside LRT (1997)		2005	yes					99995
Washington	3	112th Ave.: Cedar Hills Blvd. Interchange to Cornell Rd.	Cedar Hills Intrchg to Cornell	2005	yes	0	0	3	1200	813
Washington	4	143rd Ave.: West Union Rd. to Kaiser Rd.	West Union to Kaiser	2005	yes	0	0	3	900	812
Washington		170th Ave./173rd Ave.: Baseline Rd. to Walker Rd.	Baseline to Walker Rd	2005	yes		500/700		900	193
Washington	75	170th Ave.: Rigert Rd. to Alexander St.	Rigert to Alexander	2005	yes	2	700	3/5	900/1800	54
Washington	30	219th Ave.: Tualatin Valley Hwy. to Baseline Rd.	TV Highway to Baseline	2005	yes	2	900	3	1200	56
Washington		229th Ave./231st Ave.: Evergreen Rd. to Cornell Rd.	Evergreen to Cornell	2005	yes		700/900		1200	57
Washington		28th Ave. between E. Main St. and Grant St.	28th Avenue between E. Main and Grant	2005	yes	2		3		5278
Washington		53rd: Etam Young Pkwy to Baseline	Widen to 3 lanes	2005	yes	2	700	3	900	
Washington		65th Ave./Sagert St. Intersection Improvement	65th Ave. and Sagert St. Intersection	2005	Yes	2		3		5271
Washington		Allen Blvd.: Western Ave.	Allen/Western intersection	2005	yes	EB	1600	EB	1800	4113
Washington		Amberglen Pkwy.: Quatama Rd./206th Ave. to Stuckl Blvd.	corner of Quatama/206th to Stuckl	2005	yes		0		900	821
Washington		Bames Extension: Hwy. 217 to Cedar Hills 1995		2005	yes	1-way	0/2800	2-way	1200	4100
Washington		Bames Rd. Extension: 117th Ave. to future 119th Ave.	117th to Future 119th	2005	yes		0	4	1200	64
Washington	17	Bames Rd.: Saltzman Rd. at Cornell Rd. to future 119th Ave.	Saltzman @ Cornell to Future 119th	2005	yes			5	1800	4068
Washington	22	Baseline Rd.: 177th Ave. to 231st Ave.	177th to 231st	2005	yes	2	900	3	1200	105
Washington		Baseline Rd.: Brookwood Ave. to 231st Ave.	Baseline Rd. to 231st	2005	yes	2	900	3	1200	69
Washington	29	Beef Bend Rd. Extension: Scholls Ferry Rd. to Hwy. 99W	Scholls Ferry to 99W	2005	yes	2	500/700/900	2	900	71

