Road User Fee Task Force

A Summary of the

Preliminary Report to the Oregon Legislative Assembly

On the Possible Alternatives to the Current System of Taxing Highway use Through Motor Vehicle Fuel Taxes

September, 2002

James M. Whitty

Administrator of the
Road User Fee Task Force

Director's Office
Oregon Department of Transportation

355 Capitol St. NE
Salem, Oregon 97301-3872

Tel: (503) 986-4284

Email: Jim.Whitty@odot.state.or.us

Website for Road User Fee Task Force - www.odot.state.or.us/ruftf/

Preliminary Report to Legislative Assembly

A SUMMARY

Background

Charge By Legislature. Recognizing the gas tax is a declining revenue source for Oregon's road system, the 2001 Legislative Assembly passed House Bill 3946, mandating formation of the Road User Fee Task Force with the following statutory mission,

> "To develop a design for revenue collection for Oregon's roads and highways that will replace the current system for revenue collection."

History of Fuel Taxes. Oregon enacted the nation's first fuel tax on gasoline in 1919. The fuel tax quickly became the principal method of financing Oregon's roads. Rampant inflation during the 1970s and early 1980s seriously eroded the buying power of gas tax revenues, motivating the legislature to pass a series of fuel tax increases between 1983 and 1991.

While inflationary pressures have continued to erode the purchasing power of the gas tax, a new problem emerged having an equally negative impact upon available gas tax dollars. Since the 1970s motorists are purchasing ever more fuel efficient vehicles. Gasoline purchases per mile driven have dropped dramatically and, correspondingly, fuel taxes revenues as well.

Importance of Fuel Taxes to Road Finance in Oregon. Fuel tax revenue constitutes the bulk of the total funding available for Oregon roads. Fuel taxes, state and federal, make up approximately 60 to 70 percent of total Oregon road revenue for a given year, depending upon the annual federal contribution. In 2002, fuel taxes comprise 70 percent of the total road budget.

Technological Improvements To Allow Even Greater Fuel Efficiency. New technology will soon greatly improve the average fuel efficiency of the statewide passenger vehicle fleet in Oregon. The highly fuel-efficient hybrid electric vehicle engine will become optional for many standard models by 2006 and the non-gasoline powered fuel cell engine may appear by the end of the decade.

Projection of Fuel Tax Revenues to 2012. Due to fuel efficiency improvements, Oregon fuel tax revenues from the sale of gasoline are likely to level off during the next ten years and then permanently drop.

Proceedings

The Road User Fee Task Force has held seven meetings. Among numerous findings, the task force discovered the following,

- The average passenger vehicle increased fuel efficiency from 11.8 miles per gallon in 1970 to 19.1 miles per gallon in 2000.
- The fuel tax will become an ever-shrinking portion of total road revenues.
- The task force identified numerous technologies that could facilitate application of a mileage-based fee.

The task force made a number of policy choices to develop an alternative to the current revenue system for road funding and analyzed 26 potential revenue mechanisms. The task force recommends any new system be founded upon "user pay" methods directly related to providing road infrastructure and services.

The task force developed four revenue sources for the new revenue system.

1. **Mileage-Based Fee** - A distance-traveled charge imposed according to the amount a vehicle owner/operator uses the road system.

The task force developed numerous scenarios for collection of a mileage-based fee, including payment at gasoline stations, an independent collection center, DMV or as part of statewide spot tolling system.

The task force expressed the following preferences for the design of a mileage-based fee, configured as a vehicle miles traveled fee (VMT fee).

- Private Data Collection and Fee Retrieval through Independent Center
- To Gather Mileage Driven Data, GPS or AVI/odometer Linked Devices
- Data Upload to Center via Radio Frequency
- During Phase In, VMT Fee For New Vehicles with Mandated Technology
- During Phase In, Credit for Gas Tax Paid Against income Taxes
- Gas Tax Continued for Resident Non-VMT Fee Payers and Non-Residents Until Interstate Compact Adopted
- Privacy Protected by Design limitation and Legal Prohibition
- Enforcement by Traffic Fines and Private Collection
- Base Rate Adjustment Only for Variable Pricing in Congested Areas
- Base Rate Designed as Revenue Neutral Except for Recovery of Administrative Costs and Amortized Capital Expenditures

Numerous issues arose that have a great effect upon design of a mileage-based fee. The expense of retrofitting the necessary technology into currently owned vehicles would necessitate a long phase in period. During phase in, the fuel tax must be retained for motorists whose vehicles do not contain the necessary technology. Motorists paying the VMT fee will receive credit for fuel tax paid. Privacy issues can be addressed through design and legal safeguards.

Under a flat VMT fee rate, vehicles with high rates of fuel consumption would be advantaged and vehicles with low rates of fuel consumption would be disadvantaged in relation to gas tax payments.

2. Congestion Pricing - Charging the owner/operator of a motor vehicle a fee for using certain roadways during periods of high congestion.

The task force determined that congestion pricing is appropriate for certain Oregon urban areas. Cost and technology are no longer impediments.

Congestion pricing can be implemented as a rate adjustment to a system-wide road charging mechanism, or as a separate, "stand alone" charge for a specific facility. The manner in which congestion pricing is implemented depends upon the type of technology selected and the type of pricing preferred by policy-makers. These factors heavily influence one another.

3. New Facility Tolling - Tolling any new road, bridge or extended lane, to the extent practicable, for construction, maintenance and operation.

While tolling roads and bridges is common practice in other states and nations in the industrialized world, Oregon has no toll roads and only two toll bridges.
The task force concluded any new roads, bridges or extended lanes should be paid for, at least in part, through tolling, when practicable.

4. Studded Tire Use Fee - Charging owner/operators of motor vehicles using studded tires for damage directly related to studded tire use.

The task force found the cost of studded tire damage repair is currently spread across all passenger vehicles, whether or not they use studded tires. Studded tire usage tends to reduce the useful life of road surfaces but the damage is not uniform across the state, ranging from one percent of total damage in Eastern Oregon to 47 percent of total damage in the Portland Metro area.

The task force is developing a recommendation for a Studded Tire Use Permit Program. Each operator of a motor vehicle using studded tires in Oregon would be required to display a permit. Permit fees would vary by county.

Preferred Scenario: The task force tentatively recommends the following configuration for a mileage-based fee.

Vehicle Miles Traveled Fee
Private Data & Fee Collection Center
(Scenario One)

Description

Mileage data is uploaded to data & fee collection center for fee calculation and monthly billings to owners of passenger vehicles using Oregon's road system. User receives an income tax credit for gas tax paid.

Data Collection Technology

Global Positioning System vs. Odometer Linkage. The task force prefers a policy that encourages or mandates installation of technology that facilitates electronic collection of VMT data for purposes of straight application of a fee amount per mile. In this respect, the task force chose two options for computing mileage driven. One option is a "simple" Global Positioning System (GPS). The other option is an Automatic Vehicle Identification System (AVI) linked to an odometer. *[Note: This option is research dependent.]*

Data Upload Technology

Upload to Center. The VMT data would be uploaded by radio frequency to a gasoline service station and forwarded to a data and fee collection center. This recommendation depends upon cost and interoperability with other parts of the preferred VMT fee system. *[Note: This option is research dependent.]*

Data Collection and Fee Retrieval

Private Center. The task force prefers a centralized method of data collection and fee retrieval that would be managed primarily by the private sector. The billing system would operate much like a privately owned public utility. The private entity would remit the fees collected to the appropriate taxing authority net of an administrative charge and costs.

Phasing Into Current Oregon Road Finance System (Credit for Gas Tax Paid by VMT Taxpayers).

Gas Taxes Refunded as Income Tax Credit. Passenger vehicle owners who pay a VMT fee would receive a credit for gas taxes paid for the same period. These taxpayers would receive a credit for actual gas tax payments against income taxes owed.

Enforcement

Private Collection and Traffic Fines. A centralized data collection center would have the authority to collect non-payment of fees through the private collection system (e.g. civil judgments, debt collection agencies, liens etc). Traffic fines would also be assessed for operation of a motor vehicle without payment of VMT fees. Suspension of vehicle registration would occur upon accumulation of fines above a threshold amount. *[Note: This option is legal research dependent.]*

Retrofitting/ Phase in Application

Phase In of Technology Acquisition (Newly Purchased Vehicles)/ No Mandated Retrofitting. If GPS technology is ultimately selected for data collection, the VMT fee would be phased in for vehicles containing a simple GPS device and associated data transmission technology. GPS and data collection technology would be required for newly purchased vehicles only. The State of Oregon could join a consortium of states having an interest in mileage-based fees to negotiate with automobile manufacturers for installation of necessary technology into new passenger vehicles after a target date. Owners of older passenger vehicles would be allowed the option to retrofit the necessary technology and be charged the VMT fee. If the AVI/odometer link technology is ultimately selected, this technology would not only be required for newly purchased vehicles but a multi-year retrofitting of older vehicles would be feasible.

Privacy Protections

Design Limitation. If GPS technology is ultimately selected for data collection, the state would be required to build into the data collection system a design limitation that prevents the state from accessing a GPS device to locate passenger vehicles in real time or to determine detailed travel history of vehicle other than to upload summary data. If the AVI/odometer link technology is ultimately selected, there will be no need for a design limitation because this technology has no ability to track vehicle location either concurrently with use or retrospectively (other than on specific facilities).

Legal Prohibition. If GPS technology is ultimately selected for data collection, A civil and/or criminal law statute would prohibit anyone connected with a state agency from accessing a GPS device to locate passenger vehicles in real time or to determine detailed travel history of vehicle other than to upload summary data. If the AVI/odometer link technology is ultimately selected, there will be no need for a legal prohibition because this technology has no ability to track vehicle location either concurrently with use or retrospectively.

Non-resident Fee Payments

Defer Resolution of Non-Resident Road Taxes & Continue Fuel Tax. Wait to resolve non-resident tax issues until after VMT fee is fully phased in. Interstate compact is likely to resolve taxation issues pertaining to interstate travel before VMT Fee is fully phased in. Continue Gas Tax indefinitely.

Setting Rate Including Administrative Cost Recovery

Revenue Neutrality Plus Cost Recovery. The VMT fee rate would be based on three factors. One, a rate of 1.25 cents per mile (e.g. based on the 24 cents gas tax divided by the current statewide passenger vehicle fleet average of 19.2 miles per gallon). Two, an amount per mile for the cost recovery of fee collection overhead. Three, an amount per mile for the cost recovery of amortized capital expenditures related to implementation of the new fee system.

Rate Adjustment Overlay

Congestion Pricing. The VMT fee rate would only be adjusted for congestion pricing as applied by area. [Note: implementation of area pricing will be deferred until all Oregon vehicles are properly equipped with necessary technology.]

Preferred Scenario: The task force tentatively recommends the following alternative configurations for congestion pricing.

Congestion Pricing
(a.k.a. "Value" or "Peak Period" Pricing

Area Pricing

Rate Adjustment to Mileage-Based Fee. Congestion pricing integrated with a mileage-based fee would be implemented as a base rate adjustment. Owing to legal limitations, this methodology for congestion pricing cannot be implemented until the mileage-based fee is applicable to all passenger vehicles that will travel in the congested area.

"Simple" GPS Based System. A "simple" GPS based system allows effective congestion pricing through peak hour pricing by area, pricing primary routes and side roads and streets equally. Implementation of this option would not occur for 20+ years because of the lengthy phase in period for GPS devices to be installed in every passenger vehicle that will travel in the congested area.

Area Pricing (Deferred). Area pricing would involve charging variable rates within a defined geography without specification or discrimination for a particular roadway or street as all routes are priced the same per mile driven within the area during the same periods. Area pricing would require installation of the "simple" GPS device in participating vehicles. Area pricing would be deferred to a time when "simple" GPS devices are ubiquitous in Oregon passenger vehicles.

Allocation By Category. All funds generated from congestion pricing within a defined area would be allocated to the modernization of state, city or county roadways within the defined area by appropriate jurisdiction based on VMT data for each category of roadways.

Facility Pricing
(An Alternative)

"Stand Alone" Congestion Pricing. Congestion pricing would be implemented independently of a mileage-based fee. There would be no local adjustment to the statewide mileage-based fee.

AVI Based System. An AVI based system would facilitate a "stand alone" principally electronic tolling system operating independently of a mileage-based fee. This would allow peak hour pricing of specific roadways with a great amount of configuration flexibility depending on capital cost limitations.

Facility Pricing (Concurrent with a VMT fee Phase In). While not comprehensive, facility pricing on a "stand alone" basis is the only pricing strategy that can be implemented in conjunction with a VMT fee phase in. Congestion pricing in this manner could be applied to specific roadways and bridges or to HOT lanes or queue-jumping at ramp meters.

Allocation by Roadway. All funds generated from congestion pricing of a particular roadway would be allocated for the modernization of that roadway (or parallel roadways within the same corridor).

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Tel: (503) 986-4284

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Preliminary Report to Legislative Assembly

September 2002

I. Introduction

A. Charge by Oregon Legislative Assembly (HB 3946). Recognizing the gas tax is a declining revenue source for Oregon's road system, the 2001 Legislative Assembly sought to address the long term viability of Oregon road finance through passage of House Bill 3946 mandating formation of the Road User Fee Task Force. *(See Appendix A for text of HB 3946.)* The bill directs the Road User Fee Task Force, which sunsets on January 2, 2010, to establish a long-term vision for Oregon road finance. The Legislative Assembly adopted the following statutory purpose for the task force,

> "To develop a design for revenue collection for Oregon's roads and highways that will replace the current system for revenue collection." Section 2 of HB 3946 (2001)

B. Formation of the Road User Fee Task Force. In late November 2001, the Governor, Senate President and Speaker of the House of Representatives appointed twelve members to the Road User Fee Task Force. The appointments were made according to the requirements of statute. Task force membership consists of four legislators; two Oregon Transportation Commissioners; a city mayor; a county judge; a transportation research academic; a private business person; a representative of the Highway Users Conference and a public policy analyst. *(See Appendix B for Appointment List.)*

C. Mission Statement. The Road User Fee Task Force adopted the following mission,

> "To develop a revenue collection design funded through user pay methods, acceptable and visible to the public, that ensures a flow of revenue sufficient to annually maintain, preserve and improve Oregon's state, county and city highway and road system."

The task force recognized its mission did not include making recommendations on the level of funding for the road system but rather to address the replacement of existing revenue mechanisms, such as the fuel tax, that will be less effective revenue sources in the future.

II. The Context

A. History of Fuel Taxes in Oregon.

1. **1917 to 1982 - Fuel Taxes Finance Construction of Oregon's Highway System**. Oregon enacted the nation's first fuel tax on gasoline in 1919. Build-out of the first Oregon Highway Plan provided the motivation for this new tax and several quick rate increases.

2. **1970 to 1981 – Rampant Inflation Disrupts Road Purchasing Capability**. Rampant inflation during the 1970s and early 1980s had a deleterious effect on road revenues. By 1981, increasing road costs had seriously eroded the buying power of gas tax revenues. At great risk was Oregon's ability to maintain its roads and add capacity for increasing numbers of Oregonians who were driving more miles every year. Notwithstanding the deepening crisis, voters rejected gas tax increases in 1976, 1978, 1980 and 1982.

3. **1980s - Fuel Efficiency Reduces Gasoline Purchases and Gas Tax Revenues**. While inflationary pressures continued to erode the purchasing power of the gas tax throughout the 1980s, a new problem emerged that had an equally negative impact upon available gas tax dollars. Owing to dramatic increases in gasoline prices, motorists sought and purchased more fuel efficient motor vehicles. The improved statewide fleet fuel efficiency reduced gasoline purchases and, correspondingly, gas taxes revenues as well.

4. **1983 to 1991 - Legislature Responds to Road Revenue Crisis**. Notwithstanding voter rejection of ballot measures for gas tax increases, the Legislative Assembly sought to resolve the crisis, enacting gas tax increases every session from 1981 through 1991. By 1993, the gas tax was 24 cents.

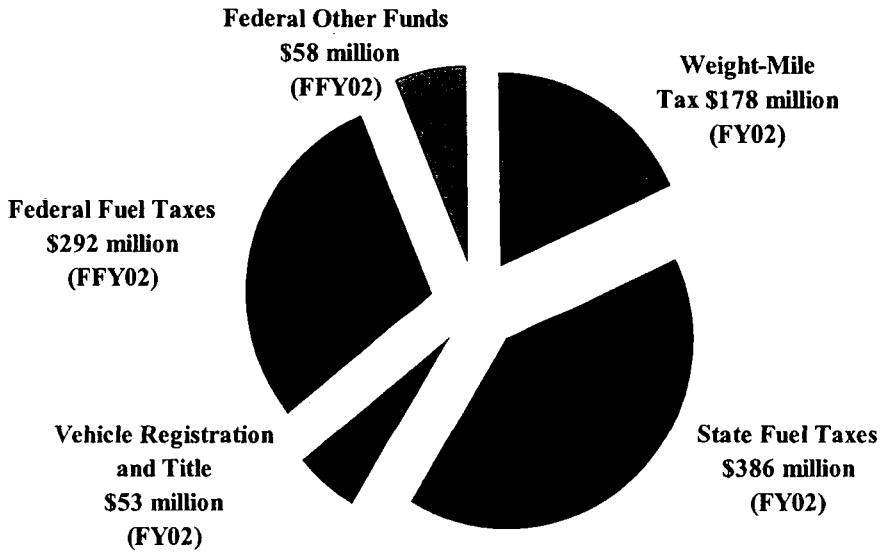
5. **Post-1993 - Gas Tax Rate Stalls**. The new road dollars allowed a limited road modernization program in the early-1990s. By the late-1990s, however, inflation, increasing statewide fleet fuel efficiency and a stagnant gas tax rate eroded road revenues enough for the Governor to mandate a

"maintenance only" policy. The voters rejected a gas tax increase in 1999. By 2002, the gas tax had not increased in almost ten years.

B. Importance of Fuel Taxes to Road Finance in Oregon. Fuel tax revenue constitutes the bulk of the total funding available for Oregon roads. Gas taxes, state and federal, make up from approximately 60 to 70 percent of total Oregon road revenue for a given year, depending upon the annual federal contribution. In 2002, gas taxes comprise 70 percent of the total road budget.

Chart 1

Oregon Road Revenue Sources for 2002 = $967 million

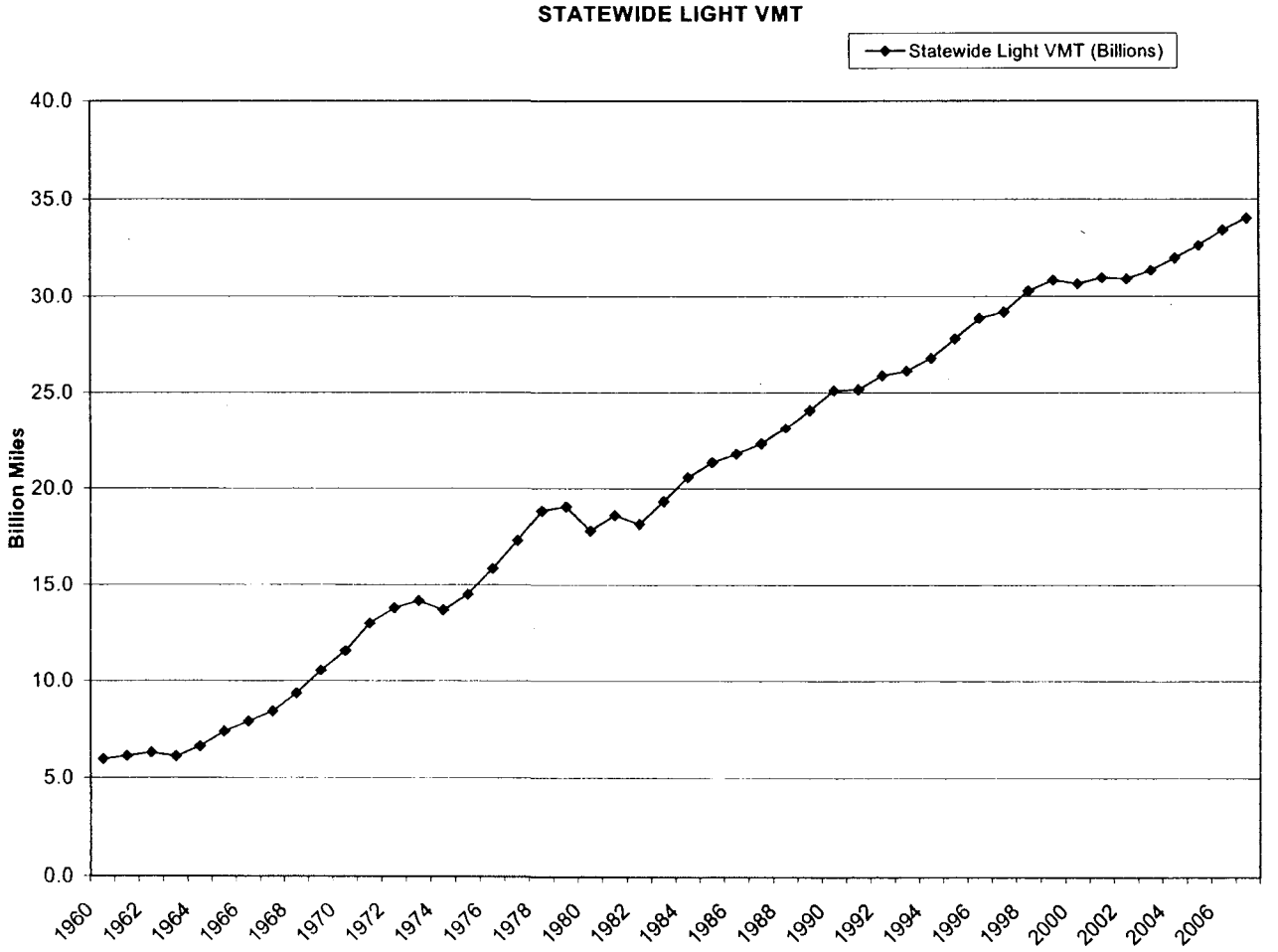


Furthermore, under the Oregon Constitution, the level of weight-mile tax for heavy vehicles (i.e. trucks) is directly linked to fuel tax revenues. For example, if the fuel tax revenues drop, the Legislature would be obligated to either reduce weight-mile taxes or increase the fuel taxes.