APPENDIX 3: FY 2000 MTIP Conformity Determination Network

Jurisdiction	RTP		Project Location	Network Yr	Able	Existing		Proposed		Atlas #
	No.	Project Name		Modeled	to Model	No.	Capacity	No.	Capacity	
Washington		Beef Bend Rd.: King Arthur Rd. to 131st Ave.	King Arthur to 131st	2005	yes		500		900	167
Washington		Bethany Blvd. Extension.: West Union Rd. to Kaiser Rd.	West Union to Kaiser	2005	yes	0	0	3	900	809
Washington		Bonita Rd.: 72nd Ave. to Fanno Creek Bridge	72nd to Fanno Creek Bridge	2005	yes	2	700	3	900	4116
Washington		Boones Ferry Rd.: Alsea Dr./Blake St.	at Alsea/Blake	2005	yes	2	900	3	1100	4111
Washington	18	Brookwood Ave.: Hillsboro Airport to Baseline Rd.	Airport to Baseline	2005	yes	0/3	0/1200	3/5	900/1800	78
Washington		Butler Rd.: Shute Rd. to 231st Ave.	Butler Rd. from Shute Rd. to west of 229th Ave.	2005	yes	0		3		5277
Washington		Cedar Hills Blvd: Park Way	add turn lanes on Cedar Hills approaches	2005	yes		1600		1800	4114
Washington		Cornell Rd.: 158th Ave. to Bethany Blvd.	158th to Bethany Blvd	2005	yes		1200		2100	114
Washington		Cornell Rd.: 158th Ave. to Murray Blvd.	158th to Murray	2005	yes	2	900	3	1200	81
Washington		Cornell Rd.: Cornelius Pass Rd. to John Olsen Ave.	Cornelius Pass to John Olsen	2005	yes		700		2100	83
Washington		Cornell Rd.: John Olsen Ave. to 185th Ave.	John Olsen to 185th	2005	yes		900		2100	203
Washington	37	Cornell Rd.: Murray Blvd. to Saltzman Rd.	Murray to Saltzman	2005	yes	2	900	3	1200	4073
Washington		Davis Rd.: Murray Blvd. to 170th Ave.	Murray to 170th	2005	yes		700		900	84
Washington		Durham Rd.: Hall Blvd. to Boones Ferry Rd.	Hall Blvd. to Boones Ferry	2005	yes	2	700	3	900	88
Washington		Evergreen Pkwy. Extension: Cornelius Pass Rd. to Shute Rd.	Cornelius Pass to Shute Road	2005	yes	0	0	5	1800	822
Washington	79	Evergreen Rd.: 25th Ave. to Glencoe Rd.	25th Ave. to Glencoe Rd.	2005	yes	2	900	3	1200	4078
Washington		Evergreen Rd.: Shute Rd. to Dawson Creek Dr.	Evergreen Rd. from Shute Rd. to Dawson Creek Drive	2005	yes	2		5		5276
Washington	51	Greenburg Rd.: Shady Ln. to Locust St.	Shady Lane to Locust	2005	yes	3	900	5	1800	97
Washington	41	Greenway Dr.: Hall Blvd.	Greenway/Hall intersection	2005	yes	NB	900	NB	1000	98
Washington		Hart Rd.: Murray Blvd. to 185th Ave.	Murray to 185th	2005	yes		700		900	101
Washington	85	Hwy. 47 (Sunset Dr.): University Ave. to Beal Rd.	University to Beal	2005	yes	2	700	3	900	127
Washington		Ibach Ct.: Boones Ferry Rd. to Grahams Ferry Rd.	Boones Ferry Rd - Graham Ferry Rd	2005	yes	2	700	3	900	4105
Washington		Laidlaw Rd. Extension: Kaiser Rd. to 168th Ave.	west from Kaiser Rd to 168th	2005	yes		0		900	811
Washington		Lombard Ave.: Broadway St. to Canyon Rd.	Broadway to Canyon	2005	yes	0	0	3	700	4118
Washington		Lombard Ave.: Broadway St. to Farmington Rd.	Broadway to Farmington Rd	2005	yes		700		900	104
Washington		Lombard Ave.: Canyon Rd. to Center St.	Canyon to Center Street	2005	yes	0	0	3	900	103
Washington		Main St.: 10th Ave. to Brookwood Ave.	10th to Brookwood	2005	yes	2	700	3	1200	89
Washington	78	Martin Rd. / Cornelius- Schefflin Rd. Realignment	realignment	2005	yes	2	700	2	800	4102
Washington	82	Millikan Way Extension: Hocken Ave. to Cedar Hills Blvd.	Cedar Hills to Hocken	2005	yes	0	0	3	900	94
Washington	26	Murray Blvd.: Science Park Dr. to Cornell Rd.	Science Park Drive to Cornell	2005	yes	3	900	5	2100	108
Washington	93	Murray Blvd.: TV Hwy. to Allen Blvd.		2005	Yes	2.50	2400.00	2.50	2450	109
Washington		Nyberg Rd. Ext.: 65th Ave. to 50th Ave.	65th to 50th	2005	yes		0		700	4115
Washington		Oregon St.: Tualatin- Sherwood Rd. to Murdock Rd.	Tualatin- Sherwood to Murdock	2005	yes	2	900	3	1000	4120
Washington		Sexton Mountain Dr.: 155th Ave. to Murray Blvd.	155th to Murray	2005	yes		0		900	116
Washington		Springville Rd.: 185th Ave. to Portland Community College	185th to PCC access	2005	yes		500		700	814
Washington		Taylor's Ferry Rd.: Oleson Rd. to Washington Dr.	Oleson to Washington Drive	2005	yes		0		900	117
Washington	98	Tualatin Rd.: Boones Ferry Rd. to 115th Ave.	Tualatin Rd.: and Boones Ferry Rd. to 115th Ave.	2005	yes		700		900	189
Washington		Tualatin Rd.: Railroad tracks to Boones Ferry Rd.	RR to Boones	2005	yes	2	500	3	700	4104
Washington		Walker Rd.: Stucki Rd./185th Ave. to Cornell Rd.	Stucki Ave./185th Ave. to Cornell	2005	yes		0		1800	4125
Washington		Walnut St.: 121st Ave. to 135th Ave.	121st to 135th	2005	yes	2	500	3	700	4119
Washington	5	124th Ave.: Hwy. 99W (Pacific Hwy.) to Tualatin- Sherwood Rd.	99W to Tualatin-Sherwood	2015	yes	0	0	3	900	188
Washington	38	158th Ave.: Jenkins Rd. to Baseline Rd.	Jenkins to Baseline	2015	yes	3	900	5	1800	920
Washington	83	170th Ave.: Alexander Rd. to Baseline Rd.	Alexander to Baseline	2015	yes	2	700	3	900	4075
Washington	73	185th Ave.: Tualatin Valley Hwy. to Farmington Rd.	T.V. Hwy. to Farmington	2015	yes	2	900	3	1200	4077
Washington	105	185th Ave.: West Union Rd. to Springville Rd.	West Union to Springville	2015	yes	2	700	3	900	4103
Washington	16	216th Ave.: Baseline Rd. to Cornell Rd.	Baseline to Cornell	2015	yes	2	900	5	2100	4067
Washington	40	Allen Blvd.: Hwy. 217 to Western Ave.	217 to Western	2015	yes	4	1600	5	1800	59
Washington		Allen Blvd.: Murray Blvd. to Menlo Dr.		2015	yes					4101
Washington	19	Barnes Rd.: Miller Rd. to Leahy Rd.	Miller to Leahy	2015	yes	2	900	5	1800	86
Washington	15	Barnes Rd.: Miller Rd. to the Multnomah County line	Miller to Mult. Co. Line	2015	yes	2	900	5	1800	4074
Washington		Barnes Rd.: Suntek to Miller Rd.	Suntek (near St Vincents) to Miller	2015	yes		1800/2100		+ 50	4107
Washington	24	Baseline Rd.: Lisa Dr. to 218th Ave.	Lisa to 218th	2015	yes	2	900	5	1800	4071
Washington		Beef Bend Rd.: 131st Ave. to 150th Ave.	131st to 150th	2015	yes		500		900	190
Washington	34	Bethany Blvd.: Bronson Rd. to West Union Rd.	Bronson to W. Union	2015	yes	2		5	1800	4072
Washington	9	Cornelius Pass Rd.: U.S. 26 (Sunset Hwy.) to West Union Rd.	Sunset Hwy. to West Union	2015	yes	2	00/1200/150	5	2400	80
Washington	8	Cornell Rd.: 179th Ave. to Bethany Blvd.	179th to Bethany	2015	yes	3	900	5	1800	82