C. Economics of the Past - Erosion of Fuel Tax Purchasing Power as Road Needs Rise.

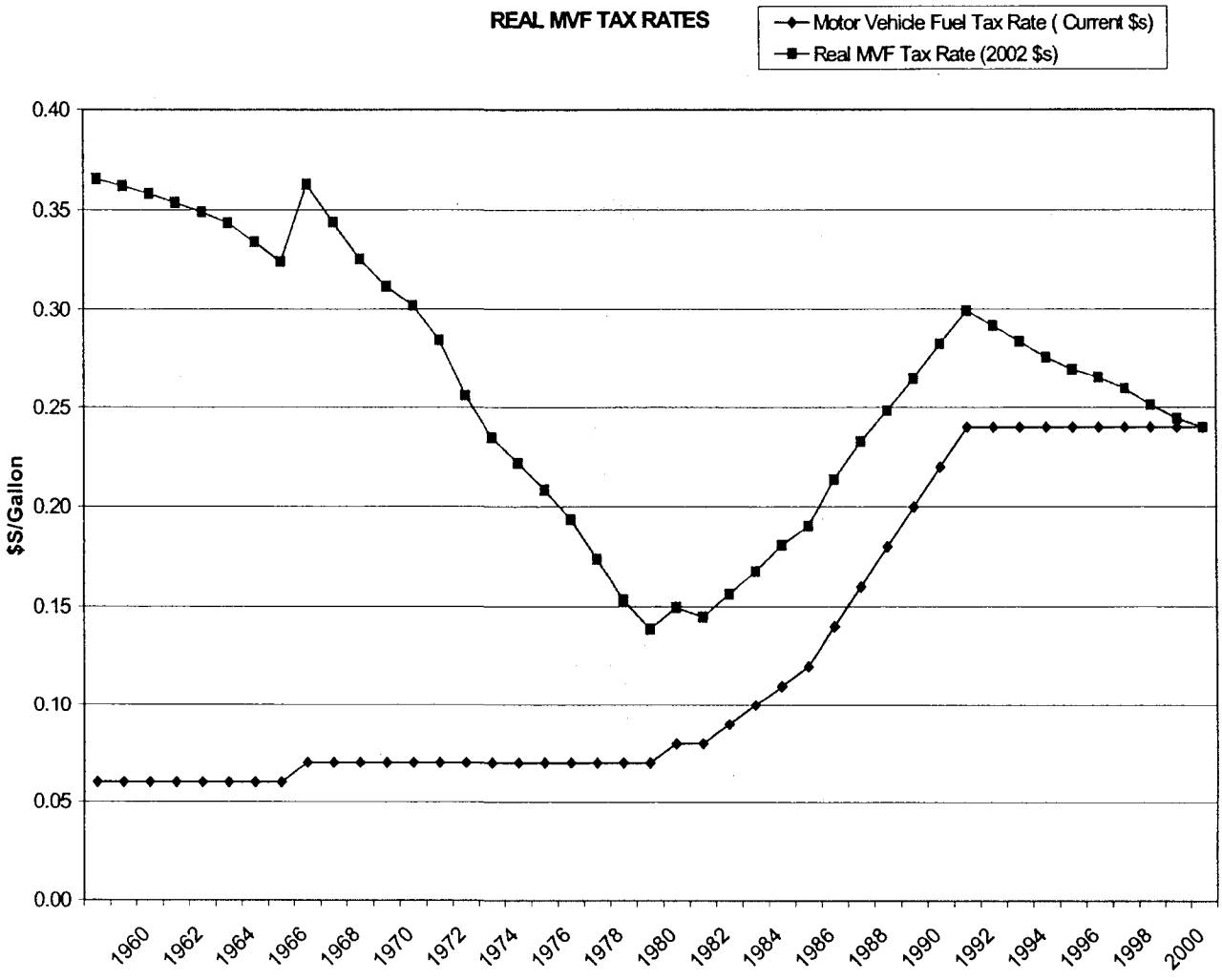
1. **Economic and Population Growth Foster Rise in Vehicle Miles Traveled.** Over the past 40 years, Oregon experienced a population growth spurt and a leap in the number of miles driven per year by the average motorist (a.k.a. vehicle miles traveled or "VMT") per year.

Chart 2



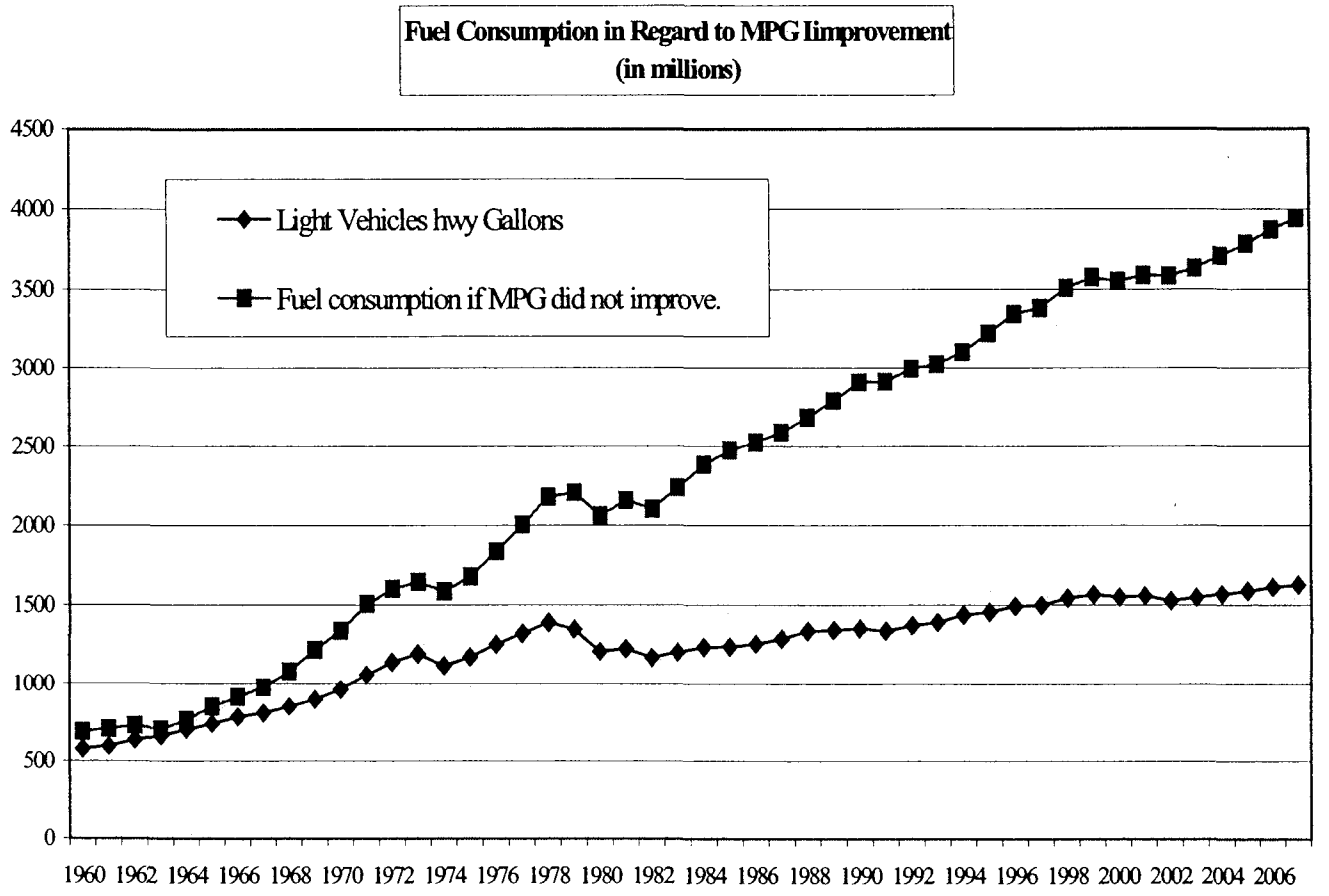
2. **Inflation of Road Costs**. Starting in the late 1960s and continuing through the early 1980s, the increase in road costs seriously eroded the purchasing ability of gas tax revenues. A number of increases in the gas tax rate from 1982 through 1993 stalled the erosion but the purchasing power of the current 24-cent gas tax is dropping again.

Chart 3



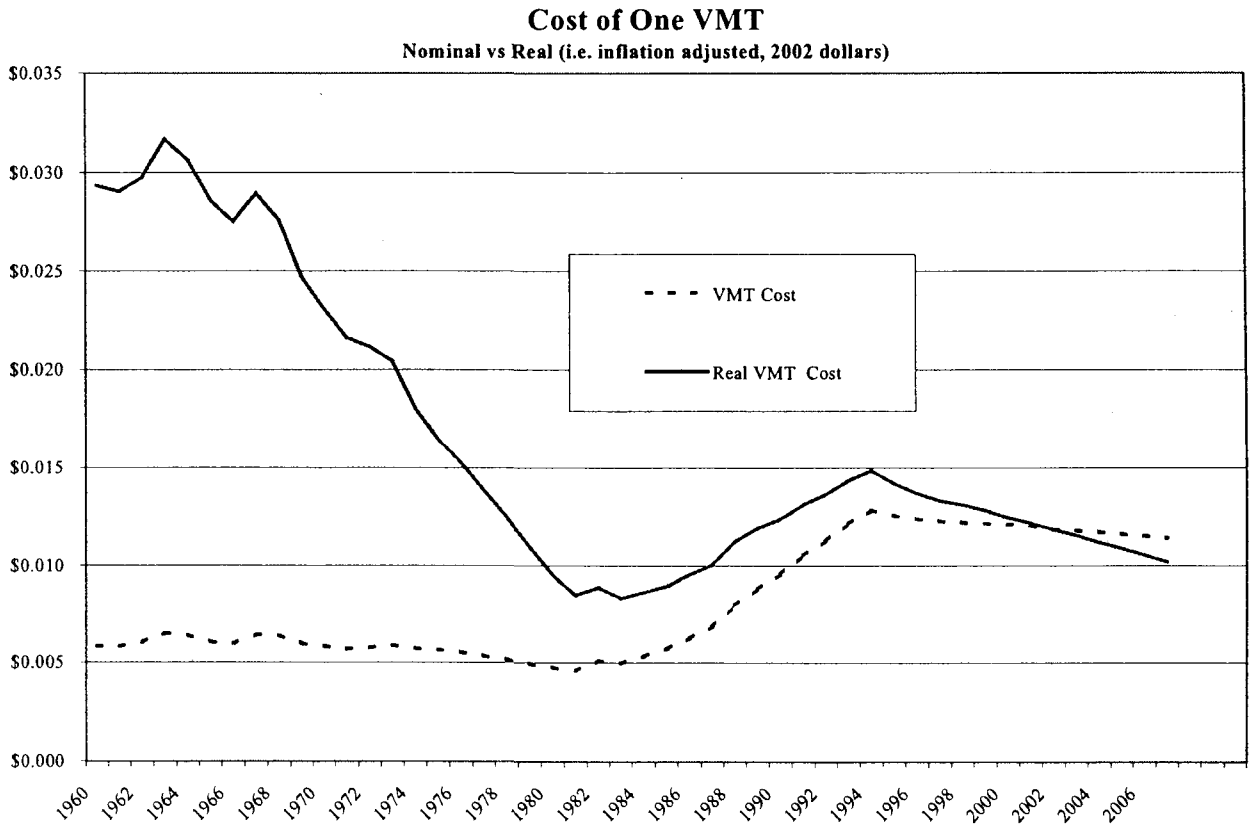
3. **Rate of Gasoline Consumption Slows.** Overall gasoline consumption has gradually increased over the past 40 years, largely due to population growth and an increasing number of vehicle miles traveled per year. Since 1978, however, a near doubling of average vehicle fuel efficiency has dramatically slowed the fuel consumption rate. As chart 4 below indicates, statewide fuel consumption would have been much greater had fuel efficiency not improved.

Chart 4



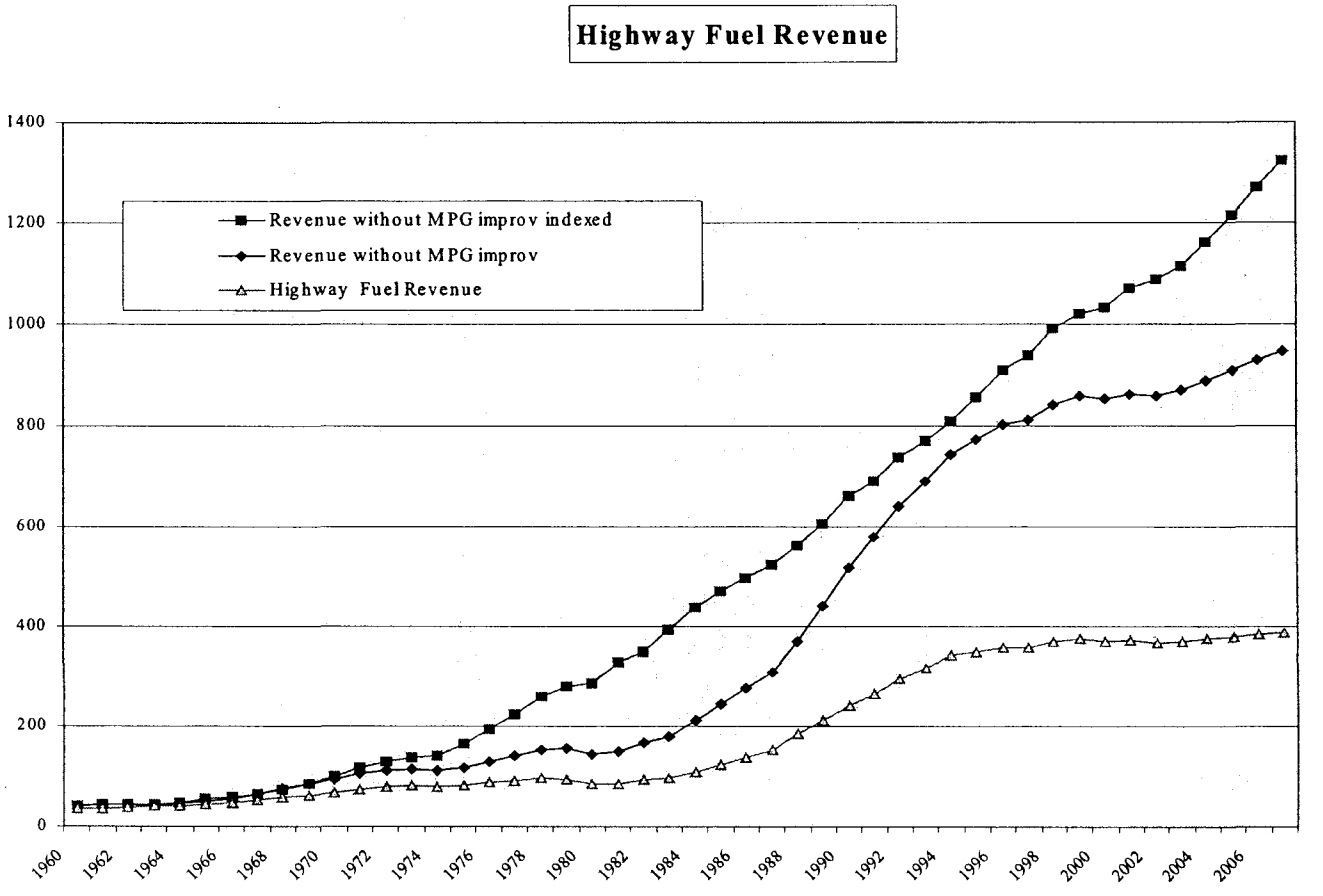
4. **Effect of Inflation and Fuel Efficiency on Cost per Mile Driven**. In 1960, the gas tax operated much like a tax on vehicle miles traveled. Other than for a handful of imports (e.g., VW Beetle), the average mileage per gallon was essentially the same for every vehicle. In 1960, inflation was virtually non-existent and virtually every motorist who drove more miles paid a fair share of the increased cost to the system because of those additional miles. This condition changed with the emergence of rampant inflation and the advent of fuel efficiency improvements to vehicles. The result was a large reduction in the real cost (i.e. cost adjusted for inflation, 2002 dollars) of driving per mile since 1960, dropping from 3.5 cents per mile in 1960 to 1.25 cents per mile in 2002.

Chart 5



5. **Effect of Fuel Efficiency and Inflation on Gas Tax Revenues.** The combination of increased fuel efficiency of the statewide passenger vehicle fleet and increased road costs had the effect of a "one, two punch" on the ability of road revenues to meet the ever increasing demands made on the road system by growing numbers of Oregonians driving more miles annually. This combination directly contributed to destruction of the gas tax potential to raise adequate revenue.

Chart 6

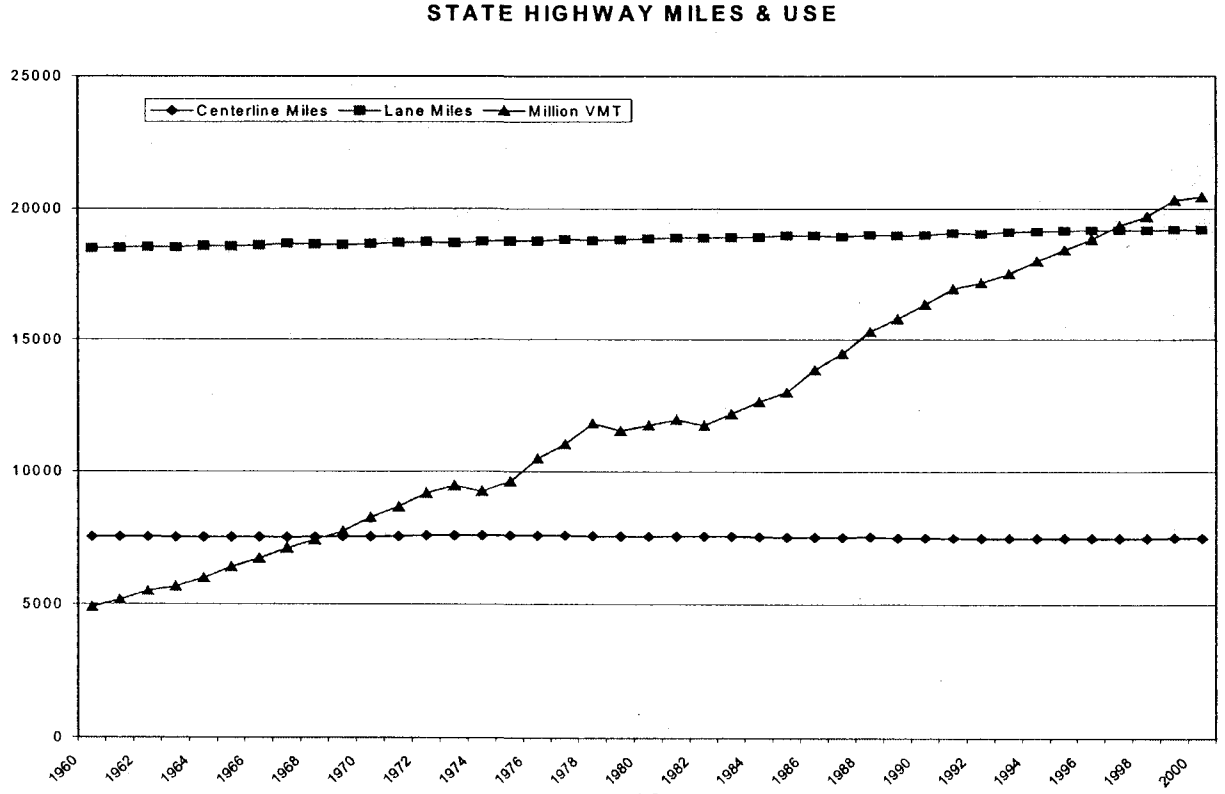


(See Appendix C for the data used for charts four five and six.)

6. **Effect of Growth, Fuel Efficiency and Inflation on State Highway System and Congestion.** While total road revenues have tended to increase over time due to an increasing population driving more miles per vehicle, the purchasing power of these revenues has fallen behind. Available revenues are woefully behind the rate of inflation especially taking into account the greater road system needs caused by the stress of steadily increasing numbers of vehicles on Oregon's roads. The State Highway System simply has not grown quickly enough to meet the needs of Oregon's motoring population. In 1960, Oregonians drove 4.9 billion miles on 18,478 lane miles of the State Highway System. Forty years later, in 2000, Oregonians' driving quadrupled to 20.5 billion miles but the number of lanes miles in the State Highway System increased only four percent to 19,200 lane miles. (See Appendix D for State Highway Mileage Summaries)

Chart 7

(Note: For illustrative purposes, the task force set up chart 7 using state highway system data, intending no preference for state highways over local roads.)



D. Economics of the Future – Further Erosion of Fuel Tax Purchasing Power as Fuel Efficiency Improves.

1. **Technological Improvements To Allow Even Greater Fuel Efficiency.** New passenger vehicle technology will dramatically improve the average fuel efficiency of the statewide passenger vehicle fleet in Oregon.

   - **Hybrid Electric Vehicles (HEVs).** Every major automobile manufacturer either has a hybrid electric vehicle (HEV) on the market or has plans to introduce one soon. The HEVs are powered by both a gasoline fueled engine and an electric engine, alternating from one to the other automatically. HEVs generate and store electricity generated during driving activities that ordinarily cause a loss of energy (e.g. braking). HEVs do not require an external transfer of electric power (i.e. HEVs do not need to be "plugged in"). Currently, HEVs have the ability to obtain 40 to 70 miles per gallon. The automobile manufacturers that entered the HEV market earliest are now planning HEV options for more models.

   - **Fuel Cell Vehicles.** The Bush administration is encouraging automobile manufacturers to develop engines powered by fuel cells. This technology generates electricity and heat through a chemical reaction, other than combustion, of hydrogen and oxygen.

   - **Composite Materials.** Composite materials are under development that will make vehicles stronger but weigh much less. An overall reduction in vehicle weight will increase the miles per gallon ratio.

2. **Projected Gasoline Price Increases To Increase Demand for Technology Improvements**. Before 2010, the production of conventional oil will crest and conventional oil production will enter a permanent decline. The United States is 30 years past the mid-point of crude oil production capacity. This means the United States is now consuming the second half of its ultimate recovery of oil, that is, the combination of oil extracted to date, known reserves and projected discovery of oil. The world's crude oil production capacity is just now reaching its mid-point. The result will either be significant increases in the price of gasoline as more expensive oil extraction technologies are employed or, quite possibly, a shift into use of alternative fuels.

(See "The End of Cheap Oil" in Scientific American, March 1998.) Over the short term, gasoline prices are likely to increase significantly. As gasoline prices rise, technological improvements and alternative energy sources become more cost effective, affordable and in greater demand.

3. **Projection of Fuel Tax Revenues to 2012.** Due to fuel efficiency improvements, Oregon fuel tax revenues from the sale of gasoline are likely to level off and then permanently drop during the next ten years. ODOT is currently undertaking an analysis to project future revenues to 2012. This analysis will be completed in time for presentation to the 2003 Legislative Assembly.

III. Proceedings.

A. Analytical Process. The Road User Fee Task Force held seven meetings from November 30, 2001 to September 6, 2002. *(See Appendices Y, Z, AA, BB, CC and DD for Task Force Minutes.)* The task force received the results of a literature review on alternatives to the fuel tax, including mechanisms and technology. The task force heard twelve other presentations and reports pertinent to their analysis. *(See Appendix E for a Listing of Presentations and Reports.)* The task force made policy recommendations about the configuration of a new road finance system for Oregon and analyzed 26 potential revenue mechanisms. During these meetings, the task force adopted a public outreach process and received comment from a number of stakeholders.

B. Public Outreach Process. The task force accommodated public testimony at each of its meetings. Additional public comment was received at three public hearings in Pendleton, Portland and Coos Bay. *(See Appendix F for Summary of Public Comment.)* In addition, the task force initiated an interactive website [website address: www.odot.state.or.us/ruftf] received and responded to numerous public comments through this means as well as regular mail communications. The media reports also informed the public about the work of the Road User Fee Task Force. News articles and editorials appeared in The Oregonian, The East Oregonian, Coos Bay World, The Statesman Journal, The Woodburn Independent, The Medford Mail Tribune, The Sandy Profile, Bend Bulletin, and The Daily Journal of Commerce. Task Force staff held two stakeholder meetings in January and June 2002 to inform stakeholders of the process and proceedings and to gather comment on process and task force recommendations. Task force staff made presentations to stakeholder groups, including the Oregon Highway Users Alliance, National League of Cities' Transportation Committee, Westside Economic Alliance, Institute of Transportation Engineers and American Public Works Association and Northwest Transportation Conference, and the Interim House Transportation Committee and Interim Senate General Government Committee.

C. Findings of Fact. The task force made the following findings of fact.

1. **Average Motorist's Road Taxes and Fees.** The average Oregon motorist pays $165 per year in state taxes and fees for the road system. The average motorist pays $115 per year in federal tax for the road system.

2. **Effect of Technology Improvements**. Since 1970, when the average passenger vehicle in Oregon achieved 11.8 miles per gallon, the Oregon fleet of passenger vehicles has become ever more fuel efficient, reaching an average of 19.1 miles per gallon in 2000. This trend will continue in the future with dramatic increases in statewide fleet fuel efficiency expected. Newer engines, particularly hybrid electric vehicles and fuel cell powered vehicles, and improved materials, such as lighter but stronger composite materials, will gradually allow the statewide fleet to achieve further, significant increases in fuel efficiency.

3. **Fuel Tax Unsustainable**. Attributable to the greatly improving technology for fuel efficient automobiles, the fuel tax will become an ever shrinking component of the road revenue system. Soon total fuel tax revenues for gasoline and other fuels, such as propane, liquid natural gas and hydrogen, will permanently drop off unless increases in fuel taxes occur. Exactly when the permanent drop off in fuel tax revenues will occur is unknown at present. ODOT is gathering research to determine when this will occur and expects to make a prediction in time for the 2003 Legislative Assembly.

4. **Functionality of the Fuel Tax on Gasoline**. The task force found that from the standpoint of function and cost, the fuel tax on gasoline is an excellent revenue source. The administrative cost for the gas tax is one million dollars a year or 1/4 of one percent of the revenue raised.

5. **Legality of Running Two General Revenue Systems Concurrently**. During a phase in of a new road revenue system, it is likely that one set of vehicle owner/operators will pay one tax or fee and another set of vehicle owner/operators will pay another tax or fee. Upon conferring with a representative of the Oregon Department of Justice, the task force found that offering the newer system to those desiring to use it in place of the old system would likely eliminate any legal impediment.

6. **Rural Roads' Ability to Self-Sustain**. The task force found that many rural highways are essential to the Oregon economy and the efficient movement of raw materials, goods and services along rural highways is desirable. After initial research on the question of whether rural roads generate enough revenue on a vehicle miles traveled (VMT) basis to

pay for annual maintenance and preservation, the task force found the available information was insufficient to prove subsidization was necessary and that additional research should be conducted on this question. *(See Appendix G for Estimates of Revenue Earned on Selected Rural Roads.)*

7. **Geographical Comparisons of Annual Mileage**. Available evidence does not indicate residents of rural counties drive substantially more miles per year than people living in urban counties. Anecdotal information presented during task force meetings and hearings indicates rural residents may drive longer distances for some purposes (e.g. trips to doctors or dentists, inter-school events and public meetings). On the other hand, statistical evidence indicates commute times are shorter in rural areas, including a greater likelihood of walking. Overall, statistical evidence from a sampling of Oregon counties indicates residents of rural counties may drive ten percent more than residents of urban counties, but this evidence is not conclusive, as ODOT has identified statistical aberrations within the data. *(See Appendices H, I and J for Geographical Mileage and Commute Data.)*

8. **Technological Opportunity for Mileage-Based Fee**. The task force identified numerous technologies that could facilitate application of a mileage-based fee. These include the global positioning system (GPS), automatic vehicle identification (AVI), radio frequency transmission, cellular transmission, bar code identification, electronic toll tags (a.k.a. transponders) and license plate recognition systems. These devices have become more accurate and less costly in the last few years. The task force finds it technically feasible to implement a mileage-based fee dependent upon numerous combinations of these technology components. *(See Appendix K for additional description of available technology.)*

IV. Policy Decisions for Alternative Road Finance System.

A. Criteria for New Revenue Sources. The task force made the following policy choices for the criteria for the new revenue sources comprising the recommended new revenue system design.

- **Users Pay.** Any new revenue system should be founded upon "user pay" methods that are directly related to providing road infrastructure and services. The task force had considerable discussion and debate over the issue of "Who is a user?" Some task force members viewed a user strictly as those traveling on the roads and streets they use. Others took a broader view that a motorist desiring the availability of a road to a distant locale is a user of that distant facility as well although the motorist may rarely travel on it. The task force was unable to reach consensus on the definition of "user."

- **Local Government Sources.** Revenue sources that are traditionally and primarily the province of local governments should not be usurped by the state.

- **Revenue Sufficiency.** The sources comprising the new revenue system must collectively have the ability to raise revenue sufficient to ultimately replace the gas tax as the primary revenue source for Oregon roads.

- **Transparent to the Public.** A new revenue source should be visible to the payers and not confusing. The public should know how much they pay in taxes or fees under any new revenue source. The public should also understand how the new revenue source is calculated.

- **Non-Governmental Burden.** A new revenue source should not impose substantial financial burdens on taxpayers or the private sector involved with tax or data collection.

- **Enforceability.** A new revenue source must be enforceable to ensure tax evasion is not substantial.

- **Support Entire Highway and Road System.** A new revenue source should be designed to support the operation, maintenance and preservation of the highway and road system for the state, cities and counties in all parts of the state as the gas tax does today.

- **Public Acceptability**. A new revenue source should be acceptable to the public.

B. Potential Revenue Sources Not Developed. Section 2 of the enabling legislation requires the task force to consider "all potential revenue sources" and the task force has followed this directive. Since November 2001, the task force analyzed over 20 different possible road finance mechanisms identified by staff, task force members, ODOT employees, legislators and members of the public. The following potential revenue sources are not included in the task force's recommendation for the reasons stated.

	REVENUE SOURCE	PRINCIPAL REASON NOT DEVELOPED
1	General Fund	Not User Fee
2	Battery Tax	Insufficient Revenue
3	Bicycle Fees	Insufficient Revenue
4	Drive-Through Service Fee	Imprecise User Fee
5	Electricity Generated by Vehicle Tax	Not Reliable/ Technological Feasibility Unknown
6	Emissions Fee	Imprecise User fee
7	Indexing Gas Tax	Imprecise User Fee
8	New Vehicle Tax	Not User Fee
9	Parking Fees	Local Government Source
10	Property Taxes	Not User Fee
11	Registration Fees	Not User Fee
12	Rental Car Tax	Imprecise User Fee
13	Road Utility Fees	Local Government Source
14	System Development Charges	Not User Fee/ Local Government Source
15	Temporary Visitor Access Fee	Insufficient Revenue/ Constitutional Constraints
16	Tire Tax	Insufficient Revenue
17	Title Fees	Not User Fee
18	Transportation Impact Fee	Local Government Source
19	Use Fuel Taxes Increase	Not Reliable/ Imprecise User Fee
20	Vehicle Impact Fee	Not User Fee
21	Vehicle Ownership Tax	Not User Fee
22	Weight Mile Truck Tax Increase	Already Precise User Fee

C. **Development of Potential Alternative Revenue Sources.** The task force chose to develop four revenue sources to form the new revenue system design. The task force considers each of these sources to be a "precise user fee," able to generate sufficient revenue, not a local government revenue source, transparent, enforceable, able to support the highway and road system in all jurisdictions and not imposing an undue burden on the private sector or road users. Furthermore, comments at task force meetings and hearings indicate a measure of public support for these revenue sources but opposing comments were made as well. Opposition appears to result not from opposition to the potential revenue sources themselves but rather from a preference for the existing fuel taxes on gasoline and a lack of understanding of the inability of fuel taxes to remain sustainable into the future.

- **Mileage-Based Fee** - A distance-traveled charge imposed according to the amount a vehicle owner/operator uses the road system. The task force considers a mileage-based fee to be the principal general revenue source for a new system that would ultimately replace the gas tax.

- **Congestion Pricing** (a.k.a. "value" or "peak period" pricing) - Charging the owner/operator of a motor vehicle a fee for using certain roadways during periods of high congestion. This can be accomplished either through an independent electronic system using roadside readers or as a rate adjustment to a mileage-based fee for time of day travel in specific geographic areas where congestion prevails.

- **New Facility Tolling** - Tolling any new road, bridge or extended lane, to the extent practicable, for construction, maintenance and operation.

- **Studded Tire Use Fee** – Charging owner/operators of motor vehicles using studded tires for the damage caused to road pavement that is directly related to studded tire use.

V. Broad Revenue Source Alternative to the Current System of Taxing Highway Use Through Motor Vehicle Fuel Taxes.

A. Policy Recommendations for Mileage-Based Fee. The task force recommends the configuration of a mileage-based fee be developed according to the following criteria.

- **Accuracy.** The configuration of any mileage-based fee mechanism should facilitate accurate determination of distance traveled.

- **Reliability, Security and Technological Feasibility.** The technology used for a mileage-based fee must be reliable, secure and technologically feasible.

- **Minimal Evasion Potential.** The configuration of any mileage-based fee mechanism should allow minimal opportunities for evasion or fraud.

- **Not Taxing Mileage Outside of Oregon.** A mileage-based fee should not apply to mileage traveled by Oregonians outside the borders of Oregon.

- **Minimal Burden Upon Private Sector.** Required capital expenditures and the costs of collection for a mileage-based fee should minimally burden the private sector.

- **Retrofitting Affordability.** Any retrofitting of new technology into older vehicles should be affordable.

- **Seamless Transition.** Transition to a mileage-based fee should be essentially seamless with no more than an incidental loss of gas tax revenue.

- **Privacy.** Oregonians must be assured the technology used for any mileage-based fee is not used to violate the level of privacy expected by the general public.

B. Mileage-Based Fee. The task force developed six scenarios for a mileage-based fee. The six scenarios are differentiated by the mode of fee collection and payment. *(See Appendix L for the advantages and disadvantages of each scenario, as identified by the task force.)*

1. **Scenario One – Vehicle Miles Traveled Fee (Data & Fee Collection Center).** Actual mileage data is uploaded to data & fee collection center for fee calculation and monthly billings to owners of passenger vehicles using Oregon's road system. Data collection would either occur through global positioning system technology (GPS) or automatic vehicle identification technology (AVI) linked to the odometer. *(See Appendix M for the list of options considered by the Road User Fee Task Force under Scenario One.)*

2. **Scenario Two – Vehicle Miles Traveled Fee (Service Station Collection/ Actual VMT with Credit).** Actual mileage data is uploaded to service stations for fee calculation and payment. All operators of vehicles containing a global positioning system device would be charged a VMT fee based on mileage since last fueling. User receives credit for fuel tax paid. Data collection would either occur through GPS or AVI/odometer linkage technology. *(See Appendix N for the list of options considered by the Road User Fee Task Force under Scenario Two.)*

3. **Scenario Three – Vehicle Miles Traveled Fee (Service Station Collection/ Switch at Pump with No Credit).** Actual mileage data is uploaded to service stations for fee calculation and payment. Switch at gas pump (electronic or manual) determines which user pays VMT fee and which user pays gas tax. Shifts incidence of taxation from distributor level to service station level. Data collection would either occur through GPS or AVI/odometer linkage technology. *(See Appendix O for the list of options considered by the Road User Fee Task Force under Scenario Three.)*

4. **Scenario Four – Vehicle Miles Traveled Fee (Service Station Collection/ Estimated VMT with Credit).** Mileage data is estimated through electronic calculation at service stations for fee calculation and payment. Mileage data estimate is determined as a function of the amount of gasoline purchased and the EPA fuel efficiency rating for the vehicle. User receives credit for gas tax paid. This scenario is based on Automatic Vehicle Identification technology. *(See Appendix P for the list of options considered by the Road User Fee Task Force under Scenario Four.)*

5. **Scenario Five – Vehicle Miles Traveled Fee (Department of Motor Vehicles Collection).** Actual mileage data is uploaded to Department of Motor Vehicles locations for fee calculation

and payment as a condition of registering passenger vehicles. User receives credit for gas tax paid. Data collection would either occur through GPS or AVI/odometer linkage technology. *(See Appendix Q for the list of options considered by the Road User Fee Task Force under Scenario Five.)*

6. **Scenario Six – Statewide Tolling**. System-wide spot tolling calibrated to reflect approximate VMT based on Automatic Vehicle Identification devices. Charging of tolls is primarily electronic through on board devices. Could apply to the state highway system only or to state and local road systems together. *(See Appendix R for the list of options considered by the Road User Fee Task Force under Scenario Six.)*

C. **Issues Concerning Configuration of a Mileage-Based Fee.** Several critical issues that must be dealt with in designing a new general revenue source based on distance traveled.

1. **Technology: Reliability, Security, Feasibility and Interoperability**. The technology implemented to support a mileage-based fee must perform the following functions.

   - Calculation of mileage traveled.
   - Differentiation of mileage traveled within Oregon from mileage traveled out-of-state.
   - Data Storage.
   - Data Transmission (if fee payment not on-site).
   - Data Processing.
   - Calculation of fee owed.

   The technology configuration implemented must be reliable, secure, feasible and interoperable with the other technology components. The task force has engaged the Mobile Technology Group of Oregon State University for analysis of these issues. Relying on OSU findings, the task force will advise ODOT of the best technology configuration for field testing during the pilot program phase beginning July 1, 2003.

   Task Force Conclusions: The global positioning system (GPS) devices and the automatic vehicle identification (AVI) devices combined with radio frequency transmission offer the most functional and reliable technology upon which to base a mileage-based fee upon. The task force rejected the "paper and pencil" method as likely to lead to widespread evasion and a highly inaccurate assessment of in-state

mileage. The task force rejected electronic hub-odometers as less effective than GPS and unable to support congestion pricing. The task force grew wary of cellular transmission of data because of identified concerns about the security of transmissions.

2. **Expense of Retrofitting**. The expense of retrofitting already owned vehicles makes certain options cost prohibitive to implement over a short time frame. For example, global positioning system (GPS) devices can range from simple "models" to "complex" models that range from $300 to over $1,000 per device plus installation cost. Even retrofitting the least expensive version can make a one-step implementation practically impossible. Add the cost of retrofitting data transmission technology to the cost of installing a "simple" GPS device at a total cost of $500 for every passenger vehicle in Oregon makes the total price tag for retrofitting well over one billion dollars. On the other hand, independent AVI devices cost only $10 (plus installation) but do not have the capability of the GPS device so the application is limited. The task force is exploring the prospect of an AVI device linked to a vehicle's odometer, an option that may only cost $125 to retrofit.

   Task Force Conclusions: Retrofitting of GPS devices into every Oregon passenger vehicle is cost prohibitive over a short timeframe, likely to cost $1.5 billion. Retrofitting of independent AVI devices is affordable. Retrofitting of AVI devices linked to the odometer is also affordable.

3. **Phasing**. The retrofitting problem for GPS devices can be managed in several ways. One possibility is to phase in the retrofitting over a definite period such as five or six years. This would require an annual expenditure of around $200 to $300 million per year, based on the current "off the shelf" cost of the GPS technology. Another possibility is to apply a GPS-based mileage fee only to new or newly registered vehicles combined with a mandate for these new vehicles to enter the marketplace properly equipped with the necessary device, thus avoiding cost to the state for retrofitting. Research from the Minnesota pooled funds study indicates such a strategy could take more than 20 years to reach the point of 95 percent market penetration. Thus, the range for a full phase in of a GPS-based mileage fee is roughly six to 20 years. Retrofitting AVI devices linked to odometers may be able to be phased in a relatively short period of time, perhaps five or six years.

Task Force Conclusions: The task force recommends phasing in implementation of a either a GPS-based system through a mandate that new vehicles sold in Oregon contain the necessary GPS technology or phasing in implementation of AVI/odometer linkage technology through retrofitting of older vehicles and a new vehicle mandate. The mileage-based fee would apply only to vehicles containing the necessary technology.

4. **Retention of Fuel Tax.** During any phase-in period for a VMT fee, it will be necessary for the state to retain both the gas tax and the VMT fee to ensure vehicles without the necessary technology continue to pay their share of road taxes, including out-of-state users.

   Task Force Conclusions: The mileage-based fee would apply only to vehicles containing the necessary technology. The fuel tax on gasoline would apply to vehicles without VMT fee technology. The fuel tax would apply to out-of-state vehicles until an interstate compact is adopted to manage the issue of taxing mileage for interstate travel.

5. **Crediting or Refund of Gas Tax Paid.** During a phase in period many vehicle owner/operators will pay taxes and fees under two systems – the gas tax and VMT fee. Others will pay only the gas tax. A credit of either the gas tax against the mileage-based fee, or vice versa, or against another tax or fee (e.g. registration fee or income tax), will be necessary to avoid double taxation and unequal treatment compared to those paying only the gas tax. Cash reimbursement of gas tax paid is another possibility.

   Task Force Conclusions: An income tax credit for actual fuel taxes paid is the simplest method handling this problem.

6. **Capital Costs of Implementation.** A mileage-based fee will require significant capital expenditures beyond retrofitting, however it is configured. Researchers at Oregon State University have assisted the task force in determining the capital costs for implementation of the six scenarios. Researchers at Portland State University are in the process of assisting the task force in determining capital costs for a centralized data and fee collection center. The DMV has assisted the task force in determining capital costs for DMV collection.

Task Force Conclusions: [On hold until after research is complete.]

7. **Administrative Overhead Costs.** Depending upon the configuration of a mileage-based fee, the administrative costs of operation could be significant. To assist in the determination of the costs for the six scenarios, the task force has engaged consultants at Portland State University and Oregon State University. DMV has also assisted the task force in determining administrative overhead costs for DMV collection. The PSU and OSU reports are due on October 15, 2002.

   Task Force Conclusions: [On hold until after research is complete.]

8. **Public Vs Private Administration.** A mileage-based fee could be administered either through an existing private collection mechanism (e.g. payment at gasoline pump), an existing government collection mechanism (e.g. DMV registration fees), a new government collection mechanism or a new private collection mechanism.

   Task Force Conclusion: A private fee collection mechanism is likely to be the most cost effective and administratively efficient.

9. **Public Acceptance: Privacy.** Some Oregon citizens are uncomfortable with a government or other entity having the ability to follow their movement either in "real time" or from a travel history. Without safeguards, global positioning system (GPS) devices could allow such tracking. Transfer of only summary data or encrypted data would prevent the ability to establish a travel history. [Note: transfer of only summary data would limit the citizen's ability to challenge a fee billing.] Legal mandates could prevent government or other involved entity's uploading of recorded tracking data from vehicles and could establish criminal penalties for engaging in tracking activities. Privacy issues for AVI devices are insignificant because AVI devices are technologically incapable of tracking vehicle movement.

   Task Force Conclusions: Technological and legal safeguards can be built into a GPS-based mileage-based fee that will prevent anyone other than the vehicle operator from knowing the vehicle's movements.

10. **Public Acceptance: Transparency Vs Ease.** A natural tension exists between twin goals of having a mileage-based fee be obvious to the payer and easy to pay. Payment of a mileage-based fee at the gasoline pump with a credit of gas tax paid would facilitate transition to a mileage-based fee. Vehicle operators would not have to change travel patterns or payment methods. On the other hand, paying at the pump hampers both visibility of the fee payment and recognition of the mileage driven and fee amount paid. For fee collection other than at the gasoline pump, the effect is the opposite. Non-pump collection requires a change in payments habits but tends to reveal the mileage driven and the fee amount paid for those miles.

    Task Force Conclusions: The task force values the goal of visibility more than the goal of ease of payment.

11. **Enforcement.** The ability to ensure payment of a mileage-based fee varies depending upon configuration. For context, approximately 200 distributors pay the current gas tax in Oregon, resulting in very low enforcement costs and low tax evasion. By contrast, payment of a mileage-based fee depends upon payment by several million owner/operators of passenger vehicles thus dramatically increasing enforcement costs and the potential for evasion. Payment of the mileage-based fee at the gasoline pump would generally facilitate few challenges to enforcement because enforcement of the mileage-based fee could be integrated with payment for fuel. [Note: this would not be the case if the incidence of gas tax shifts to the service stations from the gasoline distributors. *(See Appendix S for Analysis of Shifting Taxation of Gasoline to the Pump.)]* Non-pump payment could be aided through assessment of traffic fines for non-payment or use of the private collection system (e.g. debt collection agencies, private judgments and property levies.)