APPENDIX 3: FY 2000 MTIP Conformity Determination Network

Jurisdiction	RTP		Project Location	Network Yr	Able	Existing		Proposed		Atlas #
	No.	Project Name		Modeled	to Model	No.	Capacity	No.	Capacity	
Washington	12	Cornell Rd.: 185th Ave. to Shute Rd.	185th to Shute	2015	yes	5	2100	7	2900	4086
Washington	11	Cornell Rd.: Arrington Rd. to Baseline/Main St.	Arrington to Baseline/Main	2015	yes	2	1400	5	1800	4065
Washington	20	Cornell Rd.: Saltzman Rd. to the Multnomah County line	Saltzman to Mult. Co. Line	2015	yes	2	900	3	1200	4069
Washington	25	Cornell Rd.: U.S. 26 (Sunset Hwy.) to Saltzman Rd.	Hwy. 26 to Saltzman	2015	yes	2	900	5	1800	4070
Washington	48	E/W Arterial: 117th Ave. to 110th Ave.	117th to 110th	2015	yes	0	0	5	1800	91
Washington	60	E/W Arterial: Cedar Hills Blvd. to Watson Ave. /Hall Blvd.	Cedar Hills to Watson/Hall	2015	yes	0	0	5	1800	92
Washington	50	E/W Arterial: Hall Blvd. to 117th Ave.	Hall to 117th	2015	yes	0	0	5	1800	93
Washington	52	E/W Arterial: Hocken Ave. to Murray Blvd.	Hocken to Murray	2015	yes	2	700	5	1800	95
Washington		E/W Connector between 231st Ave., Cornelius Pass Rd., Cornell Rd. and Baseline	Between 231st Ave and Cornelius Pass Rd.	2015	yes	0		3		5279
Washington	92	Evergreen Rd.: Shute Rd. to 25th Ave.	Shute to 25th	2015	yes	2	900	3	1200	969
Washington	80	Glencoe Rd. (1st Ave.): Lincoln Rd. to Evergreen Rd.	Lincoln to Evergreen	2015	yes	2	900	3	1100	4079
Washington	66	Jenkins Rd.: Cedar Hills Blvd. to Murray Blvd.	Cedar Hills to Murray	2015	yes	2	700	3	900	4078
Washington	21	Jenkins Rd.: Murray Blvd. to 158th Ave.	Murray to 158th	2015	yes	3	700	5	1800	102
Washington		Murray Blvd.: Farmington Rd. to Millikan Blvd.	Farmington to Millikan	2015	yes		2400		+ 50	4112
Washington		Murray Blvd.: U.S. 26 (Sunset Hwy.) to Cornell Rd.	Hwy 26 to Cornell	2015	yes		2100		+ 50	4108
Washington		Nora Rd.: 155th Ave. to Weir Rd.	155th to Weir	2015	yes		500		700	111
Washington	7	Old Scholls Ferry Rd.: Murray Blvd. to Beef Bend Rd.	Murray to Beef Bend	2015	yes	2	900/1800	5	1800	113
Washington		Scholla Ferry Rd.: Nimbus Ave. to Hwy. 217	Nimbus to Highway 217	2015	yes		2700		+ 50	4106
Washington		Traffic Signal Coordination, Phase 2	Boones Ferry Rd./Tualatin-sherwood Rd & Tualatin-She	2015	yes		=R; 6=Kmart		7/7	5272
Washington		Tualatin Rd. Realignment: Hwy. 99W and 124th Ave.	hwy 99W (Pacific Hwy) and Tualatin Rd.	2015	yes		Hwy 99W=5; 124th Ave.=5; (new)Tualati			5269
Washington	35	Walker Rd.: Murray Blvd. to 185th Ave.	Murray to 185th	2015	yes	2	800	5	1800	815
Washington	33	Walker Rd.: Stucki to 185th	Stucki to 185th	2015	yes	2	800	5	1800	121
Washington	102	Walker Rd.: Westfield Ave. to Murray Blvd.	Westfield to Murray	2015	yes	2	800	3	900	195
WBL1		Cornell Rd.: Trail Ave. / Saltzman	ROW for boulevard design	2005	yes		1200		1000	
MBL1		Division St.: Watulla / Kelly	Boulevard Design	2005	yes		1800		1600	
CB12		Fuller Rd.: Harmony / King	widen Fuller to 3 lanes to Monroe; ped access only to K	2005	yes		700		900	
WB12		Hall Blvd: 12th / Allen	increase capacity on Hall approaches to Allen	2005	yes		1400/1800		1500/1900	
WBL6		Hall Blvd: Cedar Hills / Hocken	PE only - extend Hall as 3 lanes	2005	yes				900	
CBL1		Harmony Rd.: 82nd / Fuller	Boulevard Design	2005	yes		1200		1000	
CM14		Hwy. 213 Interchange: Beaver Creek Rd. - Phase 1	Add dual left turn from EB Beaver Creek to NB 213	2005	yes		900		1200	4040
PF1		Lower Albina Railroad Crossing	Interstate Ave. to Russell St.	2005	yes					4500
WBL2		Main St.: 10th/20th Cornelius	Boulevard Design - Phase 1	2005	yes		1400		1200	
PF2		Marine Dr.: I- 5 to North Rivergate Section	Rivergate to I-5	2005	yes	2	1200	4	2400	4084
CBL3		McLoughlin: Harrison/SPRR Xing	Boulevard Design	2005	yes		1800		1600	
PBI1		Morrison Bridge Bikelanes	Morrison Bridge between SW Second Ave. and SE Wal	2005	yes	EB	3600	EB	2400	5212
WM5		Murray Blvd.: Millikan Way to Terman Rd.	Murray overcrossing	2005	yes		900		1650	108
PR10		Naito Pkwy: Davis/Market	Boulevard Design	2005	yes		1400/1900		1200/1700	
WM13		SE 10th: E Main/SE Baseline - Hillsboro	PE only - SB right turn lane	2005	yes	SB	2100	SB	2300	
WM19		SW Greenburg Rd: Washington Square / Tiedeman	PE only - widen to 5 lanes / boulevard enhancements	2005	yes		varies		varies	
WM1		Farmington Rd.: Hocken / Murray	PE only - widen to 5 lanes	2015	yes		1400		1800	
CM14		Hwy. 213 Interchange: Beaver Creek Rd. - Phase 2	Beaver Creek Road (diamond Interchg)	2015	yes		1800		2400	4040
WM17		I-5/Nyberg Interchange	PE/ROW - widen onramp & SB off ramp	2015	yes		varies		varies	
MM3		Railroad Bridge Overcrossing: over 223rd Ave., near I-84	(PE ROW) Over 223rd Ave near I-84	2015	Yes	2	700	3	900	5058
WBL2		Main St.: 10th/20th Cornelius	Boulevard Design - Phase 2 (widen to 3 lanes)	2021	yes		1200		1900	
MM1		207th Connector: HalsEy/Glisan			no					
PBR2b		Burnside Electrical			no					
PP2		Capitol Hwy: Bertha/Bvtn Hisd.			no					
WP7		Cedar Hills: Walker/Butner			no					
CM7		Clack Co ITS/ATMS			no					
CB17		Clack Reg Ctr. Trail			no					
RP1g1		Core Reg. Planning Program			no					
WBI5		Cornell Rd. Elam Young/Ray			no					
PBI8a		E. Bank Trail -OMSI/Springwater			no					
PBI8b		E. Bank Trail -Phase2 (ROW Only)			no					
TDM3		ECO Information Clearinghouse			no					
WBI10		Fanno Creek Trail Phase 2 (PE/RW?)			no					