    Task Force Conclusions: An effective enforcement program could be developed through assessment of traffic fines and access to the private collection system (e.g. debt collection agencies, private judgments and property levies.)

12. **Rate Structure: Base Rate Overlays.** For every scenario the base-rate for the mileage-based fee can be adjusted to be variable to take into account factors other than raising revenue. *(See Appendix T for a description of the alternatives for base rate adjustments.)*

(a) **Congestion Pricing**. Allows for variable pricing above the base-rate for travel during peak hours in congested areas sufficient to divert some travel to other transportation modes or to other times of day. It is unlikely that congestion pricing can be implemented on a revenue-neutral basis because the probable allocation policy for congestion pricing dollars will be to spend these dollars on the roads subject to the variable pricing.

(b) **Fuel Efficiency**. Would allow for a base rate adjustment depending upon the fuel efficiency of the passenger vehicle. Could be applied across the entire statewide fleet on a revenue neutral basis. Could be applied to owner/operators of passenger vehicles with fuel efficiency below a set EPA rating per gallon.

(c) **Geography**. Would allow for a base rate adjustment depending upon the geographic location in which the passenger vehicle is registered.

Task Force Conclusions: A mileage-based fee should not be complicated with rate adjustments for factors other than generation of revenue. An exception should be made for variable pricing of congested areas which would enable efficient system management and provide revenue for modernization. Other overlays suggested by commentators are considered to be outside the charge of the task force.

13. **Rate Structure: Base Rate Adjustments.** The base rate for a mileage-based fee, on a revenue neutral basis compared to gas tax revenues, would be 1.25 cents per mile in 2002 dollars. [Note: the 1.25 cents per mile figure is calculated by dividing the current gas tax of 24 cents per gallon by the 2002 average vehicle's fuel efficiency of 19.2 miles per gallon.]

(a) **Inflation**. Would allow for a periodic automatic adjustment in the base rate for road cost increases due to inflation.

(b) **Recovery of Administrative Costs and Capital Expenditures**. At the base rate of 1.25 cents mile, a mileage-based fee would raise insufficient

revenue to recover both the higher costs of administration and capitalized expenses and maintain the current level of revenues available for roads under the gas tax.

Task Force Conclusions: Automatic road costs adjustment to the base rate of a mileage-based fee is outside the scope of the task force work. The base rate for a mileage-based fee should be sufficiently high enough to allow for the necessary increased administrative cost of a new revenue source, including recovery of capitalized expenditures, and maintenance of the current level of revenues available for roads under the gas tax.

D. Recommended Mileage Based Fee Scenario – VMT Fee Collected By Private Data & Fee Collection Center.

1. **Preferences for a Mileage-Based Fee.** The task force expressed the following preferences for the design configuration of a mileage-based fee that is a "vehicle miles traveled fee (VMT fee)."

   - Private Data Collection and Fee Retrieval.
   - Use of GPS Devices or AVI/odometer Linked Devices for Gathering of Mileage Driven Data.
   - Upload of Data to Center via Radio Frequency.
   - During Phase In, Credit for Gas Tax Paid Against income Taxes
   - Enforcement by Traffic Fines and Private Collection
   - During Phase In, VMT Fee Applied to New Vehicles Containing Mandated Technology
   - Privacy Protected by Design limitation and Legal Prohibition
   - Gas Tax Continued for Resident Non-VMT Fee Payers and Non-Residents Until Interstate Compact Adopted
   - Base Rate Adjustment Allowed Only for Variable Pricing in Congested Areas
   - Base Rate Designed as Revenue Neutral Except for Recovery of Administrative Costs and Amortized Capital Expenditures

2. **Comparison of Fuel Tax Payments with VMT Fee.** Under a flat VMT fee rate, containing no overlay rate adjustments, some vehicles would be advantaged in comparison with gas tax payments and others would be disadvantaged. Typically,

passenger vehicles obtaining higher than average mileage per gallon would be disadvantaged in relation to their gas tax payments. Operators of high miles-per-gallon (mpg) vehicles would pay more annually under a VMT fee than under the gas tax. On the other hand, less fuel efficient passenger vehicles would be advantaged under a VMT fee. Operators of low mpg vehicles would pay less annually under a VMT fee than under the gas tax. (See Appendix U for Comparison of Fuel Tax and VMT Fee Payments for selected vehicles.)

3. **Preferred Scenario:** The task force tentatively recommends the following configuration for a mileage-based fee.

Vehicle Miles Traveled Fee
Private Data & Fee Collection Center
(Scenario One)

Description

Mileage data is uploaded to data & fee collection center for fee calculation and monthly billings to owners of passenger vehicles using Oregon's road system. User receives an income tax credit for gas tax paid.

Data Collection Technology

Global Positioning System vs. Odometer Linkage. The task force prefers a policy that encourages or mandates installation of technology that facilitates electronic collection of VMT data for purposes of straight application of a fee amount per mile. In this respect, the task force chose two options for computing mileage driven. One option is a "simple" Global Positioning System (GPS). The other option is an Automatic Vehicle Identification System (AVI) linked to an odometer. *[Note: This option is research dependent.]*

Data Upload Technology

Upload to Center. The VMT data would be uploaded by radio frequency to a gasoline service station and forwarded to a data and fee collection center. This recommendation depends upon cost and interoperability with other parts of the preferred VMT fee system. *[Note: This option is research dependent.]*

Data Collection and Fee Retrieval

Private Center. The task force prefers a centralized method of data collection and fee retrieval that would be managed primarily by the private sector. The billing system would operate much like a privately owned public utility. The private entity would remit the fees collected to the appropriate taxing authority net of an administrative charge and costs.

Phasing Into Current Oregon Road Finance System (Credit for Gas Tax Paid by VMT Taxpayers).

Gas Taxes Refunded as Income Tax Credit. Passenger vehicle owners who pay a VMT fee would receive a credit for gas taxes paid for the same period. These taxpayers would receive a credit for actual gas tax payments against income taxes owed.

Enforcement

Private Collection and Traffic Fines. A centralized data collection center would have the authority to collect non-payment of fees through the private collection system (e.g. civil judgments, debt collection agencies, liens etc). Traffic fines would also be assessed for operation of a motor vehicle without payment of VMT fees. Suspension of vehicle registration would occur upon accumulation of fines above a threshold amount. *[Note: This option is legal research dependent.]*

Retrofitting/ Phase in Application

Phase In of Technology Acquisition (Newly Purchased Vehicles)/ No Mandated Retrofitting. If GPS technology is ultimately selected for data collection, the VMT fee would be phased in for vehicles containing a simple GPS device and associated data transmission technology. GPS and data collection technology would be required for newly purchased vehicles only. The State of Oregon could join a consortium of states having an interest in mileage-based fees to negotiate with automobile manufacturers for installation of necessary technology into new passenger vehicles after a target date. Owners of older passenger vehicles would be allowed the option to retrofit the necessary technology and be charged the VMT fee. If the AVI/odometer link technology is ultimately selected, this technology would not only be required for newly purchased vehicles but a multi-year retrofitting of older vehicles would be feasible.

Privacy Protections

Design Limitation. If GPS technology is ultimately selected for data collection, the state would be required to build into the data collection system a design limitation that prevents the state from accessing a GPS device to locate passenger vehicles in real time or to determine detailed travel history of vehicle other than to upload summary data. If the AVI/odometer link technology is ultimately selected, there will be no need for a design limitation because this technology has no ability to track vehicle location either concurrently with use or retrospectively (other than on specific facilities).

Legal Prohibition. If GPS technology is ultimately selected for data collection, A civil and/or criminal law statute would prohibit anyone connected with a state agency from accessing a GPS device to locate passenger vehicles in real time or to determine detailed travel history of vehicle other than to upload summary data. If the AVI/odometer link technology is ultimately selected, there will be no need for a legal prohibition because this technology has no ability to track vehicle location either concurrently with use or retrospectively.

Non-resident Fee Payments

Defer Resolution of Non-Resident Road Taxes & Continue Fuel Tax. Wait to resolve non-resident tax issues until after VMT fee is fully phased in. Interstate compact is likely to resolve taxation issues pertaining to interstate travel before VMT Fee is fully phased in. Continue Gas Tax indefinitely.

Setting Rate Including Administrative Cost Recovery

Revenue Neutrality Plus Cost Recovery. The VMT fee rate would be based on three factors. One, a rate of 1.25 cents per mile (e.g. based on the 24 cents gas tax divided by the current statewide passenger vehicle fleet average of 19.2 miles per gallon). Two, an amount per mile for the cost recovery of fee collection overhead. Three, an amount per mile for the cost recovery of amortized capital expenditures related to implementation of the new fee system.

Rate Adjustment Overlay

Congestion Pricing. The VMT fee rate would only be adjusted for congestion pricing as applied by area. [Note: implementation of area pricing will be deferred until all Oregon vehicles are properly equipped with necessary technology.]

VI. Targeted Revenue Source Alternatives to the Current System of Taxing Highway Use through Motor Vehicle Fuel Taxes.

A. Congestion Pricing.

1. **Philosophical Basis**. Economists several years ago identified congestion pricing (a.k.a. "value" or "peak period" pricing) as the best way to spread out usage of congested roadways and pay for capacity improvements to road systems. Despite advantages, roadways using variable pricing are a rarity in the United States, although more common than a decade ago. There are multiple reasons for failure to adopt congestion pricing in the past including high infrastructure cost, inadequate technology (until recently) and lack of public support.

   Task Force Conclusions: Congestion pricing is appropriate for certain Oregon urban areas. Cost and technology are no longer impediments. Public support may be forthcoming after explanation of benefits.

2. **Application to a Mileage-Based Fee**. Congestion pricing can be implemented either as a rate adjustment to a general system-wide road funding mechanism or as a "stand alone" mechanism.

   Task Force Conclusion: Congestion pricing can be implemented at minimal expense to government, private sector and motorists as part of a rate adjustment to a mileage-based fee. Alternatively, a "stand alone" pricing mechanism is not dependent upon connection to a mileage-based fee.

3. **Manner of Pricing**. Congestion pricing can be implemented as a rate adjustment to a system-wide road charging mechanism, or as a separate, "stand alone" charge for a specific facility. The manner in which congestion pricing is implemented depends upon the type of technology selected to put in place, both in the vehicle and along the road, and the type of pricing preferred by policy-makers. These factors heavily influence one another.

   Different types of technologies have different capabilities and different costs. For example, AVI technologies are inexpensive, but can only be used to identify vehicle use at points where the highway is equipped with special "reader" devices. This means congestion pricing systems based upon AVI technology will be

specific to a particular facility (e.g. freeway segment, bridge, on-ramp, etc.) AVI devices cannot determine statewide VMT. GPS-based technologies are currently expensive but can be used to determine vehicle location and distance traveled by time of day. At present, GPS-based systems can be used to calculate in-state VMT, and VMT during peak hours in pre-selected congested areas. In the future, GPS-based systems may be able to calculate VMT during peak hours on specific facilities.

4. **Types of Pricing Strategies**. There are four basic ways to vary pricing.

    - "Area pricing" involves charging within a defined geography without specification or discrimination for particular roadway or street as all routes are priced the same per mile traveled during the same periods. This type of pricing is dependent upon GPS based systems.

    - "Cordon pricing" involves charging for access to a particular location when crossing a boundary line. This type of pricing can be implemented using either GPS based systems, AVI devices, or license plate recognition systems.

    - "Facility pricing" involves charging for access to a particular facility (e.g. HOT lane or bridge) and pricing can vary dynamically with actual roadway conditions. This type of pricing is generally dependent upon AVI devices for implementation.

    - "Network pricing" involves charging variable tolls for a whole freeway system in an urban area with the potential for price differentiation depending upon the nature of each freeway. This type of pricing requires an extensive application of AVI technologies.

    Task Force Conclusion: "Area pricing" is the most viable strategy from an operational and cost effectiveness standpoint because of the configuration of local geography and current road system and the land use polices of Oregon. Nevertheless, if the task force ultimately selects AVI/odometer linkage technology, rather than GPS, as the

base technology for a VMT fee, area pricing would not be feasible. The AVI device would allow for "facility pricing" in a time tested manner common throughout the world.

5. **Pricing Technology**. Choice of technology determines the type of congestion pricing that can be implemented. For example, a "complex" GPS based system enables peak hour pricing by specific highway or street segment thus having the flexibility for implementation of any of the four basic pricing scenarios. On the other hand, a "simple" GPS based system will allow implementation of peak hour pricing only by area and covers primary routes and side roads and streets equally. An AVI based system is more limited and capital intensive because hardware must be installed along each road priced, but AVI technology still permits facility pricing and network pricing through mechanisms such as "freeway" pricing, "queue-jumping" at on-ramps, bridge pricing and spot tolling – all by time of day.

   Task Force Conclusion: A "simple" GPS based VMT fee system would allow effective congestion pricing through peak hour pricing by area. Alternatively, an AVI based VMT fee would allow effective congestion pricing for particular facilities but not for a defined area.

6. **Phasing In Congestion Pricing.** The Oregon Department of Justice has advised the task force that there are constitutional impediments to applying congestion pricing to only a portion of the passenger vehicles using a priced roadway.

   Task Force Conclusion: Congestion pricing could not be applied in Oregon under "area pricing" or "cordon pricing" strategies until after the preferred scenario for a VMT fee is fully phased in. "Facility pricing" could be implemented during a phase in period without legal impediment.

7. **Allocation of Congestion Pricing Funds**. There are four basic options for allocation of funds generated from congestion pricing.

   - Allocate congestion pricing revenue to Highway Fund.

- Allocate congestion pricing revenue according to the jurisdictions responsible for modernizing the particular roadways generating the revenue.
- Earmark congestion pricing revenue for a particular roadway.
- Earmark congestion pricing revenue by categories of roadways generating the revenue.

Task Force Conclusion: All funds generated from congestion pricing within a specific area should be allocated to the modernization of the roads within the area based on VMT data by jurisdiction. Alternatively, all funds generated from a particular facility should be allocated to the modernization of the particular corridor parallel and including the facility.

8. Congestion Pricing Scenario Recommended

(a) **Preferences for Congested Pricing**. The task force expressed the following preferences for the design configuration of a congestion pricing (a.k.a. "value" or "peak period" pricing) system.

- Adopted as a Rate Adjustment to a VMT Fee or, alternatively, as a "Stand Alone" Pricing Infrastructure.
- Data Collected Through GPS Device or, alternatively, Through Application of an AVI Device in a "Stand Alone" Principally Electronic Tolling System.
- Area Pricing (Deferred Until VMT Fee Fully Phased In) or Facility Pricing.
- Generated Funds Allocated by Jurisdiction Based on VMT and dedicated to modernization or, for Facility Pricing, Funds Generated from a Particular Roadway Applied to the Modernization of that Particular Corridor.

(See Appendix V for the list of options considered by the Road User Fee Task Force in configuring the congestion pricing scenario.)

(b) **Preferred Scenario:** The task force tentatively recommends the following configuration for congestion pricing.

Congestion Pricing
(a.k.a. "Value" or "Peak Period" Pricing

Area Pricing

Rate Adjustment to Mileage-Based Fee. Congestion pricing integrated with a mileage-based fee would be implemented as a base rate adjustment. Owing to legal limitations, this methodology for congestion pricing cannot be implemented until the mileage-based fee is applicable to all passenger vehicles that will travel in the congested area.

"Simple" GPS Based System. A "simple" GPS based system allows effective congestion pricing through peak hour pricing by area, pricing primary routes and side roads and streets equally. Implementation of this option would not occur for 20+ years because of the lengthy phase in period for GPS devices to be installed in every passenger vehicle that will travel in the congested area.

Area Pricing (Deferred). Area pricing would involve charging variable rates within a defined geography without specification or discrimination for a particular roadway or street as all routes are priced the same per mile driven within the area during the same periods. Area pricing would require installation of the "simple" GPS device in participating vehicles. Area pricing would be deferred to a time when "simple" GPS devices are ubiquitous in Oregon passenger vehicles.

Allocation By Category. All funds generated from congestion pricing within a defined area would be allocated to the modernization of state, city or county roadways within the defined area by appropriate jurisdiction based on VMT data for each category of roadways.

Facility Pricing
(An Alternative)

"Stand Alone" Congestion Pricing. Congestion pricing would be implemented independently of a mileage-based fee. There would be no local adjustment to the statewide mileage-based fee.

AVI Based System. An AVI based system would facilitate a "stand alone" principally electronic tolling system operating independently of a mileage-

based fee. This would allow peak hour pricing of specific roadways with a great amount of configuration flexibility depending on capital cost limitations.

Facility Pricing (Concurrent with a VMT fee Phase In). While not comprehensive, facility pricing on a "stand alone" basis is the only pricing strategy that can be implemented in conjunction with a VMT fee phase in. Congestion pricing in this manner could be applied to specific roadways and bridges or to HOT lanes or queue-jumping at ramp meters.

Allocation by Roadway. All funds generated from congestion pricing of a particular roadway would be allocated for the modernization of that roadway (or parallel roadways within the same corridor).

B. New Facility Tolling. While tolling roads and bridges is common practice in other states and nations in the industrialized world, Oregon has no toll roads and only two toll bridges. Research shows that Oregonians support tolling, if at all, only on new projects providing some transportation advantage not currently existing. Experience elsewhere indicates the most likely candidate projects for tolling from an economic perspective are large bridges and highly traveled limited access highways. Oregon has a few potential projects of this magnitude.

Task Force Conclusions: Any new roads, bridges or extended lanes should be paid for, at least in part, through tolling, when practicable. Tolling will make newer, and often sorely needed, large projects more likely to be built and likely on shorter timeframes.

C. Studded Tire Use Permit.

1. **Findings of Fact.** In keeping with the philosophy to charge user fees to pay for road needs, the task force explored the damage caused by studded tires to road surfaces in the state. Drawing extensively from the ODOT Studded Tire Report of December 2000, the task force made the following findings.

   - **Effect Upon Cost Allocation**. Currently, under Oregon's cost allocation policy, the cost of studded tire damage

repair is spread across all passenger vehicles, whether or not they use studded tires.

- **Broad Spectrum of Damage**. Studded tire usage tends to reduce the useful life of road surfaces but the damage is not uniform across the state. The ODOT Studded Tire Report (2000) indicates that studded tire damage is distributed across the five ODOT regions in the following percentages.

Region One (Portland Metro)	47%
Region Two (Willamette Valley/N. Coast)	21%
Region Three (Southwest)	0 %
Region Four (Central)	31%
Region Five (Eastern)	1%

2. **Studded Tire Use Permit**. Loosely modeled after the Sno-Park Permit Program, the task force is developing a recommendation for a Studded Tire Use Permit Program. Each operator of a motor vehicle using studded tires in Oregon would be required to obtain a permit based on where the vehicle is registered. Permit fees would vary by county. *(See Appendix W for legislative concept.)*

VII. Future Development

A. Pilot Program for Mileage-Based Fee. House Bill 3946 requires the Road User Fee Task Force to make recommendations for a pilot program to test alternatives to the current system of taxing highway use through motor vehicle fuel taxes.

1. **Status.** The task force is developing a pilot program for the preferred scenarios for a mileage-based fee and congestion pricing.

2. **Description of Pilot Program.** The pilot program will consist of a two step process that supports potential adoption of a vehicle miles traveled fee (VMT fee) for Oregon that contains a time-of-day pricing component. The first step will involve small scale testing of GPS or AVI/odometer linked technology and related technology for a VMT fee. The second step will involve using the same technology for large scale testing of the behavioral elements of a time-of-day component to a VMT fee, as well as the VMT fee.

3. **Timeline for Pilot Program.** House Bill 3946 requires ODOT to commence the pilot program no later than July 1, 2003. The task force has already made recommendations to ODOT on the design of the pilot program. *(See Appendix X for the Pilot Program Recommendations.)*

M E M O R A N D U M

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1700 | FAX 503 797 1794

METRO

DRAFT

DATE: September 24, 2002

TO: JPACT

FROM: Andrew Cotugno

RE: Federal Reauthorization Project Priorities

At the September JPACT meeting, there was general agreement on a set of principles for selecting key projects as the region's priorities for reauthorization earmarks, as follows:

1. The region should have a relatively short list of priorities.
2. As a target, the region should seek $XXX over the six-year period in New Start Funding.
3. As a target, the region should seek $100 million in various highway earmark categories.
4. All projects must be consistent with the RTP Priority System.
5. Project requests should support and reinforce the land use plans of the region.
6. All project requests must be able to use earmarked funds within the six-year timeframe of the reauthorization bill.
7. The jurisdiction requesting a project earmark must be prepared to deliver an appropriate project within the earmarked funding amount regardless of the level of funding earmarked. Partial earmarks must be supplemented with alternate funding sources or scaled to an appropriate sized project.
8. There must be a strong base of support for the projects from governments, community and business organizations.
9. Members of the delegation must be willing to pursue the project earmark.
10. The overall regional list must be regionally balanced.
11. The adopted regional list will be described as the priorities of the region. Local requests outside of the adopted regional list will be strictly the priority of that jurisdiction.

Based upon these criteria, a preliminary priority list for consideration is as follows:

A. Regional New Start Priorities
   1. Continued authorization and funding to construct the South Corridor project.
   2. Continued authorization and funding to complete the Interstate MAX project.
   3. Continued authorization and funding to complete the Wilsonville-to-Beaverton Commuter Rail project.

4. Willamette Shoreline Streetcar – authorization for Preliminary Engineering

B. Regional Highway Priorities
   1. I-5/Delta Park to Lombard
   2. Highway 217 – TV Highway to Sunset (Westside Corridor – Final Phase)
   3. Sunrise Corridor – Industrial Connector: I-205 to 135th Ave.

C. Regional Livability Priorities (possible candidates)
   1. Boeckman Road (Wilsonville)
   2. Lake Road (Milwaukie)
   3. Gresham Civic Neighborhood LRT Station
   4. Kenton Feed-and-Seed
   5. Rockwood Town Center
   6. Bancroft/North Macadam Access
   7. Willamette River Bridge Rehab
   8. Bus Replacements
   9. Regional Culvert Retrofit – Phase 1
   10. Regional Trail Program – Next Phase

D. The Regional also supports Clark County, Washington's request for Alternatives Analysis/PE funding for the Clark County LRT Loop.