APPENDIX 3: FY 2000 MTIP Conformity Determination Network

Jurisdiction	RTP		Project Location	Network Yr	Able	Existing		Proposed		Atlas #
	No.	Project Name		Modeled	to Model	No.	Capacity	No.	Capacity	
	WBI1	Fanno Creek: Allen/Derney			no					
	PBI9	Græeley/Interstate			no					
	MM7	Gresham Mult Co. ITS			no					
	MBi1	Gresham/Fairview Trail			no					
	CM2	Harmony/Linwood/Railroad Ave. PE			no					
	PBL1	Hawthorne: 20th/55th			no					
	RP1g8	I-5 Trade Corridor Study			no					
	CR2	Johnson Crk. Blvd.:36th/45th			no					
	RTOD1	Metro TOD Program			no					
	PM6	MLK/Interstate ITS			no					
	PBr2a	Morrison Electrical			no					
	TE3	NE 47th Environmental Restoration			no					
	RP1g5	OPB Pilot			no					
	CBi3	Phillip Creek Greenway Trail			no					
	TE1	Pioneer Courthouse			no					
	TDM2	Portland Area Telecommuting			no					
	PM1	Portland Arterial/Frwy ITS			no					
	TE2	Portland Bike Signage			no					
	PP5	Red Electric Line: Will Prk./Oleson			no					
	RT1r	Reg. Contribution for Bus Purchase			no					
	TDM4	Region 2040 Initiatives			no					
	RP1g3	Regional Freight Program Analysis			no					
	TDM1	Regional TDM Program			no					
	CP1	Scott Creek Lane Ped Path			no					
	PM10	SE Foster Rd./Kelly Creek			no					
	WP4	Sentinel Plaza:Comell/Cedar Hills/113th			no					
	Rtr2	Service Increase for Reg/T.C. TCL			no					
	TDM8	SMART TDM Program			no					
	CM5	Sunnyside Rd./Mt. Scott Creek			no					
	WP5	SW 170th: Merlo/Elmonica LRT Station			no					
	TDM5	TMA Assistance Program			no					
	CBi9	Town Cntr. Park: Bike/Ped Connection			no					
	PBL3	W. Burnside: Brdg/NW 23rd			no					
	WM4	Wash. Co. ATMS			no					
	WTr2	Wash. Co. Bus Stop Enhancement Program			no					
	WTR1	Wash. Co. Commuter Rail			no					
	CTr2	Will Shoreline Trestle/Track Repair			no					
	CBL2	Willamette Dr. - A St. / McKillican	PE only - widen, but add boulevard design		no					
	CBi10	Wilsonville: Boeckman/Town Center Loop			no					

Appendix 4:  
Response to Interagency Consultation Comments  
on the Draft Qualitative Analysis

The Draft Qualitative Determination was submitted for review and approval by TPAC, which is identified in the State Rule as the Standing Interagency Consultative Committee. The Department of Environmental Quality submitted the following comment by e-mail preceding the September TPAC meeting and also submitted a hard copy of the comments at the meeting. Finally, during the discussion of these issues, clarification was requested of the discussion contained in the Determination regarding allocation of transit resources in the out-years of the analysis period. The following response is proposed for inclusion as Appendix 4 of the Determination.

As an overall comment, [DEQ] would like to say that in the future we hope we can see the actual emissions numbers before being asked to take action on a conformity determination. We understand the level of effort and timing constraints but would expect that Metro can develop a workplan that allows ample time to get this work done before TPAC is asked to approve. Similarly, we hope that Metro will get on a schedule to actually update the Regional Transportation Plan every three years. It appears that the one that is still being worked off of is from 1995.

*RESPONSE: Metro believes that submitting the Qualitative Analysis for review and approval by TPAC, in advance of initiating the Quantitative Analysis is appropriate and necessary to assure integrity of the comment process. The Qualitative Analysis describes Metro's treatment of the critical variables of the region's motor vehicle and transit systems that determine the result of the Quantitative modeling process. If these factors are not declared in advance of the modeling process, there is no meaningful opportunity to question or modify key factors that dictate the emissions calculation. Consequently, if valid objections are raised regarding the underpinning of the model results, the only recourse is to abandon the results and repeat a labor- and computer processing-intensive modeling process.*

*The Quantitative Analysis results either demonstrate conformity with emissions budgets or they don't. There is no comment appropriate to either outcome. Therefore, absence of the results while considering the accuracy and appropriateness of Metro's declared model assumptions does no harm to the comment process. On the other hand, if there is a serious error to the assumptions used in the model, this information is needed before the quantitative analysis is conducted.*

*With this said, Metro staff will explore methods to better coordinate the timing of conformity adoption with release of quantitative information.*

Specific comments related to the conformity determination:

- 1) Top of page 3: sentence indicates that Metro does not keep records of updates to locally funded projects that are included in the model. Some process should be developed to document these updates.