M E M O R A N D U M

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1700 | FAX 503 797 1794

METRO

DATE: October 9, 2002

TO: JPACT

FROM: Andrew Cotugno

RE: Federal Reauthorization Project Priorities

At the September JPACT meeting, there was general agreement on a set of principles for selecting key projects as the region's priorities for reauthorization earmarks, as follows:

1. The region should have a relatively short list of priorities.
2. As a target, the region should seek $XXX over the six-year period in New Start Funding.
3. As a target, the region should seek $100 million in various highway earmark categories.
4. All projects must be consistent with the RTP Priority System.
5. Project requests should support and reinforce the land use plans of the region.
6. All project requests must be able to use earmarked funds within the six-year timeframe of the reauthorization bill.
7. The jurisdiction requesting a project earmark must be prepared to deliver an appropriate project within the earmarked funding amount regardless of the level of funding earmarked. Partial earmarks must be supplemented with alternate funding sources or scaled to an appropriate sized project.
8. There must be a strong base of support for the projects from governments, community and business organizations.
9. Members of the delegation must be willing to pursue the project earmark.
10. The overall regional list must be regionally balanced.
11. The adopted regional list will be described as the priorities of the region. Local requests outside of the adopted regional list will be strictly the priority of that jurisdiction.

Based upon these criteria, a preliminary priority list for consideration is as follows:

A. Regional New Start Priorities
   1. Continued authorization and funding to construct the South Corridor project.
   2. Continued authorization and funding to complete the Interstate MAX project.
   3. Continued authorization and funding to complete the Wilsonville-to-Beaverton Commuter Rail project.
   4. Willamette Shoreline Streetcar – authorization for Preliminary Engineering

B. Regional Highway Priorities

1. **I-5; Delta Park to Lombard**
Widen to three lanes in the southbound direction. Widen the northbound section to add shoulder width. Project will widen the Columbia Slough Bridge to allow for a minimum standard median and shoulder widths in both directions to accommodate an acceleration lane for the Victory Boulevard southbound on-ramp.

EIS is in process and is scheduled for completion in 2003. Construction cost is expected to be $41 million.

2. **Highway 217 – TV Highway to Sunset** (Westside Corridor – Final Phase)
This project will add northbound travel lanes and improve ramps at US 26, Walker Road and Canyon Road. The current substandard ramp designs and locations cause cueing and weaving problems, leading to congestion on the primary transportation and freight route in the western metropolitan region.

The project is the final phase of the Westside Corridor project. The FEIS for the corridor was completed in 1991. The project is expected to cost $33.6 million.

3. **Sunrise Corridor – Industrial Connector: I-205 to 135th Ave.**
The Sunrise Corridor is a proposed new Highway improvement of Oregon Highway 212/224, between I-205 and US-26. The project would construct four new lanes paralleling the existing route, while retaining the existing facility as an arterial street. Phase 1 project cost estimate is $180 million (source: YR 2000 Regional Transportation Plan)

A Sunrise Corridor draft final Environmental Impact Statement (EIS) was prepared in 1998. However, a Supplementary DEIS is needed to update the design, update the environmental information and determine the construction stage of phase 1. In addition, Metro will be completing the land use planning elements for phase 2 to include finalizing the Sunrise Corridor exception findings and conducting the Damascus concept plan study (if Damascus is added to the UGB).

The Clackamas County Board of Commissioners in 1996 approved the preferred alternative, which consists of the central alignment within the Lawnfield/Mather Road area and the southern alignment around Damascus.

This TEA-21 reauthorization request is for $40 million. $10 million for preliminary engineering (final design) and $30 million for right of way.

The goal is to start construction by year 2008. To accomplish goal the following steps have to be completed.

- As mentioned, the EIS phase is schedule to start winter/spring 2003. JPACT and the Metro Council as part of the Metropolitan Transportation Improvement Program have approved Surface Transportation Program (STP) funds for the supplementary and final EIS. It is expected that this phase will be completed by year 2006

- PE and right of way acquisition would start immediately after completion. Funding for this phase would come from the TEA-21 reauthorization request and from County's Urban Renewal District. Clackamas County will be requesting at least $100 million from the Metro's Transportation Investment Task Force and the 2003 state legislature for construction of phase 1 (I-205 to 172nd).

4. **I-405 Loop; Phase II Preliminary Engineering.**

C. Regional Livability and Job Access Priorities (possible candidates)

1. **Boeckman Road** (Wilsonville)
The Boeckman Road-Tooze Road Connection Project resolves several serious problems for the city and the metro region. Boeckman Road is a Metro designated Regional Street that currently dead-ends about one mile short of Tooze Road, largely due to geographical issues. By linking these two roads with a three-lane, east/west connector, a missing but critical multi-modal link to the proposed Villebois mixed-use urban village on the former Dammasch Hospital site, and to industrial and employment areas, the Commuter Rail Station and Transit Center, Interstate 5 and the Town Center will be built. This project would additionally connect unincorporated far west Clackamas County with services and jobs in Wilsonville. Phase 1 of Villebois will begin summer 2003 and Commuter Rail in 2005. The region endorsed OTIA funds, committed future MTIP funds and committed to seek other sources of funds for this project. Wilsonville secured $2 million from OTIA I to begin PE and ROW acquisition in 2002. Final design and environmental work will be completed by Spring 2004. Total cost of the project is $15.7 million.

2. **Lake Road** (Milwaukie)
Reconstruction of arterial road linking the Milwaukie town center and the Clackamas regional center to include a center turn lane, bike lanes, sidewalks, improved storm drainage and lighting.

3. **Gresham Civic Neighborhood LRT Station**
The Gresham Civic Neighborhood LRT station will construct a station and plaza in the newly developing Gresham Civic neighborhood immediately west of the

Gresham City Hall station. The station and plaza will serve existing and future private sector investment in mixed-use development in the area. Project cost is $3.5 million.

4. **Kenton Feed-and-Seed**
Funding to spur transit oriented development around the historic Kenton business district and new light rail station. Projects will increase transit ridership on the Interstate light rail line and support the Kenton town center.

5. **Rockwood Town Center**

Burnside retrofit project 181st to 190th. Urban amenities added along street and light rail tracks. Add pedestrian crossings of light rail at 183rd and 184th. Improve existing crosswalks, add bike lanes and on-street parking, and widen sidewalks. Project cost is $4.5 million.

6. **Bancroft/North Macadam Access**
This program would provide street and intersection improvements to facilitate the North Macadam Development Plan and provide for transportation infrastructure for 10,000 jobs and 3,000 housing units. Total federal dollars requested is $10 million.

7. **Bus Replacements**

8. **Regional Culvert Retrofit**
With the designation of several salmon and steelhead as endangered under the federal Endangered Species Act, the Portland region must implement an action plan to address restoration of these endangered fish species. Metro recently completed an inventory of culverts on the regional road system that inhibit fish migration. A federal earmark for repair, retrofit or replacement of these culverts will enable cities and counties to enhance fish access to their native habitats, enhancing species survival and demonstrating compliance with federal regulations.

9. **Regional Trail Program**
A proposed system of 18 new multi-use paths across the region has been drafted. These projects are included and described in the Regional Transportation Plan and the Regional Trails Master Plan. The projects would create a network of paths throughout the region, integrated with the road system and each other, to serve bicycle and pedestrian trips in areas where vehicle access is not appropriate. These paths are popular with citizens and encourage use of bicycles and pedestrian modes by providing more direct and safe access to popular destinations. As Oregon state transportation trust fund revenues are not eligible to fund these projects, a federal earmark to begin PE and construction will greatly speed completion of the network of these multi-use paths.

10. **Burnside East and West**:
This project would include a boulevard/main street design for the Burnside Corridor from West 19th to East 14th to complement the Brewery Blocks redevelopment; access to the downtown and the burgeoning Central Eastside District. Total cost is $40 million federal/local dollars.

11. **Sauvie Island Bridge replacement**
Multnomah County has secured funds to start the PE and environmental work. That work will start in spring 2003. Total cost of the bridge replacement is $34 million.

12. **223rd Ave Railroad Under Crossing south of I-84**
The project currently has PE and ROW funded through the MTIP. Project is in preliminary engineering phase now with ROW acquisition to start mid-2003. Construction is estimated to cost $5.1 million.

13. **Columbia Intermodal Corridor**
Proposed earmark improvements would include widening of Columbia Boulevard (60th to 82nd), several intersection improvements to facilitate truck access to air cargo facilities and Portland International Airport, ITS and freight traffic management improvements on Columbia and Lombard, and ramp improvements on 82nd Avenue at Columbia and Killingsworth. Total project cost is $22.7 million. An additional earmark may be sought for the expansion of Ramsey and Barnes rail yards at a cost of $11 million.

D. The Regional also supports Clark County, Washington's request for Alternatives Analysis/PE funding for the Clark County LRT Loop.

M E M O R A N D U M

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1700 | FAX 503 797 1794

METRO

TPAC Recommended DRAFT

DATE: October 10, 2002

TO: Metro Council
MPAC

FROM JPACT

SUBJECT: ***Periodic Review of the Urban Growth Boundary***

The Joint Policy Advisory Committee on Transportation (JPACT) has reviewed key pieces of work and the Metro Executive Officer's recommendation on Periodic Review of the Urban Growth Boundary (UGB). In general, we support the conclusions and the recommendations and appreciate the magnitude of the effort and the quality and quantity of the information and debate that has occurred over the course of the last two years. However, there are a number of transportation system relationships that will warrant attention as the region continues to implement the 2040 Growth Concept. We offer the following comments:

Emphasis on Centers

JPACT supports the Executive Officer's recommendation to emphasize methods to further implement appropriate mixed-use development in centers. JPACT has worked with the Metro Council to ensure a primary focus of the next allocation of MTIP funds will be on centers. We continue to support that focus. The region should identify other opportunities to maximize investment in centers. In addition, JPACT supports development of performance objectives, together with tracking data, to monitor the rate of center-related development and to adjust either programs or expectations during future reviews of the UGB. That information should be complimented with transportation performance data, such as trip generation and mode splits within centers.

Industrial Lands

JPACT supports efforts underway to identify as much industrial land as possible in this Periodic Review effort. JPACT also generally supports the concept of a "regionally significant industrial land" 2040 designation. We also understand that the application of that designation is open to

ongoing discussion at this time. Our hope is that the designation preserves critical industrial lands brought into the UGB, plus, at a minimum, those that are critical to warehousing and distribution, and to transportation sensitive industrial areas, such as those tied to marine, rail, and air terminals or facilities.

In addition, post-UGB concept planning should consider all types of industrial land that are key to the region's economy. Again, warehouse, distribution, and terminal locations should be considered and identified.

Regional Transportation Plan (RTP)

This Periodic Review utilized information from the 2000 RTP. The RTP included assumptions for future growth outside the boundary and a limited number of system improvements, most significantly, the Sunrise Corridor. As concept planning occurs following Periodic Review, the RTP should be amended to include any new information to reflect the location and timing of UGB expansion, and the both the Priority and Financially Constrained system projects required to serve those expansions. However, as is the case with all RTP projects, priorities should be determined on a region-wide basis that considers needs both inside and outside the boundary.

New Urban Areas

Specifically related to the RTP projects, both the I-5/99W Connector and the Sunrise Corridor may require updating in the RTP based on the location, timing and phasing of UGB expansions in those areas.

Also regarding the Damascus/Sunrise area and north into Gresham, JPACT supports immediate concept area planning in order to bring land on line as soon as possible. Development in the area will hopefully include additional employment for both Clackamas County and the Gresham area. Any such development will require completion of the Foster/Powell corridor study to determine transportation improvements necessary to serve the area from the north; and a complete arterial/collector system to compliment the Sunrise Corridor in the Damascus area.

One area of concern we have are large scale additions of land that will affect the operations of I-205 and I-5 near the interchange of the two freeways in the Tualatin/Wilsonville area. It is our hope that if and when lands are brought in to the boundary in that area, that development is conditioned on completion of a concept plan that is conducted in conjunction with corridor planning of I-5 and I-205 in that vicinity. By combining the two efforts, actual land use designations, the mix of uses, and the type of industry and jobs can be evaluated in the context of the regional transportation system (the two freeways) and a regional economic development strategy.

North Valley Coordination

JPACT supports the Executive Officer's concept of coordinating with other north valley communities and counties to examine a broader range of mutual land use, transportation, economic, and environmental issues. We suggest that participants include representatives south

to Salem metropolitan area and north to include Columbia County in Oregon, and Clark County in Washington. As the RTP analysis showed, some of the greatest transportation and congestion issues are located at key gateways into the region, particularly I-5, both at the north and the south, and Highway 99W. However, we do caution that such efforts be specific to particular issues and expected outcomes clearly defined. The logistics of such discussions are difficult and therefore meetings should be appropriately focused.

State Laws and Regulations

JPACT has observed the Periodic Review process and supports efforts to build upon past experiences and to selectively suggest revisions to state land use planning laws that help the region better implement the 2040 Growth Concept. While we support such revisions (e.g., the Subregional Rule), we also understand that such changes should be done judiciously and still support the state's land use planning goals and objectives.

We thank you for this opportunity to comment and look forward to working with both the Metro Council and MPAC on these critical issues in the future. In particular, we hope to coordinate and gain your support as we pursue critical transportation funding over the next two to five years.

Executive Officer Recommendation

SUMMARY

The 2040 Growth Concept was envisioned to continue to evolve as the region matures and changes. Beyond implementing the Growth Concept, a vision needs to be developed for the region that looks out far beyond the 2040 planning horizon and the five-year review process. This broad vision should center on providing answers to questions regarding urban form, protection of farm land and natural resource areas while maintaining the characteristics that make this region unique. Answers to these questions require making difficult decisions that will be before the Metro Council this year and in succeeding years.

To continue to allow our region to evolve, I am recommending a combination of actions to address growth, protect neighborhoods and meet regional economic objectives. Some of these actions require further discussion and debate and therefore are recommended to be completed in an amendment to our Periodic Review Work Program. However, in keeping with the December 2002 deadline, I am recommending that the supply of land inside of the urban growth boundary (UGB) be increased by making strategic boundary expansions as well as making policy changes to increase the efficiency of providing employment and housing in regional and town centers. Boundary expansions are recommended to include approximately 17,000 acres in Damascus, Oregon City and limited areas around Wilsonville, along the western boundary of Tigard and Beaverton and in the Bethany area to accommodate approximately 38,000 dwelling units and 2,200 acres for employment.

Proposed policy changes to Metro's Functional Plan, which establishes specific requirements and tools to help local governments meet 2040 goals, are in response to the lifecycle changes of our region. These changes will enhance the effectiveness of the 2040 Growth Concept Plan. In addition, a policy change to the Metro Code is being proposed to immediately implement Ballot Measure 26-29 to ensure neighborhood stability.

The balance sheet for employment has purposely been left unbalanced. My recommendation accommodates approximately 39 percent (2,234 acres) of the unmet (5,684 acres) long-term need for employment land by expanding the boundary onto exception land and some surrounded resource lands. To meet the full need, the region seems to have no choice but to expand the boundary on to farmland. This is a dilemma because agriculture itself is a critical industry in the region. Should the region make this tradeoff?

Local governments in the region are not of the same mind about which direction to go to find large tracts of industrial land. Hillsboro wants to take Tualatin Valley farmland for high-tech sites. Gresham wants to take land east of Highway 26 that may adversely affect farming in east Multnomah County. Should the next wave of high-tech development happen near the Hillsboro high-tech cluster? Should it happen along the Washington County high-tech "crescent" that runs from Hillsboro southeast to Wilsonville? Should it happen in Gresham, which already has a foothold in the industry?

The region has no long-term economic development strategy that provides a basis for Metro to make these critical choices. Therefore, I recommend that the Council ask the Land Conservation and Development Commission to modify Metro's periodic review work program to add a new task that would accommodate the remainder of the unmet employment need after

the region sets forth a long-term economic development policy. Metro should answer these questions raised here and others, and, if necessary, then decide whether to convert farmland over to industrial use.

The work outlined in this recommendation will complete Task 2 of the Periodic Review work program – determining the 20-year land supply need. In addition to completing Task 2 by the December 20, 2002 deadline I am recommending that the work program be amended to include several tasks that include implementation of a regional Goal 5 program for natural resource protection, application of the subregional rule to address housing and employment needs in specific areas of the region and the designation of urban reserves.

Although the size of the proposed boundary expansion is large relative to previous expansions, there are other factors to consider than just the number of acres. All of the areas, and particularly those on the east side of the region, contain sizable natural resource areas. These areas have natural features such as the buttes and wildlife habitat that are high priorities for protection. Protection of these resource areas should be incorporated into the concepts for how these lands will be developed into urban areas. By including them inside the boundary, the size of the expansion increases. In addition, strategic expansions in key areas are important for town and regional center development.

To preserve important natural resource areas we need a comprehensive greenspaces strategy. To implement this vision I want to refer a Greenspaces II bond measure to voters for protection of natural areas both inside and outside of the existing boundary and for urban reserve areas to finish the work we have started through the 1995 Bond Measure. This bond measure will begin to address the needs of the region for the long term and will be designed to acquire land to increase the connections between habitat areas and protect habitat diversity. Some of the most critical habitat areas may be located outside of the boundary and expansion areas. Key stream corridors connecting regional anchor sites need to be protected to provide links to the rural landscape.

To provide a blueprint for defining the 50-year urban form of the region we need to study more than 75,000 acres (Alternative Analysis Area). In order to plan for the next century we may need to study as much as 100,000 acres. It took us 150 years for the region to develop to this point and because of the nature of population growth that magnitude of change will come quicker than 150 years into the future. We should focus our planning by looking from outside the urban growth boundary inward rather than incrementally expanding the boundary at the edges. By continuing this work, questions pertaining to urban form, employment, productivity of agricultural lands and protection of natural resources can be discussed more fully with the cities and counties in the metro region and the northern Willamette Valley. I also am directing staff to begin drafting a work plan to implement a more aggressive strategy to enhance regional and town centers. Regional and town centers (such as Beaverton, Washington Square and Lake Oswego) are the cornerstones of the 2040 Growth Concept because they define communities and provide retail services and jobs.

State-Mandated Requirements

State law found in ORS 197.296 requires that Metro periodically update its boundary by computing a capacity analysis to ensure that a 20-year supply of land for housing exists. This review must be completed at least every five years. This task includes the comparison of the inventory of buildable lands for housing within the boundary and the demand for dwelling units. This statute provides a framework for how much and where we grow as a region. ORS 197.299

requires Metro to implement necessary boundary amendments or take action to increase the capacity of the existing urban area within two years of identifying a residential land need.

Unlike the residential land assessment, where Metro is required to maintain a 20-year land supply and has a limited time to fulfill any shortfall, we only need to provide a long-term supply of employment land. My recommendation will address provision of a long-term land supply for employment needs for the region.

The capacity inside the boundary has been reviewed several times during the last five years. The most recent boundary expansion occurred in 1998. A portion of that decision was appealed and returned to the Metro Council for reconsideration. As a result, 934 acres were removed from the urban area; that shortfall is added to our current analysis.

In reviewing the current capacity inside the boundary, a number of factors and assumptions are made pertaining to the amount of growth we capture within our region through redevelopment and infill. Policy changes can be used to justify or substantiate changes in these Urban Growth Report factors. The future demand for dwelling units is obtained from the Regional Economic and Population Forecast and is balanced against the available supply of land according to current zoning.

The shortfall in capacity within the boundary can be rectified by expanding the boundary by the number of acres necessary to meet employment or housing needs, creating additional capacity inside the boundary, by adopting additional regulations or measures, or combining an expansion of the boundary and policy changes to meet the shortfall. Goal 14, Factor 4 requires consideration of the maximum efficiency of land located within the boundary. Goal 2, Exceptions (OAR 660-004-0010(c)(B)(ii)) requires that Metro demonstrate that the existing boundary cannot reasonably accommodate the need before expanding the boundary. Policy changes could take the form of upzoning, minimum floor area ratio requirements or other regulations or incentives that increase efficiency of land uses located within the boundary. In order to take credit for such policy measures to increase the capacity of the existing urban growth boundary, Metro must show the measures will demonstrably increase the likelihood that the expected development will occur (ORS 197.296(6)(b)).

ORS 197.301 requires that Metro develop performance measures to evaluate how the region is performing and report these results to the Department of Land Conservation and Development every two years. If after preparing a performance measure report, the actions taken from the previous periodic review process are not working, Metro is required to take corrective action. This requirement is an important part of determining whether the capacity inside the boundary is adequate and whether there are additional measures that could be taken to make up a shortfall in capacity for dwelling units or employment. To fulfill this state requirement, the Performance Measures report will be completed in the fall of 2002 (see appendix).

The Performance Measures Report distilled the 2040 growth concept policies into eight fundamental values.

2040 Fundamental Values:

- encourage the efficient use of land
- protect and restore the natural environment
- provide a balanced transportation system
- maintain separation between the Metro region and neighboring cities
- enable communities within Metro to preserve their physical sense of place

- ensure diverse housing options for all residents
- create a vibrant place to live and work
- encourage a strong economy.

These fundamentals are useful as broad benchmarks to evaluate whether policy changes are needed or are appropriate. The full report provides performance measures on 74 separate indicators. Each indicator is linked back to the eight fundamental values. This report will be part of Metro's Periodic Review submittal to the Department of Land Conservation and Development.

Technical Process

The technical analysis consists of three exercises to develop the data necessary to satisfy Goal 14 and complete an amendment to the UGB. The first is a land-accounting exercise – called the Urban Growth Report (UGR) – conducted for both housing and employment within the boundary. Because the residential and employment capacity analyses use different methods, they have been separated into two documents (see appendix: Urban Growth Report – Residential Land Needs, Urban Growth Report – Employment Land Needs). This supply-and-demand analysis is essential for determining how much land needs to be added to the boundary or how extensive policy changes would be needed to provide additional capacity. The second analysis is contained in the 2002 Alternative Analysis of available land located outside of the boundary to determine where urbanization is most suitable. The third analysis is an examination of Metro's current policies and how they apply to our capacity inside the boundary.

Urban Growth Reports

A balance sheet of the available land supply is contrasted with the expected demand for employment and housing. The Regional Economic and Population Forecast 2000-2030 estimates the demand for housing and employment during the 20-year period (see appendix). The forecast for the period from July 2000 to December 2022 anticipates a population increase of 506,056 people, which require 222,800 dwelling units.[1] This anticipated need for dwelling units assumes a capture rate of 68 percent for the four-county region located within the Metro UGB. This is the housing need for which Metro must provide a supply of buildable land. Metro may find that supply by expanding the urban growth boundary, using land inside the existing boundary more efficiently, or some combination of both. Whatever decision Metro makes, it must provide information from the recent past to support assumptions about how the capacity will accommodate the housing need. Metro can use information from a past period longer than five years if the data would provide a more accurate and reliable picture.