*RESPONSE: The changes referred to in that sentence reflect changes to the existing local street system, typically in association with developer funded street improvements. The professional judgment of Metro modeling staff, guided by evaluation of whether any such changes effect components of the regionally significant system defined in the 1995 RTP, determines whether such system revisions are treated as either routine and unrecorded or as revisions meriting inclusion in the Regional Street Atlas. A system for recording the higher order revisions does exist, which is not to say that all such changes are necessarily regionally significant. Additionally, Appendix 3 declares Metro's characterization, in the regional model, of the current and future condition of regional system links that are proposed for capacity expansion.*

- 2) Page 4 states that Tri-Met is responsible for implementing the Employee Commute Options program. This is NOT the case. DEQ is responsible for implementing ECO. The rule requires employers to submit trip reduction plans to DEQ for review and approval. DEQ

offers technical assistance and outreach to employers subject to the rule. DEQ also has penalty authority for employers that fail to comply. DEQ has spent considerable effort explaining the differences between DEQ and Tri-Met's role, if this continues to be unclear please let us know as soon as possible.

*RESPONSE: Agreed. This text will be revised in the final Determination document.*

- 3) (Page 9 and page 17) DEQ is not convinced that the current level of commitment to TMAs justifies increasing the parking costs beginning and 2005 and escalating all the way to 2020 in all Tier 1 and 2 Regional Centers and Station Areas. TPAC and JPACT need to have a broader discussion of whether the region is committed to ongoing funding for TMAs. Since the current funding commitment is for start up, without the long term commitment from TPAC and JPACT, this assumption may not be justified.

*RESPONSE: This issue was discussed at September TPAC. Metro continues to believe the factors described in Appendix 2, affecting: 1) Intersection Density; 2) Parking Costs; and 3) Transit Pass Factors, are conservative and appropriate. The changes described are less aggressive than the Strategic System factors used in the Draft RTP Update. Also, these are factors that will rely far more on the pace of projected development than regional support of TMAs.*

*Regarding the region's commitment to TMAs though, this commitment began in 1994 with funding for a regional TMA demonstration program that supplied seed funding for three TMA organizations in urban and suburban locations. These early test bed groups continue to prosper and are now largely self-financing. The current approved regional TMA policies and program anticipates that, at maturity, TMAs will be approximately 70 to 80 percent self financed from member dues, with the balance to be supplied from public sector support mechanisms, such as imposition and revenue sharing of on-street parking charges. Finally, currently allocated regional TMA "startup" funding is to be preceded by a feasibility analysis of TMA viability before additional regional assistance is extended to any individual TMA organization. The feasibility analysis is expected to assure that TMA organizations that receive regional "startup" funds will provide long-term congestion management benefits of the type described in the Determination.*

- 4) (Page 11) Transportation Control Measures - Inspection and Maintenance is not considered a Transportation Control Measure and therefore discussion of it should be removed. The conformity determination also needs to assess what progress is being made to implement the non-funding based TCMs, i.e. 2040 growth concept implementation efforts.

*RESPONSE: The I&M discussion as a TCM will be removed from the final Determination. See Appendix 5 for detailed analysis of the region's progress implementing the growth management TCM. In general, Washington County is on schedule for meeting both housing and employment targets. At present, Clackamas County appear approximately 25 percent short of its employment targets but Regional Center, Town Center and Main Street planning efforts currently in process are expected to increase overall capacities. Preliminary analysis shows that Multnomah County will achieve about 60 percent of its housing allocation and may request an exception for the Metro's Title 1 housing target. The County should meet all of its employment target. Also, work with Gresham to refine targets is on hold and work with Troutdale and Fairview is only just beginning. The City of Portland has completed its analysis and shows that it will meet both its housing and employment targets.*

*Overall, of the region's 27 jurisdictions reporting, 16 anticipate full compliance with regional housing and employment targets, including the City of Portland, Hillsboro, and Washington County, as of the August 1999 deadline. Preliminary calculations for Gresham and Beaverton are showing substantial compliance with the targets, but they have not completed their work.*

*Additionally, the most recent Urban Growth Report update (Metro, September 1999) indicates that the target for residential infill/redevelopment growth absorption is largely on track. Metro has set a growth absorption target of 28.5 percent for infill and redevelopment. The rate in 1997 was 25 percent. Over the next two to five years, the rate is expected to fluctuate between 20 and 30 percent, indicating that this aspect of the growth management concept is on-target.*

*Finally, the Growth report continues to project that the supply of Gross Vacant Buildable Land, accounting for a 38.6 percent reduction for streets, schools, parks, places of worship, fraternal organizations, other utilities and endangered species-related regulatory restrictions, will remain adequate to accommodate anticipated growth through 2017. This projection is supported by many factors, including the fact that average lot size of newly permitted residential development has trended lower in each of the past several years and now stands at 6,200 sq. ft., well within the range anticipated in the 2040 growth plan.*

- 5) (Page 13) Project sponsor satisfaction of hot spot analyses is not relevant to TIP conformity and can be removed.

*RESPONSE: Agreed. The text will be removed from the final Determination.*

- 6) (Page 14) Project disclosure of regionally significant non-FHWA/FTA projects - you might want to add into this section a brief description of efforts made by Metro to achieve disclosure, i.e. "a letter was sent to all local jurisdictions....."

*RESPONSE: The modeled network is the product of very extensive outreach to local jurisdictions conducted over the past three years as part of the RTP Update process. Additionally, local jurisdictions were notified in the Interagency Consultation Subcommittee meeting in Mid-August where these issues were raised. Metro anticipates a more formal notification/solicitation process in years when extensive model refinement associated with an RTP update is not occurring.*

- 7) (Page 20) Discussion related to pedestrian and bicycle projects not being represented in the model and if necessary, off model "credit" could be taken for these projects. It is my understanding that those projects can be (and are) somewhat represented by increasing the pedestrian environment factor (PEF) in the model.