The 2002-2022 Urban Growth Report – Residential Land Need Analysis is a technical and policy document that outlines the methodology for estimating the current capacity inside the boundary, and compares this capacity with the forecasted growth for the next 20 years. The report uses the best available information about development capacity on land inside the boundary for comparison to forecast economic growth to estimate regional employment and housing needs (demand). The supply or inventory estimates in this report are to the maximum extent possible grounded in technical research and up-to-date geographic information system data.[2] The Vacant Land Analysis (see appendix – Map Atlas) has been produced to provide an illustration of the buildable land supply and the various deductions:

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[1] The 2000-2030 Regional Economic Forecast has been sized to fulfill the requirements for the Periodic Review period through 2022.

[2] Land Market Monitoring for Smart Growth, edited by Gerrit Knaap, contributions by Carol Hall and Wilber (Sonny) Condor.

- parks and environmental resources
- government owned lands
- churches and fraternal organizations
- major utility easements.

These deductions are made to the vacant land supply to produce buildable lands. Deductions also are made for schools and streets.

2002-2022 Urban Growth Report – Residential Land Need Analysis

Residential Urban Growth Report Summary	
Dwelling unit need	222,800 dwelling units
Capture rate assumed	68 percent
Refill rate assumed	28.5 percent
Dwelling unit shortfall	38,700 dwelling units

Once the buildable land supply has been determined, the zoning that local jurisdictions have adopted is applied to determine the number of dwelling units of capacity that are possible to be achieved. Two substantial adjustments have been made to account for units lost from underbuild and units that are gained from refill activity. Refill is the amount of development that occurs on land previously considered developed in our analysis consists of redevelopment and infill. The historic rate for refill activity has been 26.3 percent. This report assumes a rate of 28.5 percent due to increased emphasis on centers through the regional transportation funding process, greater implementation of 2040 through incentives and to account for accessory dwelling units. Since Metro requires that single-family development meet an 80 percent minimum density requirement the underbuild assumed in the Urban Growth Report is 20 percent. The net result is the calculation of the number of residential dwelling units needed within the 20-year period.

- The 2002-2022 Urban Growth Report – Residential Need Analysis produced a net need for 38,700 additional dwelling units.[3]

2002-2022 Urban Growth Report – Employment Land Need Analysis

Metro has evaluated the need for employment land in the region based on market conditions and a specialized analysis according to the firms that do business in our region. Metro reviewed the economic development elements of local comprehensive plans. These plan elements have helpful information about local conditions and contain policies and objectives for future economic growth and development. But most local plans do not have up-to-date information about sites and long-term supply.

Metro, with the aid of others, has obtained current information about both the supply of and the long-term need for employment land. The long-term need for employment land is determined differently from the need for residential land because employment is more size-dependent and location-dependent. As with the need for residential land, the need for employment land is highly dependent upon the "refill" (redevelopment and infill) rate, zoning, capture rate and other variables during the 20-year planning period.

[3] Assumes a 68 percent capture rate, 28.5 percent refill rate and a 20 percent underbuild factor.

Employment land needs (unlike the more generic nature of residential land needs), is business sector specific and is based on the importance of access, location of suppliers and the types of buildings required to produce a product or service. The 2002 Urban Growth Report – Employment Land Need analysis is derived from the 2000-2030 Regional Population and Economic Forecast. The forecast produces an employment projection by standard industrial classification. These employment needs are stratified by firm and parcel size and by six real estate types. The commercial building types are office, retail and medical/government uses. The industrial building types are warehouse and distribution, general industrial and tech/flex space.

The future land demand is estimated by aggregating similar types of employment into commercial and industrial categories for six building types. Because the forecast is computed for the five-county region, it must be reduced to account only for Metro's share of employment growth. The capture rate for employment is estimated to be an average of 75 percent based upon historical levels. The demand forecast anticipates approximately 500,000 additional jobs.

The number of parcels and acreage needed for industrial real estate purposes is determined for building type and size based on average regional employment densities.[4] Refill factors are computed for commercial and industrial development because not all development takes place on vacant land. A factor also is included for relocation of "vintage" industrial employers to new industrial areas. Vintage industrial relocation refers to industrial firms that abandon an existing facility for a larger more efficient facility. This provides opportunities for commercial development to take place on underused industrial land and helps fulfill commercial demand whereas industrial demand can only be satisfied on industrial land.

After computing the number of lots required and the total net acres by the six building type categories, this is compared to the available supply of land within the boundary. The 2002 Urban Growth Report – Employment Land Need report estimates there is a surplus of approximately 760 net acres of commercial land and a deficit of 5,684 net acres of industrial land (see appendix). Although a small surplus of commercial land is projected on a regional basis there is an anticipated shortfall of lots in the less than one-acre category. The shortage of industrial lots is projected across all lot sizes. More significant is the shortage of approximately 14 large lots (greater than 50 acres) because these lots are the most difficult to supply due to consolidation and topographic constraints[5].

Regional Industrial Land Study suggested a range for large-lot industrial need is due to several factors. First, Phase III of the Regional Industrial Land Study examined this same issue and concluded that the need for large-lot industrial was between six and 24 lots in the six-county region, depending upon serviceability, contamination issues, land banking and market availability.[6] Second, although this overall industrial land need analysis is based upon the period 2000-2002, three of the remaining six large lots were committed for development during this period.

In addition to this development, three other parcels are land banked for future expansion of the firms that currently own them and therefore may or may not be available for employment growth.

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[4] Industrial and commercial land demand and supply are segmented into: 1) under 1 acre, 1-5 acres, 5-10 acres, 10-25 acres, 25-50 acres, 50-100 acres and 100 plus acres.

[5] Different studies have produced a range of the need for large lots between 6 and 24 lots.

[6] The six counties include: Clark, Clackamas, Columbia, Multnomah, Washington and Yamhill.

Metro is required to maintain a long-term land supply for commercial and industrial uses.

- The 2002-2022 Urban Growth Report – Employment Land Need Analysis report estimates there is a surplus of 760 net acres of commercial land and a deficit of 5,684 net acres of industrial land
- The 2002 Alternative Analysis Study includes an identification and evaluation of approximately 3,600 acres that could potentially satisfy this shortfall.

2002 Alternatives Analysis Study
The 2002 Alternative Analysis Study will be used to address the shortfall of land needed for residential and employment purposes (see appendix). *The Residential and Employment Urban Growth Reports estimate that there will be a shortfall of approximately 38,700 dwelling units.*

The analysis of the land supply outside the boundary for possible expansion purposes is contained in the 2002 Alternatives Analysis Study. The Alternatives Analysis focuses on four different types of lands based upon the hierarchy established in ORS 197.298:

- exception lands located contiguous to the boundary
- limited exception areas that are not located contiguous to the boundary but are within 1 mile of the boundary to be considered in the event the intervening farm or forest land is added to the boundary
- resource lands within 1 mile of the boundary that may be deemed necessary to extend public services to exception lands
- resource lands that predominantly contain class 3 and 4 soils[7].

The hierarchy contained in the study corresponds to the law that defines which land should be included within the boundary in which order of priority. The 2002 Alternatives Analysis Study did not study Class I and II agricultural soils because they are the last resort under state law for inclusion in the boundary. That law, ORS 197.298(1), tells Metro to look first to "exception land" (land already affected by residential development) before considering farm or forest land. If Metro must consider farm or forest land, it must consider lower quality land before higher quality land. The Goal 14: Where to Satisfy the Region's 20-Year Urban Land Needs Through UGB Expansion flow chart in the appendix details this system for considering lands for boundary expansion. In all, approximately 75,000 acres are part of the 2002 Alternatives Analysis.

The 2002 Alternatives Analysis Study includes an analysis to determine how productive these lands are for urban development, the relative difficulty of extending public services to the lands and an assessment of the impacts on natural resources and agriculture. The analysis is not designed to produce a ranked order list of sites that are most suitable for urban development. Rather, the analysis is designed to weigh the various factors and allow decision-makers to weigh the policy choices among the lowest priority (exception lands) to expand the boundary.

Specifically, the study includes a productivity assessment of the dwelling units that could be developed on these sites, and an assessment of the number of acres of employment land that is suitable for jobs. A public facility feasibility study was performed to assess the ease of providing sewer, water, storm water and transportation to each site. The economic, social, energy and environmental consequences of the development of each area are weighed to determine which of the study areas have the least amount of impacts. Staff also performed an agricultural

[7] Note: resource land within 1 mile of the UGB that predominantly contains class I and class II soils were not authorized for study by the Metro Council because they are the lowest priority lands in the hierarchy established by ORS 197.298.

assessment of the lands within and around the study areas to quantify the impacts of urban development on farming. After completing this technical analysis, staff reviewed each site and compared its suitability to Metro policies to create a final determination of most, more or least suitable for urban development. Out of this analysis of 94 study areas, approximately 80 percent were found in the Alternatives Analysis to be most or more suitable for development based on these state-mandated criteria. The remainder of these areas fell within the least suitable category for development. These lands are detailed in the 2002 Alternative Analysis Study.

Applying Metro Policies to Alternative Analysis Land
An integral part of using the technical information contained in the Alternatives Analysis project is applying Metro's policies to the decision-making process. The Regional Framework Plan contains Metro's goals and objectives to guide how the agency formulates policy. It specifically states that these goals and objectives pertain to urban growth boundary amendment actions. These Regional Framework Plan goals and objectives have been condensed into eight 2040 fundamentals. These 2040 fundamentals have been identified as part of the Performance Measures project. To facilitate this process, groupings of the sites considered in the analysis have been weighed against the 2040 fundamentals to assess the consistency with Metro's policies. The recommended urban growth boundary expansion areas have been chosen based upon 2002 Alternative Analysis results and the policies contained in the 2040 fundamentals.

Overview of 2040 Policies
My staff has reviewed a variety of growth management policies contained in Metro Code and the Regional Framework Plan to determine which polices need to be updated to enhance the effectiveness of the 2040 Growth Concept and to further the region's goals. Some of these changes may not produce immediate results but will be an important component in the next five-year review cycle. The purpose of this analysis is to identify new policies that would support development in centers, possible conversion of outdated industrial areas and protection of key industrial areas.

The changes will support the maturation of the 2040 Growth Concept. A Leland/Parsons, Brinckerhoff consulting team to identify a strategy to overcome the impediments to fully achieving 2040 targets for centers, conducted an extensive centers research study.[8] The objectives of the policy changes are to maximize the performance of the existing regional and town centers and to create measures to determine how well these centers perform. These areas deserve increased emphasis because they have the best concentrations of transportation and other infrastructure improvements.

In addition, we have developed a better understanding of where employment locates and what lands are needed to support continued economic prosperity. Policy changes targeted at industrial areas are designed to preserve and protect these scarce land resources that are essential to the economic vitality of the region. These policy changes also are aimed at recognizing that there is an anticipated shortfall in the overall need for industrial lands. The 2002 Alternatives Analysis Study did not identify enough lands to fulfill the industrial land need shortfall of 5,684 acres.

> **Centers**: Metro policies pertaining to the development of regional and town centers should focus on the evolution of these design types by recognizing the appropriate role of local governments, the state and others by continuing to develop mechanisms to support their continued growth. These changes recognize that not all centers are the

[8] See appendix: "Metro Urban Centers: An Evaluation of the Density of Development."

same and that they are expected to mature at different rates. In order to facilitate the development of selected centers and recognize the maturation process of the region, the following amendments are proposed:

- refine the definition of a center, typical services it provides and its market area to create a better understanding of how it functions
- develop additional policies to strengthen center development
- develop tailored performance measures for each type of center
- develop an incentive program to assist in implementation.

Industrial Areas Policies: A variety of analyses have been conducted by Metro staff and other agencies to examine the demand and supply of employment land. Some of these analyses have indicated that there are areas of the region that could benefit from relaxing zoning restrictions that permit only industrial uses and allow a variety of uses that will better support market demands for redevelopment.

Conversely, because of the finite quantity of vacant lands available for industrial purposes and the fact that location decisions are often made due to transportation accessibility, these key areas should be preserved through increased zoning restrictions. Industrial land is not as substitutable as other types of employment land and therefore it is recommended that key industrial areas be protected from non-industrial uses such as, institutional uses, churches and, in some cases, commercial that does not support industrial uses. These uses encroach on the industrial viability of these areas and could be located in other more appropriate zones.

Just as protection should apply to some areas there are other areas that may appropriately be converted to other uses. Areas that may be appropriate for other uses are Willamette Cove, the Central Eastside Industrial District or areas within the 217 corridor.

Similarly, if boundary amendments are made for the specific purpose of providing industrial land, these same types of protection should apply. The following actions are recommended to efficiently use outdated industrial areas and protect key industrial areas:

- require conversion of selected out-dated industrial sanctuaries to allow mixed use development
- require protection for key industrial areas from encroachment of other non-residential development
- require preservation of industrial areas that are included in the boundary amendments so these areas do not get consumed for other purposes
- revise Title 4 – Industrial and Employment Area map as appropriate to reflect changes.

Housing and Employment Policies: Complete changes to Title 1 to reflect work already completed by local jurisdictions and prohibit down zoning that would reduce the estimated regional capacity for housing.

- Amend Title 1, Table 1 to reflect reported targets
- Prohibit local governments from reducing the employment capacity established in Title 1.

Map Updates: Complete a series of map changes. They include updates to the 2040 Growth Concept map and the Title 4 map.

Other Policies: Revise the Metro Code to reflect changes to emphasize increased coordination efforts with Clark County and refine our annexation process.

- Update coordination with Clark County section to reflect recommendations of the I-5 Trade Corridor Transportation Partnership
- Implement Ballot Measure 26-29.

A number of housekeeping changes are also included in these recommendations.

MANAGING THE URBAN GROWTH BOUNDARY

Which Lands need to be Brought Inside the Urban Growth Boundary?

The following study areas are recommended for inclusion within the boundary. These areas have been determined to be suitable for urban development according to the 2002 Alternatives Analysis Report. Based on infrastructure serviceability, impacts to natural resources and agriculture, and consistency with Metro policies, the recommended areas are rated as "most" or "more" suitable for urban development. These lands are complimentary and help carry out the 2040 plan. All of the 73,594 acres considered during the 2002 Alternative Analysis Study have some constraints to development and, to some degree, impacts on the natural systems or the agrarian economy. The recommended areas are summarized by geographic area and discussed in more detail in the 2002 Alternatives Analysis Report and Findings and the Proposed UGB Amendment Study Area Maps and Table located in the appendix.

Table 1. Proposed Urban Growth Boundary Expansion Areas

	Study Areas	Acres	Dwelling Units	Emp Acres
Damascus Area	10 (partial), 11,13, 14, 15, 16, 17, 18, 19 (partial)	9,388	18,029	1,474
Gresham Area	12, 13	3,483	7,808	360
Oregon City Area	24, 26, 28, (all partials), 32	1,395	2,912	219
Wilsonville Area	45, 49 (partial)	399	660	176
Sherwood Area	59 (partial)	85	313	0
Tigard/Beaverton/King City	61, 62, 63, 64, 65, 66, 67	1,758	5,264	5
Hillsboro Area	71, 82	241	930	0
Bethany Area	84, 85, 86	592	2,845	0
TOTAL		***17,341***	***38,761***	***2,234***

Damascus – Development of a new community in the Damascus area represents an opportunity to plan a complete community instead of just adding land at the edge. The area has been sized to include enough acreage to develop a fully functional community that has a natural edge defined by the Boring Lava Domes east of Telford Road. This community should be designed to provide an employment base for industrial and office development and commercial uses that will support the population within this market area. Sufficient transportation connections should be planned to support urban development. The Carver area to the south is included to resolve groundwater discharge issues to the Clackamas River.

Includes Areas 10 (partial), 11, 13, 14, 15, 16, 17, 18 and part of Area 19. The Damascus expansion totals 9,388 acres and provides 18,029 dwelling units and 1,474 acres for employment.

Gresham – The area south of the City of Gresham and west of Highway 26 will provide key acreage to expand the City's employment base. The remainder of the two study areas included in the expansion will provide housing for the region.

Includes Area 12 and 13 to total 3,483 acres and provides 7,808 dwelling units and 360 acres of employment land.

Oregon City – The Oregon City area is geographically challenged due to steep slopes and natural resource issues. This city has experienced a tremendous amount of residential growth within the last five years. Along with the growing pains of accommodating this residential growth and the related transportation issues, the city is searching for ways to diversify its existing job base, provide more services to developing areas and improve transportation connections. Amendments to the Urban Growth Boundary in the following study areas will complete key transportation connections and provide additional employment and services for this community.

- South End Road area: add land for commercial, office and limited residential development (part of Area 32)
- Holcombe/Redland Road area: complete an important transportation connection between Holcombe and Redland roads, provide employment lands, service commercial and land for residential development (Area 24)
- Clackamas Community College and Henrici Road area: add land primarily for employment purposes (Areas 26 and 28).

Includes Areas 24 (partial), 26 (partial), 28 (partial) and 32, for a total of 1,395 acres, 2,912 dwelling units and 219 acres for employment.

Wilsonville – The City of Wilsonville provides an important warehouse and distribution function for the region due to its location adjacent to I-5 and its existing employment base. The city has excellent access to I-5 for freight movement. Due to the already high imbalance of jobs and the regional need for warehousing/distribution lands, it is recommended that this expansion be restricted for a low employment density. Area 49 is located adjacent to the correctional facility on Day Road. To help provide a balance between employment and housing in this community, Area 45 also is proposed to be included inside the boundary. This area will provide land for two schools (25 acres).

Includes Areas 45, 49 (partial), a total of 399 acres, 660 dwelling units and 176 acres for employment and 25 acres for two schools.

Sherwood – A minor addition to accommodate a future school site and limited residential use. The majority of the areas surrounding Sherwood are not ready for urbanization due to timing issues with determining the location of the Highway 99W and Interstate 5 connector and general traffic capacity issues on Highway 99W.

Includes part of Area 59, a total of 85 acres and 313 dwelling units.

Tigard/Beaverton/King City – There are a number of small exception areas along the western edge of the UGB that abut the Cities of Tigard (Areas 61, 62, 63, 64) and Beaverton (Areas 65,

66, 67). These areas have been developed for rural residential uses and, as a result, should come inside the boundary because of the high demand for housing in Washington County. Area 66 contains farmland but will be largely surrounded by development. A portion of this site is needed to provide water storage for the City of Beaverton to facilitate urbanization both inside the boundary and within these UGB amendment areas.

Includes Areas 61, 62, 63, 64, 65, 66, 67, a total of 1,758 acres, 5,264 dwelling units and 5 acres for employment.

Hillsboro – The western portion of the region is effectively land-locked by farmlands. There are very few opportunities for consideration of land for urban expansion when the statutory hierarchy of lands system that weights consideration of exception lands higher than farmland is applied. Area 71 is a small exception area that is proposed to be added to accommodate housing in this high-demand area. Area 82 is to the west of Cornelius Pass Road and contains some limited service commercial development and an opportunity for development of some housing. Other exception areas adjacent to the city of Hillsboro are awkward to develop because of the lotting pattern or because they would have more impacts on agricultural activities.

Includes Area 71 and 82 for a total of 241 acres, 930 dwelling units.

Bethany – This area includes a cluster of exception lands and some mostly surrounded farmlands in the vicinity of the Rock Creek Community College area off Springville Road. The Bethany area includes a portion outside of the current boundary that has grown rapidly within the last several years. These study areas have easy access to employment in the Hillsboro, Beaverton and downtown Portland areas. A portion of this area will be used for a school site (10 acres).

Includes Areas 84, 85, 86 for a total of 592 acres, 2,845 dwelling units.

These areas recommended for boundary expansion result in the addition of 17,341 gross acres of land and provide added capacity for 38,761 dwelling units and 2,234 acres for employment.

Areas Not Selected for Inclusion Inside the Urban Growth Boundary
Areas that have not been selected for inclusion inside the UGB at this time may be better candidates in the future. A more thorough discussion needs to happen of issues relating to the urbanization of land in agricultural production (both exception and farmland), new transportation corridors (99W connector and Sunrise Highway) and formulation of a regional economic development policy that will guide the need and location of new industrial lands. These discussions need to take place prior to the designation of urban reserves. For example, the Damascus/Gresham study areas include enough land to develop a complete community but it is questionable whether urbanization should extend beyond Highway 26 into highly productive agricultural lands. Extending the urban area to the east also creates a potential conflict with the City of Sandy and the inter-governmental agreement that establishes the county line as the ultimate boundary. The majority of these lands are designated as exception lands. By following the hierarchy of lands in Goal 14, these are lands that should be urbanized first. How do these lands compare in value to the lands surrounding Hillsboro for agriculture as an industry that creates jobs and contributes to our economy?

The Stafford basin represents an area bounded by I-205 and several communities. If allowed I would establish a freeze on development in this area so it could be planned properly. Without

the power to halt development I am recommending that a comprehensive study be undertaken to determine the type of employment that should be located in this area and how the adjoining communities will participate in its development. Development of this area should be planned through the designation of urban reserves. During this process a number of questions need to be answered. Should the highway form a hard edge to the boundary or should the boundary extend further south to take in the remainder of the exception lands? Timing also is an issue in this area in relation to providing and preserving transportation access and extending urban services.

The adjacent communities of Lake Oswego and West Linn are investing in their mixed-use centers that could be enhanced by any urban development. There is a danger in not bringing the study area adjacent to the City of West Linn because it allows rural residential development to occur without the benefit of planning that would enhance the already developing town center. Orderly urban development in this area could help avoid some of the problems that the Damascus area is facing. Bringing land into the boundary in the short term may hinder our efforts to ensure a comprehensive to urbanization.

Some of the same issues of timing and coordination that are facing the Stafford basin apply to Tualatin, Wilsonville and Sherwood. The City of Sherwood has asked that no additional land be added adjacent to their city limits until they have time to absorb the growth that has taken place over the past five years. The exception to this statement is their request for a small portion of area study area 59 that will provide land for some housing and a school site. The 99W connector is an issue that needs to be resolved prior to inclusion of these study areas inside the boundary. Other issues relate to whether Tualatin/ Wilsonville/Sherwood and Cornelius/Hillsboro and the region are best served by the existing separation of community's policies or whether the region as a whole is better served by connecting these communities. Does this separation provide a sense of place or is it an artificial barrier and at what cost do we maintain it?