*RESPONSE: The regional model currently encodes demographic factors which allocate total travel demand to various travel modes, including bike and pedestrian modes. Overall improvement of regional bike and pedestrian amenities through time is encompassed within these demographic factors. However, the model does not model specific bike and pedestrian system enhancements. In the event the Quantitative analysis shows regional emissions above target levels, Metro anticipates looking to specific analysis zones targeted for bike and pedestrian improvement in the past several TIP allocations. The objective of this assessment would be to determine whether the "generic" bike and pedestrian factors encoded in these*

*zones merit revision on the basis of specific investment decisions reflected in the TIP allocations.*

***Other TPAC Comments***

During the September TPAC meeting, a question was raised about how Metro has reflected transit funding increases anticipated between 2015 and 2020. Though the road network will remain static during this period (i.e., no amendment of the 2015 RTP horizon year network has been approved to date), transit system capacity is expected to increase approximately 1.5 percent annually during this time. This issue is discussed in the Determination starting at the bottom of page 6. Clarification was requested of precisely how the model will reflect deployment of these resources.

***RESPONSE:*** *The model seeks to match transit service demand with expected service hour capacity. However, especially in out years, demand for service in some corridors may actually exceed identified transit capacity within the corridor, though system-wide, demand is matched to available capacity. This situation is likely to occur in corridors serving Urban Reserve locations in Multnomah, and especially Clackamas County, where five years of urban development will not be matched to any modification of the 1995 RTP road network serving those locations. Consequently, transit system demand in those corridors is likely to exceed modeled service hours in the corridors, but the overall transit system, reflecting five years of additional capacity expansion, will be balanced to total demand. Refinement of the transit network will occur in the next RTP update, and ultimately during service planning conducted by Tri-Met annually.*

**Functional Plan Compliance Status – July 22, 1999 (Does not include Title 3)**

*Functional Plan requirements are listed by title at the end of the table*

Jurisdiction	Extensions	Status of extension work	Potential exception requests	Status of capacity calculation
Beaverton	<ul style="list-style-type: none"> <li>July 1999: Adopt boundaries for regional and town centers and station communities</li> <li>January 2000: Title 2, Title 6, Title 8</li> <li>July 2000: Minimum densities, accessory dwelling policies, main street and corridor boundaries and public facilities plan update</li> <li>October 2000: Planning for Cedar Mills, Bethany and Raleigh Hills</li> </ul>	<ul style="list-style-type: none"> <li>Adopted minimum densities and accessory dwelling policies</li> <li>Design type boundaries will be complete in October 1999.</li> <li>Title 4 will be complete in January 2000.</li> </ul>	<ul style="list-style-type: none"> <li>Employment targets – current estimates show about a 15% deficit overall and about a 25% deficit in mixed-use areas</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary calculation is complete.</li> <li>Housing slightly below targets, but units built between 1994 and 1996 are not included. Calculation will be revised.</li> <li>Employment somewhat below targets (see exceptions column at left)</li> </ul>
Clackamas County	<ul style="list-style-type: none"> <li>December 1999: Title 6, corridor and main street design type planning, final capacity calculation and facilities plan review</li> </ul>	<ul style="list-style-type: none"> <li>Compliance work on schedule</li> </ul>	<ul style="list-style-type: none"> <li>Employment targets – current estimates show about a 25% deficit for the County as a whole</li> </ul>	<ul style="list-style-type: none"> <li>Completed initial calculation – short on dwelling unit &amp; job targets; ongoing planning for mixed use &amp; corridor areas will increase capacities</li> </ul>
Cornelius	<ul style="list-style-type: none"> <li>September 1999: Minimum densities, lot partitioning, accessory dwelling policies, design type boundaries, Titles 2, 4, 5, and 6.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance work is in progress</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary analysis shows that the City will substantially comply with dwelling unit and job targets.</li> </ul>
Durham	<ul style="list-style-type: none"> <li>September 1999: Minimum densities, lot partitioning, accessory dwelling policies, design type boundaries, Titles 2, 4 and 6</li> </ul>	<ul style="list-style-type: none"> <li>Accessory dwelling policies are close to adoption</li> </ul>	<ul style="list-style-type: none"> <li>May request a higher office parking ratio</li> </ul>	<ul style="list-style-type: none"> <li>Calculations show that the City substantially complies with targets</li> </ul>
Fairview	<ul style="list-style-type: none"> <li>April 1999: Establish minimum densities, calculate employment capacity, accessory dwelling policies, Title 2 and Title 4</li> <li>October 1999: design type boundaries, public facilities analysis and Title 6</li> </ul>	<ul style="list-style-type: none"> <li>Work due in April 1999 complete,</li> <li>Work due in October 1999 is on schedule</li> </ul>	<ul style="list-style-type: none"> <li>Had requested an exception for employment targets, no longer necessary</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary housing calculation shows the City being a little short of its target</li> <li>Employment calculation shows that the City will meet jobs target</li> </ul>
<b>Forest Grove</b> <i>Metro Council currently considering time extension requests 6/99</i>	<ul style="list-style-type: none"> <li>September 1999: Analyze recent build densities, assess public facility capacities</li> <li>October 1999: Finalize capacity analysis, design type boundaries</li> <li>December 1999: Minimum densities, Titles 2, 4 and 6</li> </ul>	<ul style="list-style-type: none"> <li>Compliance work is proceeding</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary calculation completed by Metro shows the City significantly short on dwelling units and near its job target.</li> </ul>