Hillsboro needs additional industrial land to support the long-term investments in the westside high-tech cluster. In addition, Forest Grove and Cornelius are suffering from having an insufficient tax base to run their cities. All these communities are surrounded by farmland making expansion problematic.

Technical Amendments to the Urban Growth Boundary

A number of odd situations exist around the region where the boundary has not been consistently mapped. In some cases, these situations hamper provision of public services for urbanization or they impose a hardship on individual property owners. In some cases, the city limits extend beyond the boundary and this could create governance problems. Examples of two of these situations are location of the boundary along a drainage basin where it splits a tax lot or the failure to include all of the road right-of-way within the boundary. Staff has proposed that the boundary be amended to eliminate these vagaries and provide more consistency. The appendix refers to the technical amendments to the Urban Growth Boundary staff reports, maps, descriptions and locations of these minor changes to the boundary.

Further Topics for Policy Discussion

There are three key areas that warrant future policy discussion. Broadly they are: 1) an assessment of agricultural productivity and upon lands that have been set aside for farm and

forest protection[9], 2) the ultimate urban form of the region and 3) development of a regional economic development policy. These topic areas lead to a number of questions and issues that are listed below. Some of these topic areas will be incorporated into the follow-up Periodic Review work program tasks.

- As a State we have been very provincial by separating agricultural versus urban uses and in our classification of land as exception or farmland. Due to changing agricultural practices and markets these classifications may need to be revisited. Does the productivity of land for agricultural uses need to be re-assessed; is protection located in the right places? Does the protection pertain to the areas that contribute most to the agricultural industry? Has the agricultural industry changed and will it change in the future? Do the status of exception lands need to be reviewed with each county? Perhaps there are some areas within the boundary where agricultural uses would be beneficial to the region. Other states have used transfer of development rights and covenants on land so that agricultural lands can remain in farm use. The benefit to this strategy might be better provision of farm to market opportunities, locally produced fruits and vegetables and reduced transportation costs associated with food production. Do these benefits warrant examination of mixing agricultural land uses with urban land uses?

- Should we be looking in from the boundary back to the regional and town centers to decide where the right places are to grow in the future? Does planning at the edge force us to define a geographic limit to the region? Is this a weakness in our land use system? This examination may spur development of new tools for protection of farmland and a new perspective on the form our region takes in the future. Can designation of urban reserves be used to shape our urban form and should these areas contain farmland?

- Development of a regional economic development policy would guide decisions that will support our present and future economy. We need to be forward looking to plan to support industries that will sustain the economic vitality of the region. If we have a clear picture of what those industries are and their land needs we can better preserve existing lands within our boundary, convert underutilized lands for other purposes and make the right expansion decisions.

Follow-up Tasks

Due to the closing deadline of Dec. 20, 2002, to complete Task 2 of the current Periodic Review Work Program, I am recommending that the work program be amended to address a number of tasks. These tasks are due to the need for additional discussion on a regional level and/or lack of time to complete the work to fulfill these tasks. Metro has asked the Land Conservation and Development Commission to consider rule making to define the subregional issue. This is an important issue that must be approached carefully. The implications of moving ahead with a subregional decision that has not been fully considered will have lasting effects on our agricultural community, natural resources and the physical form the region takes. I recommend these follow-up tasks:

[9] Protection is defined by the hierarchy of lands in Goal 14.

1. **Designation of Urban Reserves**
   Evaluate designation of urban reserve areas for future urban expansion. This area could be as large as 100,000 acres. Coordinate with Metro partners as well as take a wider Willamette Valley coordination approach to discuss the future urban form of our region.

2. **Centers Implementation**
   Develop a cohesive centers program to implement the proposed strategy. Develop the synergistic role of corridors in the implementation centers. Explore other ways to provide incentives for 2040 centers implementation.

3. **Follow-up Employment Research**
   Evaluate targeted areas for conversion of industrial uses to allow mixed uses including residential. Require a protection program for targeted industrial and employment areas inside the boundary. Develop a strategy that includes locational criteria for targeted sectors of our economy.

4. **Employment Land Analysis**
   Address the remaining employment land-need shortfall after development of a regional economic development policy. Formulation of an economic development strategy should take into consideration, location of existing industries, future growth, emerging industries as well as farm industry needs because of the importance of agriculture to our economy.

5. **Adoption of a Goal 5 Program**
   Complete and adopt a Goal 5 natural resources protection program.

6. **Green Spaces Bond**
   Refer a Greenspaces II bond measure to voters for protection of natural areas both inside of the existing boundary and for urban reserve areas outside of the boundary to finish the work we have started through the 1995 Bond Measure. This bond measure will address the needs of the region for the long term and will be designed to acquire land to increase the connectivity between habitat areas and protect habitat diversity. Key stream corridors connecting regional anchor sites need to be protected to provide links to the rural landscape.

7. **Subregional Need**
   Pending adoption of an administrative rule by the Land Conservation and Development Commission, evaluate the need for land for housing and employment on a subregional basis.

8. **Revenue Sharing**
   Initiate a discussion on equalizing tax revenues through a revenue sharing program.

Review of the Executive Officer Recommendation

This recommendation will serve as a basis for discussion during the Metro Council public hearing process to amend the Metro Code and amend the UGB. Input from citizens, local government staff and from elected officials is both important and welcome in this review process. My recommendation is submitted for your review and action.

Appendix

The following documents are available from Metro's Planning Department by calling (503) -797-1757 for a nominal fee. A number of these reports are also available on Metro's website at www.metro-region.org and these are designated with an asterisk.

1. Performance Measures Report
2. Regional Employment Forecast 2000 to 2030*
3. 2002-2022 Urban Growth Report – Residential Land Need Analysis*
4. 2002-2022 Urban Growth Report – Employment Land Need Analysis*
5. Map Atlas Memorandum and Maps
6. 2002 Alternative Analysis Study*
7. Goal 14: Where to Satisfy the Region's 20-Year Urban Land Needs Through UGB Expansion, flow chart
8. Specific Land Needs Report – Employment*
9. Proposed UGB Amendment Study Area Maps and Table*
10. 2040 Refinement Report and Policy Recommendations*
11. Technical Amendments to the UGB Memorandum
12. Specific Land Needs for Public Facilities and School Sites Memorandum
13. Regional Industrial Land Study (RILS) Report, version III
14. Metro Urban Centers: An Evaluation of the Density of Development
15. Ten Principals for Achieving Region 2040 Centers

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POTENTIAL REGIONALLY SIGNIFICANT INDUSTRIAL AREAS

1. Hillsboro
2. Rivergate
3. NW Industrial
4. Swan Island/Mocks Bottom/Lower Albina
5. Columbia Corridor West
6. South Shore East
7. Alcoa/possible future science and technology center
8. Foster
9. Wilsonville
10. Tualatin
11. I/5 South
12. Clackamas
13. Forest Grove/Cornelius

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14. Brooklyn
15. Gresham
16. Johnson Creek
17. Beaverton/217
18. Central Eastside

CRITERIA FOR ASSESSING POTENTIAL REGIONALLY SIGNIFICANT INDUSTRIAL AREAS

1. Existing Title 4 2040 Industrial lands

2. MetroScope job gains and losses

3. Intermodal designations in proximity to Title 4 lands

    - Reload facility
    - Truck terminal
    - Marine facility
    - Distribution facility
    - Air cargo facility
    - Intermodal rail yard
    - Main roadway routes
    - Road connectors
    - Main railroad lines
    - Branch railroad lines and spur tracks

4. Areas with shortage of industrial land/parcel size

MEMORANDUM

Date: October 10, 2002

To: JPACT

From: Councilor Larry Haverkamp, City of Gresham, Cities of Multnomah County

Re: Proposed Amendment to JPACT memo on Periodic Review of UGB

Given the Executive Officer's recently presented supplemental recommendation, I believe it is important to clarify the language to reflect the most recent proposal. I therefore respectively offer the following amendments:

Introductory paragraph:

The Joint Policy Advisory Committee on Transportation (JPACT) has reviewed key pieces of work and the Metro Executive Officer's recommendation on Periodic Review of the Urban Growth Boundary (UGB), including the October 8, 2002 supplemental recommendation. In general, we support…

Industrial Lands

JPACT supports efforts underway to identify as much industrial land as possible in this Periodic Review effort, including those areas identified in the Executive Officer's October 8, 2002 supplemental recommendation. Balanced and adequate employment growth throughout the region is important to making efficient use of the regional transportation system. JPACT also generally…

Where do we grow from here?

SUMMER 2002

Let's Talk

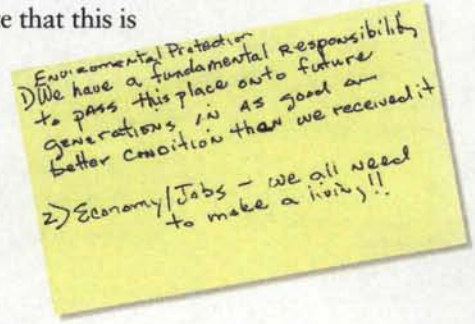
REGIONAL CONFERENCE AND COMMUNITY WORKSHOPS EXECUTIVE SUMMARY

Metro's 2002 Let's Talk regional conference and community workshops took place March 15-16, 2002, in Portland, Gresham, Milwaukie, Tigard and Hillsboro. The conference and workshops attracted 1,200 residents, business people and citizen activists to discuss the difficult decisions facing the region. Expected population growth during the next 20 years means Metro's elected officials must decide where to expand the region's urban growth boundary and how much land to add for new housing and jobs. These complex decisions must be based on legal requirements, as well as the values and desired outcomes of the region's residents. As land that can be developed becomes scarce, some of the public's values and desired outcomes directly compete with one another. Metro posed those tradeoffs as starkly as possible at the conference and workshops and asked participants to express their priorities.

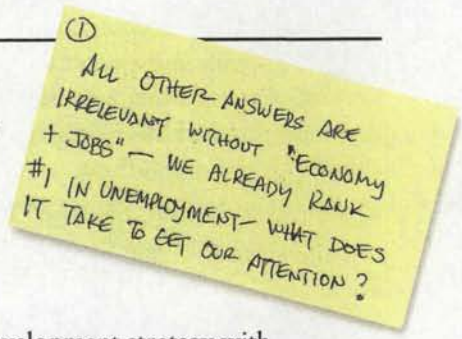
In facilitated small-group discussions, participants were asked to consider a series of questions related to managing growth and to arrive at a group answer for each question. In addition, participants completed a questionnaire individually.

Conference and workshop participants selected transportation, environmental protection and the economy and jobs as regional issues deserving greater emphasis. Housing options and neighborhoods were frequently identified as key issues, too.

Many participants view a healthy economy and the creation of jobs as the essential issue facing the region and its leaders. A good job contributes to quality of life; a healthy economy is viewed as a means to pay for other services and features that make communities whole. Participants note that this is missing from the region's planning framework. Several call for the addition of a regional economic development strategy with input from the business community. The strategy should include developing an industrial and commercial land base to address the shortage of large-lot industrial sites.



Metro asked citizens their thoughts about the choices we face in our region. More than 1,270 handwritten notes were collected from participants.



Respondents want more businesses to locate in the communities where they live. People reason that good town center development with centralized services and a mix of housing types and prices will attract more businesses. This kind of development pattern will minimize environmental and traffic impacts – another plus for drawing businesses to the area.

For many, improving the transportation system is on equal footing with support for a healthy economy and jobs. For a community to thrive, people need jobs – and they need a reliable way to get to work.

People are aware of the significant needs (as well as the limited monies available) for transportation improvements. They want their transportation infrastructure to be in place before further urban development occurs. Finally, some participants favor increasing transportation investments in the communities where they live as opposed to funding projects of significance to the entire region.

For more information

For more information or to request a copy of the Let's Talk regional conference and workshops report, call (503) 797-1932. The report is available on Metro's web site at **www.metro-region.org**.

Where do we grow from here?

Focusing growth in centers

Given the tradeoffs and choices, enhancing town and regional centers is the preferred way to absorb growth and reduce the need for increased density in other neighborhoods. According to respondents, the centers approach – with investments in transportation, economic development and other amenities – will spur job development and housing starts and bring about more choices for traffic solutions.

Many link their support for centers to a desire to hold the urban growth boundary intact. Others suggest holding the boundary intact to enhance town and regional centers. In either case, the more efficient use of existing land, good design and pedestrian-friendly connections to commercial areas is deemed important. Group support for centers is less strong – but still preferred – in local communities.

A resounding majority of respondents believe the region should make transportation, economic development and other investments in town and regional centers to encourage a mix of housing and jobs.

Hold the urban growth boundary

For some, the urban growth boundary is an indelible line in the sand. "A boundary is a boundary," said one Milwaukie participant. Several no-growth/slow-growth advocates challenge the assumption that growth is inevitable and demand that Metro find ways to stabilize growth rather than accommodate it. Others express concern that any expansion will "lessen the likelihood of fixing problems and reaching full potential within the current urban growth boundary."

There were many suggestions on ways to limit an expansion of the urban growth boundary They include limiting the size and footprint of new housing, requiring new infrastructure be in place before expanding into a new area; and changing the legal requirement for a 20-year supply of land within the urban growth boundary.

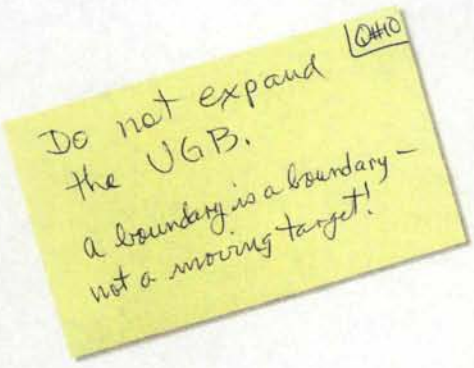
Implement current state and regional polices

Several respondents raise concerns about the perception that local governments are not implementing current policies. Others would like local jurisdictions to recommit to regionalism, noting that regional thinking requires a community of interest beyond one's neighborhood. Some urge Metro to provide more models to help guide local governments in implementation of regional land-use goals.

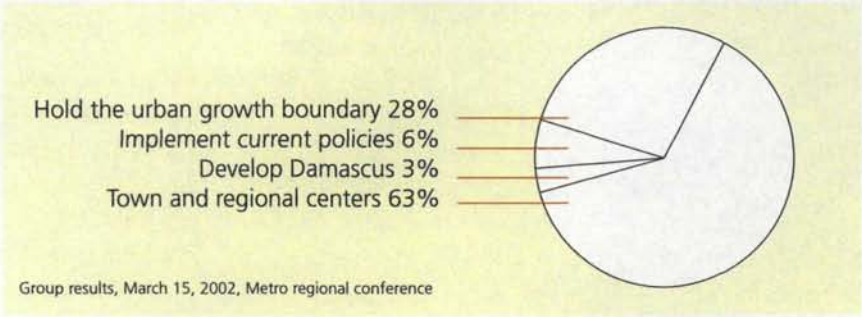
Other ideas related to current policies include adding incentives to encourage the use of currently under-developed or under-used land, getting more input on policies from the business community, investigating other regional forms besides continuous expansion of the urban growth boundary, and allocating more land to the urban growth boundary if certain land-use policies restrict use of other lands within the existing boundary.

Develop a new urban community in Damascus

While developing a new urban community in Damascus garners some support – particularly from Gresham and Milwaukie respondents – comments from the conference and community workshops are not favorable. Most question the ability of a new urban community in Damascus to solve the challenge posed by the region's population growth in the next 20 years. They cite environmental constraints associated with protecting the Clackamas River as well as a lack of infrastructure, transit and jobs.

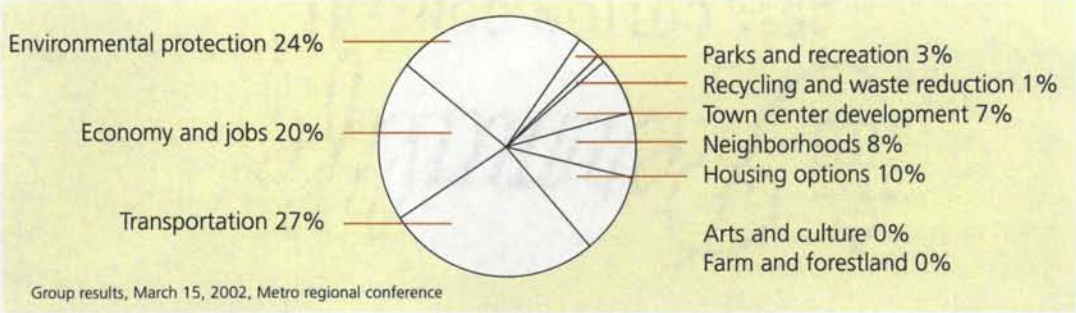


Which urban growth boundary approach would you emphasize?



Group results, March 15, 2002, Metro regional conference

Which two regional issue areas deserve greater emphasis?



Group results, March 15, 2002, Metro regional conference

Preserve existing neighborhoods

Many respondents emphasize the importance of maintaining a neighborhood's distinct character. In Tigard, residents complain about accepting too much "new" density in their residential communities. In Portland, participants want to "keep density on main thoroughfares, not in residential single-family neighborhoods." Similar beliefs echo from the Gresham community meeting, "Neighborhoods are most important; if they aren't good, nothing else really matters." Some residents would like urban design standards and models that would help maintain the character and livability of individual neighborhoods. Others suggest that Metro empower neighborhoods to implement regional growth management policies.

Protect farm and forest lands

Strong support for the protection of farm and forest land is evident. Support focuses on maintaining a farming economy, protecting a finite supply of agricultural lands that feed the nearby population and using "healthy" farming practices. There is a noticeable schism, however, between those who place a high value on farmland and a farm economy and those who see the land as a relief valve for neighborhood density associated with growth.

Affordable housing

Many people raise concerns about the provision of affordable housing in the region. However, opinions vary widely depending upon the location of person's home. Residents of Gresham feel their community has too much affordable housing, while those living in Hillsboro and Portland feel there is not enough.

Participants urge Metro to implement a regional affordable housing strategy. The strategy should include the use of inclusionary zoning, which requires that a percentage of all new development be affordable, and the creation of a housing trust fund. Respondents also want protection for existing affordable housing and incentives for the development of affordable housing for families and local residents, including tenants, to benefit from new investment and development.

What about the economy?

While hungry to support a healthy economy and jobs, as well as reinvestment in their communities, most respondents seem convinced that there is room in existing town and regional centers for business expansion and new business ventures without an expansion of the urban growth boundary. For that matter, many question whether existing businesses are using their properties efficiently. Others believe there are already ample redevelopment opportunities, including the reuse of abandoned industrial land.

Those expressing concern about a perceived shortage of job-producing land in the region are more willing to allow expansion, but only onto parcels easily served by infrastructure, or in the case of warehouses, situated near freeways. Another case made for expanding the urban growth boundary is to correct a perceived jobs-housing imbalance. Some want more land for jobs and housing in Washington County and more land for jobs in Clackamas County. As for high-tech industries, the sentiment is that those industries will continue to locate near each other, not in a new community such as Damascus in Clackamas County.

Overall, the otherwise firm positions favoring the protection of high-quality farmland from development soften when that development involves using farmland as the location for new high-tech jobs: 31 percent of individual respondents are willing to let this happen compared to 20 percent who would support using farmland for more warehouse jobs.

How can transportation serve our communities?

Transportation issues deserve greater emphasis

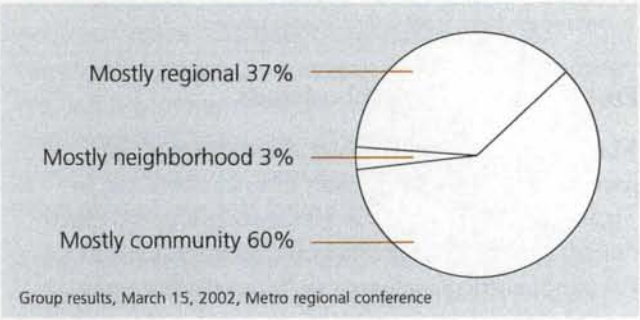
The majority of conference and community workshop participants select transportation as their top choice when asked which two regional issue areas deserve greater emphasis. Supporting the economy and jobs, traffic congestion and finding transportation funding solutions are cited as specific areas that deserve greater emphasis. Participants suggest that Metro emphasize transportation investments that support the movement of freight, support future industrial development and promote economic development.

Many participants mention traffic congestion as a key livability issue. However, there are clear differences in how participants feel this issue should be addressed. Some feel that the transportation infrastructure must keep pace with growth and say roads and highways currently are not adequate to meet the needs of commuters or businesses. Others caution that building more roads or expanding highways is not a viable solution. Instead, they feel the emphasis should be on improving transportation alternatives and reducing the use of autos.

Participants were asked what kind of projects should be the focus of our transportation investments. They choose between regional projects, such as highway and light rail, community projects, such as streets and busses or neighborhood projects, such as sidewalks and traffic calming. Small-group participants prefer an emphasis on "community" transportation investments over regional or neighborhood spending. Those at the community workshops express somewhat greater support for neighborhood projects.

- an allocation between regional and community projects seems most reasonable rather than limiting transportation investments to one or the other

Should the focus of our transportation investments emphasize regional, community or neighborhood projects?



Group results, March 15, 2002, Metro regional conference

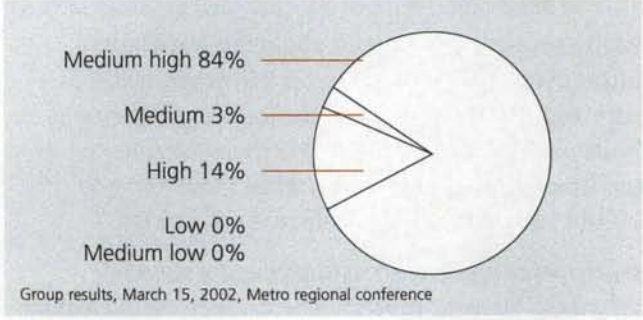
Those who select "mostly community" feel that the region and communities would benefit from the mix of projects through the creation of better access to jobs, goods and services; support of local economies; decreased demand on the regional system and improved bus service.