Jurisdiction	Extensions	Status of extension work	Potential exception requests	Status of capacity calculation
Gladstone	<ul style="list-style-type: none"> <li>December 1999: Minimum densities, accessory dwelling policies, design type boundaries, capacity analysis, Titles 2, 4 and 6</li> </ul>	<ul style="list-style-type: none"> <li>City is making good progress on Functional Plan compliance work program</li> <li>May request an additional time extension to complete public involvement for town center boundary</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>City expects to meet dwelling unit and job targets</li> </ul>
Gresham	<ul style="list-style-type: none"> <li>July 1999: Design type boundaries, determine built densities, develop a parking data reporting procedure, Title 5 &amp; Title 8 reporting requirements.</li> <li>Aug. 1999: Title 4 and capacity calculation</li> <li>Sept. 1999: Titles 2 &amp; 6 &amp; facilities plan evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Working toward extension deadlines</li> </ul>	<ul style="list-style-type: none"> <li>May request an exception to prohibit partitioning lots smaller than 10,000 square feet</li> </ul>	<ul style="list-style-type: none"> <li>Will complete by August 1999</li> </ul>
Happy Valley <i>Metro Council currently considering time extension requests 6/99</i>	<ul style="list-style-type: none"> <li>December 1999: Minimum densities, design type boundaries, employment capacity calculation, Titles 2 and 6</li> </ul>	<ul style="list-style-type: none"> <li>City intends to meet December timeline</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary analysis is complete it shows that the City exceeds housing targets, meets the mixed use job targets, but falls short of jobs target.</li> </ul>
Hillsboro	<ul style="list-style-type: none"> <li>December 1999: Minimum densities outside station areas, accessory dwelling units, and Title 4 &amp; Title 6</li> </ul>	<ul style="list-style-type: none"> <li>Compliance work is underway</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>Completed – City meets dwelling unit and job targets</li> </ul>
Johnson City	<ul style="list-style-type: none"> <li>None (see exceptions column)</li> </ul>	<ul style="list-style-type: none"> <li>No extensions requested</li> </ul>	<ul style="list-style-type: none"> <li>City has asked for an exception to all Functional Plan requirements due to its small size and status as a single parcel of land fully developed as a mobile home park</li> </ul>	<ul style="list-style-type: none"> <li>Completed by Metro staff. The City will not meet job or housing target. Targets are less than 200 each for dwelling units and jobs. Targets were based on redeveloping all land in the City.</li> </ul>
King City	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No extensions requested</li> </ul>	<ul style="list-style-type: none"> <li>The City has requested an exception to the accessory dwelling unit requirement</li> </ul>	<ul style="list-style-type: none"> <li>City exceeds job target and falls short of housing target by 182 units. Metro analysis shows no vacant land for residential uses.</li> </ul>
Lake Oswego	<ul style="list-style-type: none"> <li>March 1999: Design type boundaries</li> <li>April 1999: Complete Title 4</li> <li>June 1999: Title 6 street design</li> <li>December 1999: Remaining Title 3</li> </ul>	<ul style="list-style-type: none"> <li>Adopted design type boundaries, excluding some parts of transit corridors (is planning to apply for a map amendment)</li> <li>Adopted Title 4 restrictions</li> </ul>	<ul style="list-style-type: none"> <li>Minimum densities</li> </ul>	<ul style="list-style-type: none"> <li>Completed – City meets job target (10,587) and falls 163 units (4%) short of dwelling unit target (4,049 of 4,212); both targets include County portion of City's urban agreement areas.</li> </ul>

Jurisdiction	Extensions	Status of extension work	Potential exception requests	Status of capacity calculation
Maywood Park	December 1999: Design type boundaries and Title 2	<ul style="list-style-type: none"> <li>• Have adopted Title 2 amendments and will likely complete compliance work before December</li> </ul>	<ul style="list-style-type: none"> <li>• None requested</li> </ul>	<ul style="list-style-type: none"> <li>• Completed. The City is short 15 dwelling units but meets jobs target.</li> </ul>
Milwaukie	<ul style="list-style-type: none"> <li>• December 1999: Title 6 cul-de-sac length maximums</li> <li>• February 2000: Boundaries for main street</li> </ul>	<ul style="list-style-type: none"> <li>• Work due in December is on schedule</li> <li>• May request additional time to complete work due in February 2000</li> </ul>	<ul style="list-style-type: none"> <li>• May request an exception for employment capacity targets</li> <li>• May request redesignation of regional center to town center</li> </ul>	<ul style="list-style-type: none"> <li>• Preliminary analysis shows that the City is slightly short on housing and significantly short on employment. Main street planning and other efforts should increase the calculated capacities.</li> </ul>
Multnomah County <i>Metro Council currently considering time extension requests 6/99</i>	<ul style="list-style-type: none"> <li>• March 2000: Titles 1 through 5</li> </ul>	<ul style="list-style-type: none"> <li>• Work with Portland should be complete by December. Work with Gresham is on hold and efforts with Troutdale and Fairview are just beginning.</li> </ul>	<ul style="list-style-type: none"> <li>• Will likely request an exception for Title 1 housing target</li> </ul>	<ul style="list-style-type: none"> <li>• Preliminary analysis shows the County will achieve about 60% of its housing target</li> <li>• County can meet its job target</li> </ul>
Oregon City <i>Metro Council currently considering time extension requests 6/99</i>	<ul style="list-style-type: none"> <li>• October 1999: Title 6</li> <li>• June 2000: Title 2 and Title 4</li> <li>• July 2000: Minimum densities, accessory dwelling policies, design type boundaries, Title 5</li> <li>• September 2000: Finalize capacity calculation</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance work is on schedule</li> </ul>	<ul style="list-style-type: none"> <li>• None requested</li> </ul>	<ul style="list-style-type: none"> <li>• Preliminary analysis completed by Metro shows the City meets about 80% of its housing target and 75% of its job target. The City will refine these estimates</li> </ul>
Portland <i>Metro Council currently considering Title 1 and Title 6 time extension requests 6/99</i>	<ul style="list-style-type: none"> <li>• June 1999: Title 4</li> <li>• December 1999: Design type boundaries, minimum densities, Title 2 and Title 6</li> </ul>	<ul style="list-style-type: none"> <li>• Title 4 complete in April 1999, Title 2 has been reviewed by the Planning Commission and is going to Council.</li> <li>• December work is on schedule</li> </ul>	<ul style="list-style-type: none"> <li>• None requested</li> </ul>	<ul style="list-style-type: none"> <li>• Calculation is complete showing that the City meets both housing and job targets.</li> </ul>
Rivergrove	<ul style="list-style-type: none"> <li>• December 1999: Minimum densities, design type boundaries, Title 2</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance work is on schedule</li> </ul>	<ul style="list-style-type: none"> <li>• None requested</li> </ul>	<ul style="list-style-type: none"> <li>• Preliminary calculation shows that the City exceeds housing target and falls short of job target (total job target is 41).</li> </ul>
Sherwood	<ul style="list-style-type: none"> <li>• April 1999: Titles 2 and 6</li> <li>• July 1999: Title 5</li> <li>• September 1999: Title 4</li> <li>• Sept. – November 1999: Title 1</li> </ul>	<ul style="list-style-type: none"> <li>• Has not completed work on Titles 2 and 6 that was due in April.</li> </ul>	<ul style="list-style-type: none"> <li>• None requested</li> </ul>	<ul style="list-style-type: none"> <li>• Preliminary analysis submitted with compliance report shows the City meeting housing and employment targets. Refinements may lower housing numbers.</li> </ul>

Jurisdiction	Extensions	Status of extension work	Potential exception requests	Status of capacity calculation
Tigard	<ul style="list-style-type: none"> <li>December 1999: Title 6</li> <li>February 2000: Regional center plan, finalize capacity calculation</li> </ul>	<ul style="list-style-type: none"> <li>Compliance work is on schedule</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary calculation shows the City can meet over 90% of its target. The regional center plan is expected to increase this number</li> </ul>
Troutdale	<ul style="list-style-type: none"> <li>May 1999: Minimum densities</li> <li>December 1999: Title 6</li> </ul>	<ul style="list-style-type: none"> <li>Minimum densities due in May not yet adopted</li> </ul>	<ul style="list-style-type: none"> <li>Accessory dwelling units</li> </ul>	<ul style="list-style-type: none"> <li>Completed – City exceeds job target (5,570) and falls 529 units (14%) short of dwelling unit target (3,260 of 3,789)</li> </ul>
Tualatin	<ul style="list-style-type: none"> <li>May 1999: Finalize work on Titles 1, 2, 5 &amp; 6, and calculate employment capacity for mixed-use areas</li> </ul>	<ul style="list-style-type: none"> <li>Employment capacity complete</li> <li>Code changes are drafted and have been reviewed by City Council and planning advisory committee. Need to hold public hearing.</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>The City meets overall and mixed-use job and housing targets</li> </ul>
Washington County	<ul style="list-style-type: none"> <li>October 1999: Titles 1, 2, 6 and 8</li> <li>October 2000: Planning for Cedar Mills, Bethany and Raleigh Hills (Beaverton will be responsible for planning)</li> </ul>	<ul style="list-style-type: none"> <li>Compliance work is on schedule</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>The County expects to meet its targets.</li> </ul>
West Linn	<ul style="list-style-type: none"> <li>December 1999: All compliance work</li> </ul>	<ul style="list-style-type: none"> <li>Working to complete comprehensive plan update as a basis for compliance efforts</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>The City has submitted capacity calculations showing that it can meet housing and job targets</li> </ul>
Wilsonville	<ul style="list-style-type: none"> <li>September 1999: Title 1, except capacity calculation and design type mapping, Title 2, 4, 5 and 8</li> <li>After prison siting: Capacity calculation, design type mapping and Title 6</li> </ul>	<ul style="list-style-type: none"> <li>Compliance work is in progress</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary calculation by Metro shows that the City will be a little short of its job target. The City's ability to meet its housing target will depend upon the outcome of the prison siting issue.</li> </ul>
Wood Village	<ul style="list-style-type: none"> <li>June 1999: Minimum densities, accessory dwelling policies, design type boundaries, Titles 2, 4, 6 and 8.</li> </ul>	<ul style="list-style-type: none"> <li>City Council adopted plan and code amendments for compliance with the functional plan on July 14, 1999.</li> </ul>	<ul style="list-style-type: none"> <li>None requested</li> </ul>	<ul style="list-style-type: none"> <li>Completed, the City exceeds target capacities</li> </ul>

Functional Plan Requirements by Title	
Title 1: Requirements for housing and employment accommodation	Title 5: Requirements for rural reserves and green corridors
Title 2: Regional parking policy	Title 6: Regional accessibility
Title 3: Water quality, flood management conservation	Title 7: Affordable housing
Title 4: Retail in employment and industrial areas	Title 8: Compliance procedures

## STAFF REPORT

### CONSIDERATION OF RESOLUTION NO. 99-2868 FOR THE PURPOSE OF ADOPTING THE PORTLAND AREA AIR QUALITY CONFORMITY DETERMINATION FOR THE FY 2000 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM

---

Date: November 3, 1999

Presented by: Andrew Cotugno

## PROPOSED ACTION

Approval of this resolution would adopt a regional air quality conformity Determination for the FY 2000-2003 Metropolitan Transportation Improvement Program (MTIP), including revision of the alignment, terminus and timing of the Interstate MAX and South Corridor light rail system extension projects.

## BACKGROUND AND ANALYSIS

By Resolution No. 99-2830, Metro approved the FY 2000 MTIP in September of this year. Funding was provided for several projects and project phases whose scope, concept and timing differ significantly from those analyzed in the previous air quality conformity determination approved by FTA/FHWA/EPA in October 1998. None of the projects, though, result from or require amendment of the 1995 *Regional Transportation Plan*; the RTP has not been amended and does not itself require re-determination of conformity.

In addition to the MTIP approval, Metro has also formally approved alteration of the timing, alignment and scope of the South/North light rail project. A North Corridor component, the Interstate MAX project, will hopefully obtain a Full-Funding Grant Agreement by early next year. Funding for the Interstate MAX project is approved in the MTIP. The South Corridor extension has been delayed. These changes to the region's next light rail project trigger the need for a conformity Determination.

The Determination is composed of both a *Qualitative* and *Quantitative* Analysis. Exhibit 1 of the resolution contains the qualitative discussion mandated in the State Rule. The *Quantitative* Analysis consists of determining, through analytic methods, whether the region's auto emissions exceed budgets established in the region's approved maintenance plan. The results of this analysis are included in Exhibit 1.

TW:rmb

C:\Resolutions\1999\99-2868StaffReport.Doc