Freeways and highways divide support for regional focus

Many participants comment that they did not select "mostly regional" because they did not support widening freeways and highways, although they feel many of the transit and light-rail projects defined as regional were important. They are concerned about the

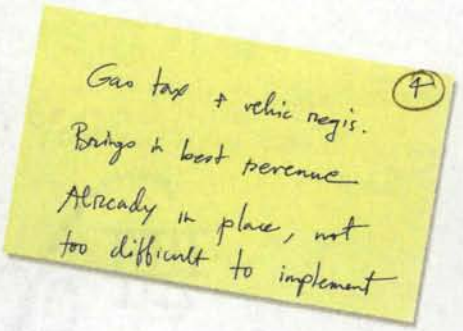
3. Will this investment be taking away from other priorities?

What level of investment should we make in our transportation system in the next five to 10 years?



Group results, March 15, 2002, Metro regional conference

impacts of regional highway projects on neighborhoods and the environment. Others support a regional focus and say that widening highways and freeways would support movement of freight, reduce traffic bottlenecks, support the region's economy and accommodate expected growth. Some who support a regional focus feel that regional projects would provide the greatest benefits for the most people.



Participants support gas tax and vehicle registration fees for new funding

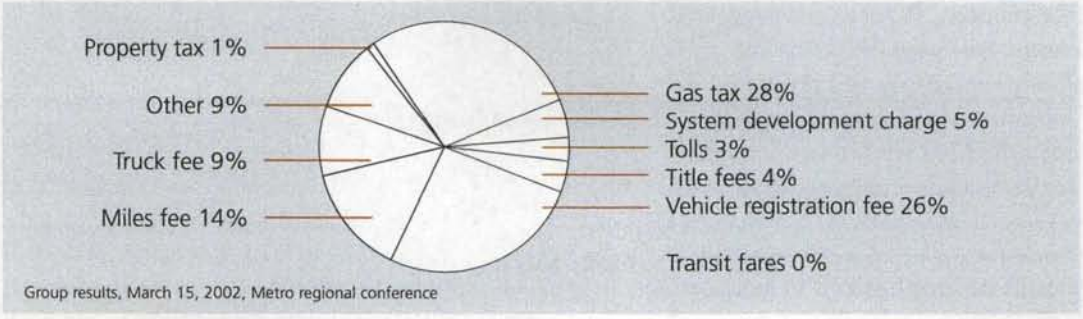
Participants at the conference support "medium high" to "high" levels of investment in the transportation system while workshop participants, groups and individuals, tend to support "medium high" to "medium" levels of investment. Even the medium level of investment would mean raising existing transportation taxes and fees.

Conference and community workshop participants, as groups and individuals, prefer gas tax and vehicle registration fees as sources for raising additional transportation funds. There also is support for a vehicle mileage fee, truck fees and system development charges. Participants express some concern about the effect of increasing vehicle registration fees and/or the gas tax on people with low or limited incomes.

Some note that increased accountability and citizen oversight would be needed to ensure that any additional funds are spent efficiently.

Participants select the maintenance of bridges and roads as their top priority followed by expansion of light rail, increased bus service and development of commuter rail.

If you had to identify additional funding sources to finance transportation projects and find a way to pay for maintaining the existing system, what two funding sources would you prefer?



Group results, March 15, 2002, Metro regional conference

Can we keep it green?

Natural resource protection

Participants want Metro to protect all natural resources with continued community involvement and a consensus vision. They believe open spaces enhance their sense of place and create a "transition" between communities. They want to see an economic value placed on greenspaces and want planners to look at development impacts on water supply, natural resources, farms and forestland.

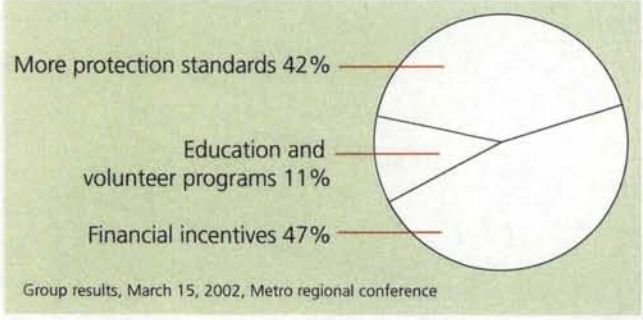
The majority of groups support financial incentives to encourage private stewardship. Many also support increased protection standards; education and volunteer programs had the least support.

Participants view education and volunteering as a way for communities to partner and as a means for individual landowners to be involved in protecting natural resources. Others see it being very cost-effective because it leads to prevention.

Financial incentives should be used to protect natural resources. These resources are a public trust and should be paid for with public resources. Regulations can be overly restrictive & don't take into account site distinctions.

Financial incentives encourage protection without stringent restriction and don't affect private property rights since the landowner chooses to participate and remains primary steward of the property. Participants suggested incentives such as a home mortgage deduction for stewardship, streamlining regulations and permit processes, financial incentives for sustainable building practices, property tax reductions for lost development opportunities, technical assistance and free education on stewardship options.

Which strategies should be emphasized to support private landowner stewardship of fish, wildlife and water resources?



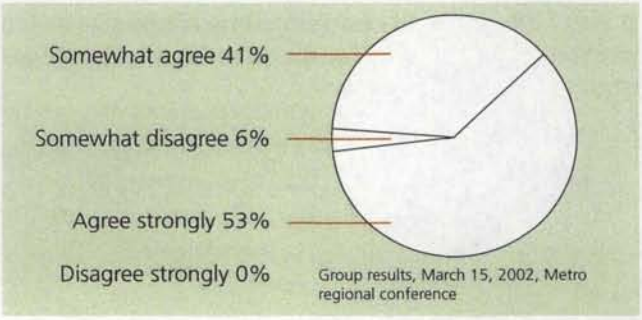
Group results, March 15, 2002, Metro regional conference

Some conference participants view protection standards as a last resort while others view them as a goal. They value consistent regionwide standards combined with regionwide funding equitably allocated so everyone can meet the standard.

Everyone agrees that all protection strategies need to work together. Residents seem to envision a set of tools to be applied to needs while recognizing that different tools require different funding levels and take different lengths of time to show results. They want business interests, environmentalists and residents to generate creative solutions to maintain economic growth, protect the environment and enhance neighborhoods.

#7. Important to maintain levels of parks & recreation. Builds community, creates places for people to meet, become extension of living space of home.

Should we ensure that there is a minimum level of park and recreation facilities for every community in the region?

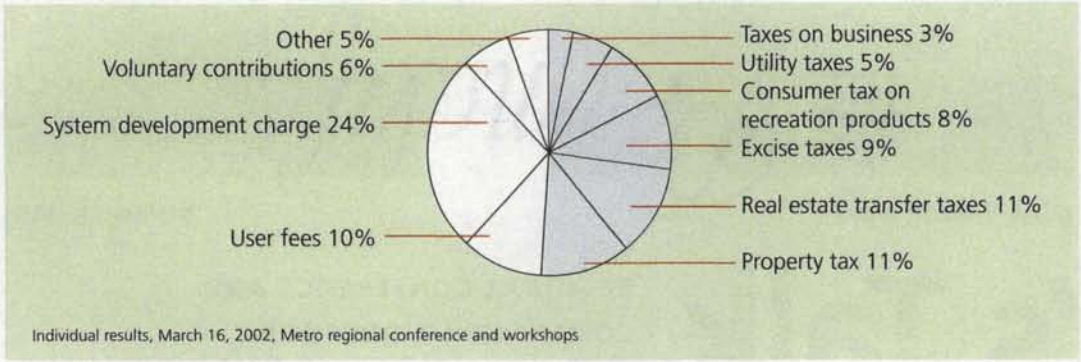


Group results, March 15, 2002, Metro regional conference

Parks and recreation

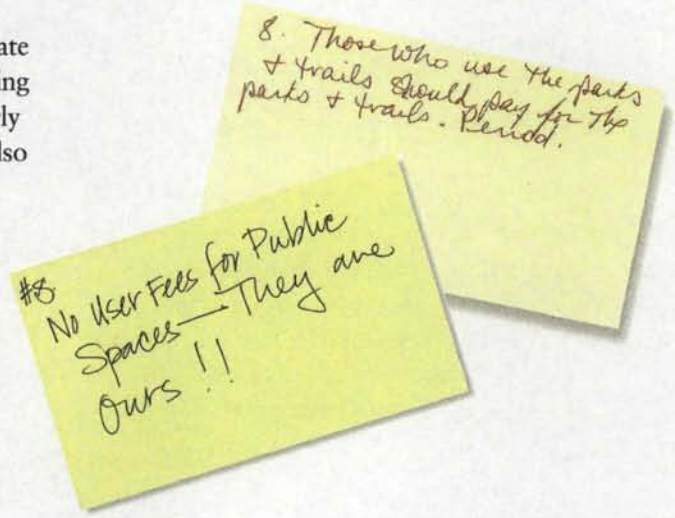
A majority of group participants agree with the concept of providing a minimum level of park and recreation facilities for every community in the region. Participants say they desire parks and recreation because they build community, create meeting places and extend the living space of homes. They feel dense new development (infill) can be made more livable by providing a minimum level of parks. They generally agree that local parks should be managed locally, but envision Metro planning for parks and/or making sure land is available for local improvements.

If you had to identify additional funding sources to build new parks and trails and find a way to pay for their operation, what two funding sources would you prefer?



Individual results, March 16, 2002, Metro regional conference and workshops

When considering funding sources to build and operate new park and recreation facilities, six of the 10 funding options chosen involve using tax revenues, particularly property taxes and real estate transfer taxes. There also is support for use of system development charges.



About Metro

Metro serves 1.3 million people who live in Clackamas, Multnomah and Washington counties and the 24 cities in the Portland metropolitan area. Metro provides transportation and land-use planning services and oversees regional garbage disposal and recycling and waste reduction programs.

Metro manages regional parks and greenspaces and the Oregon Zoo. It also oversees operation of the Oregon Convention Center, the Portland Center for the Performing Arts and the Portland Metropolitan Exposition (Expo) Center, all managed by the Metropolitan Exposition Recreation Commission.

For more information about Metro or to schedule a speaker for a community group, call (503) 797-1502 (executive office) or (503) 797-1540 (council).

Metro's web site: **www.metro-region.org**

Metro is governed by an executive officer, elected regionwide, and a seven-member council elected by districts. An auditor, also elected regionwide, reviews Metro's operations.

Executive Officer– Mike Burton; Auditor Alexis Dow, CPA; Metro Council – Presiding Officer Carl Hosticka, District 3; Deputy Presiding Officer Susan McLain, District 4; Rod Park, District 1; Bill Atherton, District 2; Rex Burkholder, District 5; Rod Monroe, District 6; David Bragdon, District 7

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Portland, OR 97232

METRO

PEOPLE PLACES
OPEN SPACES

Where do we grow from here?

SUMMER 2002

Let's Talk

REGIONAL CONFERENCE AND COMMUNITY WORKSHOPS EXECUTIVE SUMMARY

Stay informed and involved

www.metro-region.org

Thousands of residents from cities in the metro area took part in a full-slate of activities to let decision-makers know their opinions on growth. Metro asked participants – individually and in small groups – for their preferences and choices about tradeoffs they were willing to make and how to pay for what they recommended.

As expected, there was no shortage of ideas about the crucial issues facing our region. Lively conversations and debates characterized the gatherings.

There also was no consensus on the direction the Metro Council should take. However, your comments and ideas, as well as technical data, legal requirements and the executive officer's recommendation will help inform the decision.

We hope you will continue to remain involved. Your participation gives us the best chance to turn this special place over to future generations with the knowledge that we did our best to make it better.

Thank you.

Mike Burton
Executive Officer

Carl Hosticka
Presiding Officer

Upcoming urban growth boundary public hearings

Map viewing 5 p.m.
Public hearing 6 to 8:30 p.m.

Oct. 1 – Forest Grove Community Auditorium
1915 Main St., Forest Grove

Oct. 3 – Beaverton Library Room A-B
12375 SW Fifth, Beaverton

Oct. 10 – Damascus Community Church
14251 SE Rust Way, Boring

Oct. 15 – Tualatin High School
22300 SW Boones Ferry Rd., Tualatin

Oct. 22 – Clackamas Community College
Gregory Forum 1
9600 Molalla, Oregon City

Oct. 24 – Gresham Council Chamber
1333 NW Eastman Parkway, Gresham

Oct. 29 – Portland Council Chamber
1221 SW Fourth, Portland

Comments should be directed to the Metro Council Office at (503) 797-1540 or ugb@metro.dst.or.us. Contact Metro staff for questions at (503) 797-1839 or 2040@metro-region.org.

JPACT Members and *Alternates*

COURTESY_TITL	FIRST_NAME	MIDDLE_NAME	LAST_NAME	ORGANIZATION	REPRESENTING	ADDRESS	E	SUITE	CITY	STATE	ZIPCODE
The Honorable	**Rod**		**Monroe**	**Metro**	**Chair**	**600 NE Grand Ave.**			**Portland**	**OR**	**97232-2736**
The Honorable	**Rex**		**Burkholder**	**Metro**	**Metro**	**600 NE Grand Ave.**			**Portland**	**OR**	**97232-2736**
The Honorable	**Rod**		**Park**	**Metro**	**Mero**	**600 NE Grand Ave.**			**Portland**	**OR**	**97232-2736**
The Honorable	*Carl*		*Hosticka*	*Metro*	*Metro*	*600 NE Grand Ave.*			*Portland*	*OR*	*97232-2736*
The Honorable	**Bill**		**Kennemer**	**Clackamas County**	**Clackamas County**	**907 Main St.**			**Oregon City**	**OR**	**97045-1882**
The Honorable	*Michael*	*J*	*Jordan*	*Clackamas County*	*Clackamas County*	*906 Main St.*			*Oregon City*	*OR*	*97045-1882*
The Honorable	**Maria**		**Rojo de Steffey**	**Multnomah County**	**Multnomah County**	**501 SE Hawthorne Blvd.**	**Room**		**Portland**	**OR**	**97214-3585**
The Honorable	*Lonnie*		*Roberts*	*Multnomah County*	*Multnomah County*	*501 SE Hawthorne Blvd.*	*Room*	*600*	*Portland*	*OR*	*97214-3585*
The Honorable	**Roy**		**Rogers**	**Washington County**	**Washington County**	**12700 SW 72ND Ave.**			**Portland**	**OR**	**97223-8335**
The Honorable	*Tom*		*Brian*	*Washington County*	*Washington County*	*155 N. 1st Ave.*	*MS*	*22*	*Hillsboro*	*OR*	*97124-3001*
The Honorable	**Jim**		**Francesconi**	**City of Portland**	**City of Portland**	**1221 SW 4th Ave.**	**Room**	**220**	**Portland**	**OR**	**97204-1906**
The Honorable	*Vera*		*Katz*	*City of Portland*	*City of Portland*	*1221 SW 4th Ave.*	*Room*	*340*	*Portland*	*OR*	*97204-1907*
The Honorable	**Karl**		**Rohde**	**Oswego**	**County**	**PO Box 227**			**Oswego**	**OR**	**97034-0369**
The Honorable	*Brian*	*M*	*Newman*	*City of Milwaukie*	*Cities of Clackamas County*	*10110 SE Waverly Ct.*	*#*	*19*	*Milwaukie*	*OR*	*97222*
The Honorable	**Larry**		**Haverkamp**	**City of Gresham**	**County**	**1333 NW Eastman Pkwy.**			**Gresham**	**OR**	**97030-3825**
The Honorable	*James*	*W*	*Kight*	*City of Troutdale*	*Cities of Multnomah County*	*950 Jackson Park Rd.*			*Troutdale*	*OR*	*97060-2114*
The Honorable	**Robert**		**Drake**	**City of Beaverton**	**County**	**PO Box 4755**			**Beaverton**	**OR**	**97076-4755**
The Honorable	*Lou*		*Ogden*	*City of Tualatin*	*Cities of Washington County*	*21040 SW 90TH Ave.*			*Tualatin*	*OR*	*97062-9346*
Mr.	**Fred**		**Hansen**	**Tri-Met**	**Tri-Met**	**4012 SE 17th Ave.**			**Portland**	**OR**	**97202**
Mr.	*Neil*		*McFarlane*	*Tri-Met*	*Tri-Met*	*710 NE Holladay St.*			*Portland*	*OR*	*97232*
Ms.	**Kay**		**Van Sickel**	**ODOT**	**ODOT**	**123 NW Flanders St.**			**Portland**	**OR**	**97209-4037**
Mr.	*Bruce*		*Warner*	*ODOT*	*ODOT*	*355 Capitol St., NE*	*Room*	*135*	*Salem*	*OR*	*97301-3871*
Ms.	**Stephanie**		**Hallock**	**DEQ**	**Oregon DEQ**	**811 SW 6TH Ave.**			**Portland**	**OR**	**97204**
Mr.	*Andy*		*Ginsburg*	*DEQ*	*Oregon DEQ*	*811 SW 6th Ave.*	*Floor*	*11*	*Portland*	*OR*	*97204*
Ms.	*Annette*		*Liebe*	*DEQ*	*Oregon DEQ*	*811 SW 6th Ave.*			*Portland*	*OR*	*97204-1390*
Mr.	**Don**		**Wagner**	**WSDOT**	**Washington State DOT**	**PO Box 1709**			**Vancouver**	**WA**	**98668**
Ms.	*Mary*		*Legry*	*WSDOT*	*Washington State DOT*	*PO Box 1709*			*Vancouver*	*WA*	*98668*
Mr.	**Bill**		**Wyatt**	**Port of Portland**	**Port of Portland**	**PO Box 3529**			**Portland**	**OR**	**97208**
Mr.	*David*		*Lohman*	*Port of Portland*	*Port of Portland*	*PO Box 3529*			*Portland*	*OR*	*97208*
The Honorable	**Royce**	**E**	**Pollard**	**City of Vancouver**	**City of Vancouver**	**PO Box 1995**			**Vancouver**	**WA**	**98668**
Mr.	*Dean*		*Lookingbill*	*RTC*	*SW Washington RTC*	*1351 Officers Row*			*Vancouver*	*WA*	*98661*
The Honorable	**Craig**		**Pridemore**	**Clark County**	**Clark County**	**PO Box 5000**			**Vancouver**	**WA**	**98666-5000**
Mr.	*Peter*		*Capell*	*Clark County*	*Clark County*	*PO Box 9810*			*Vancouver*	*WA*	*98666-9810*

.UTATION	PHONE	FAX	CONTACT
ıncilor Monroe	503-797-1588	503-797-1793	Rooney Barker, x1941
ıncilor Burkholder	503-797-1546	503-797-1793	Sheri Humble, x1543
ıncilor Park	503-797-1547	503-797-1793	Rooney Barker, x1941
ıncilor Hosticka	503-797-1549	503-797-1793	Rooney Barker, x1941
nmissioner Kennemer	503-655-8581	503-650-8944	Sherry McGinnis
ımissioner Jordan	503-655-8581	503-650-8944	
nmissioner Rojo de Steffe	503-988-5220	503-988-5440	Shelly Romero, 988-4435
ımissioner Roberts	503-988-5213	503-988-5262	Bret Walker, 503-988-5213
nmissioner Rogers	503-620-2632	503-693-4545	Himself
ımissioner Brian	503-846-8681	503-693-4545	Barbara
nmissioner Francesconi	503-823-3008	503-823-3017	Pam 823-3008
or Katz	503-823-4120	503-823-3588	Judy Tuttle
ıncilor Rohde	503-636-2452	503-636-2532	Himself
ıncilor Newman	503-652-5298	503-654-2233	Himself
ıncilor Haverkamp	503-618-2584	503-665-7692	Molly
ıncilor Kight	503-667-0937	503-667-8871	Himself or Nina (Nine-ah)
or Drake	503-526-2481	503-526-2479	Joyce or Julie
or Ogden	503-692-0163	503-692-0163	
Hansen	503-962-4831	503-962-6451	Kelly
McFarlane	503-962-2103	503-962-2288	Kimberly Lord
Van Sickel	503-731-8256	503-731-8259	Jane Rice
Warner	503-986-3435	503-986-3432	Katie
Hallock	503-229-5300	503-229-5850	
Ginsburg	503-229-5397	503-229-5675	Linda Fernandez,
Liebe	503-229-6919	503-229-5675	229-5388
Wagner	360-905-2001	360-905-2222	Kim Dabney
Legry	360-905-2014	360-905-2222	
Wyatt	503-944-7011	503-944-7042	Darla or Pam
Lohman	503-944-7048	503-944-7222	Patty Freeman
or Pollard	360-696-8484	360-696-8049	Peggy Furnow (or Jan)
Lookingbill	360-397-6067	360-696-1847	
ımissioner Pridemore	360-397-2232	360-397-6058	Susan Wilson or Tina
Capell	360-397-6118, x4071	360-397-6051	Lori Olson, x4111

COMMITTEE TITLE **JPACT**

DATE **October 10, 2002**

NAME	AFFILIATION
Rod Monroe	Metro Council
Rex Burkholder	" "
FRED HANSEN	TRIMET
Bill Wyatt	Port of Portland
KARL ROHDE	C³
Maria Rojo de Steffey	Mult co
ROB DRAKE	CITIES OF WASHINGTON CO.
BILL KENNEMER	CLACKAMAS CO
Dean Lookingbill	RTC (alt. for Vancouver)
John Kvistad	Clackamas Co.
Phil Selinger	TRIMET
THAYER RORABAUGH	City of VANCOUVER
ALICE ROUYER	CITY OF MILWAUKIE
Jim Strathman	PSU
Dick Feeney	Tri-Met
Thomas Briggs Markgraf	Third District
Dave Lohman	Port of Portland
Susie Lahsene	Port of Portland

COMMITTEE TITLE **JPACT**

DATE **October 10, 2002**

NAME	AFFILIATION
Bridget Wieghart	Metro
Lynn Peterson	Citizen - Lake Oswego
Ron Papsdorf	City of Gresham
CRAIG PRIDEMORE	CLARK CO.
Stephanie Hallock	DEQ
Larry Haverkamp	Cities of Mult. Co.
DAVE WILLIAMS	ODOT
Rod Park	Metro Council
Jim Francesconi	City Council
Mike Hoglund	Metro
Jim Whitty	ODOT
Andy Cotugno	Metro
OLIVIA CLARK	TRIMET
LAUREL WENTWORTH	CITY OF PORTLAND - PDOT
Kathy Lehtola	Washington County
Deborah Murdock	PSU