MEETING REPORT

DATE OF MEETING: August 11, 1994

GROUP/SUBJECT: Joint Policy Advisory Committee on Transportation (JPACT)

PERSONS ATTENDING: Members: Chair Rod Monroe, Susan McLain and Jon Kvistad, Metro Council; Bernie Giusto, Cities of Multnomah County; Earl Blumenauer, City of Portland; Gregory Green (alt.), DEQ; Tanya Collier, Multnomah County; Royce Pollard, City of Vancouver; Roy Rogers, Washington County; Dave Lohman (alt.), Port of Portland; Tom Walsh, Tri-Met; Rob Drake, Cities of Washington County; Dave Sturdevant, Clark County; Ed Lindquist, Clackamas County; and Bruce Warner, ODOT

Guests: Rex Gilley, Jubitz; Paul Shirey, Steve Dotterrer, and Rosemary Brinson Siipola, City of Portland; Dave Williams, ODOT; Xavier Falconi, City of Lake Oswego; Sandra Doubleday, City of Gresham; Kathy Lehtola, Washington County; Bob Bothman, MCCI; Jim Howell, Citizens for Better Transit; Kathy Busse, Multnomah County; Tom VanderZanden and Rod Sandoz, Clackamas County; Susie Lahsene and Brian Campbell, Port of Portland; David Calver and Gerald Fox, Tri-Met; and Ted Spence, Citizen.

Staff: Richard Brandman, Gail Ryder, Leon Skiles, Mike Hoglund and Lois Kaplan, Secretary

MEDIA: Gordon Oliver, The Oregonian

SUMMARY:

The meeting was called to order and a quorum declared by Chair Rod Monroe.

MEETING REPORT

Commissioner Lindquist moved, seconded by Mayor Drake, to approve the July 14, 1994 JPACT Meeting Report as written. The motion PASSED unanimously.

CONSTRUCTION EXCISE TAX

Chair Monroe reported that MPAC had overwhelmingly endorsed the proposed construction excise tax at its August 10 meeting. Although it wasn't on the planned agenda, he asked that JPACT

consider a similar endorsement for submittal at the August 25 Metro Council meeting. He distributed copies of the proposed ordinance that would establish a construction excise tax to reduce the Metro excise tax, reduce solid waste rates, and refund planning service fees to local governments. In addition, a letter addressed to MPAC from Jim Zehren was distributed, urging support of the construction excise tax.

Chair Monroe indicated that the construction excise tax would create a tax on new commercial or residential construction at 12¢ per square foot. It would provide about half of Metro's long-term growth planning needs and allow it to reduce the excise tax from 7.5 percent to 6 percent. It would also rebate the unused portion of the local government dues, would be reviewed again in 1998, and "sunseted" in the year 2000.

Bruce Warner commented that he was uncomfortable in taking action at this time as he was not comfortable in supporting the concept. He asked whether this tax falls under Ballot Measure 5 and was assured it does not.

Councilor Giusto wanted to know what the letter would say before he made a commitment for endorsement. Chair Monroe indicated it would be drafted by Richard Brandman or Andy Cotugno in support of the construction excise tax and would be submitted to Metro Council at its August 25 meeting. Richard Brandman concluded that there were members who wanted further review of the information, there was a need for better understanding, and that it may not be an appropriate time to consider the proposal's approval. He noted that there is support for Metro to no longer rely on dues.

In further discussion, Commissioner Rogers asked whether the local jurisdictions would be asked to collect these taxes. Chair Monroe responded that the mechanisms call for Metro to enter into an intergovernmental agreement for collection of taxes or it could be collected by Metro. There's provision for a 5 percent fee for administrative handling costs incurred by any jurisdiction collecting taxes. Metro would have the responsibility of communicating with the building industry and a "hotline" would be installed for inquiries. Chair Monroe clarified that there would be no real estate transfer tax and that the tax would apply only to new construction. He also acknowledged having received a letter from Commissioner Hays expressing her concerns.

Commissioner Rogers indicated that he would have to vote "no" at this time for lack of adequate review.

Tom Walsh suggested the Committee be given an opportunity to look over the material and that a letter be circulated to the members

for signature before the August 25 Metro Council meeting. He felt that the proposed excise tax is a constructive step and headed in the right direction. The planning efforts are crucial for the transportation investments to be made.

Richard Brandman suggested that letters of support be drafted by the individual jurisdictions and submitted to Metro Council.

Councilor Kvistad felt that Metro needs a general tax base. He cited the need for a general source of revenue and objected to the tax proposal, noting that it would be actively opposed.

There was consensus that a letter be drafted and routed to JPACT members for signature in support of the construction excise tax with the intent of submitting it to Metro Council on August 25.

RESOLUTION NO. 94-2015 - AMENDING THE FY 1995 METRO TIP TO ALLOCATE FUNDS TO TWO ROAD WIDENING PROJECTS AND ACKNOWLEDGING MISCELLANEOUS ADMINISTRATIVE AMENDMENTS

Mike Hoglund explained that Resolution No. 94-2015 is a multi-purpose resolution: it amends the TIP to add two projects; it provides maintenance and preservation funds that are being administered through the TIP; and declares that the Metro TIP is incorporated in the state TIP. Both projects are in the RTP, have been modeled for air quality conformity, and are described in Exhibit A. The projects in question are unrelated to the "cut" package.

Action Taken: Bruce Warner moved, seconded by Commissioner Lindquist, to recommend approval of Resolution No. 94-2015, amending the FY 1995 Metro Transportation Improvement Program to allocate funds to two road widening projects and acknowledging miscellaneous administrative amendments. The motion PASSED unanimously.

UPDATE ON GENERAL OBLIGATION BOND MEASURE

Tom Walsh distributed a copy of Resolution 94-07-54, Tri-Met's resolution that is moving the $475 million General Obligation bond for the South/North light rail line toward the November ballot. He indicated that the measure was strongly endorsed by the region during the public hearings. He noted overwhelming support at the hearings and expressed his appreciation to everyone for their support.

Tom reported that Bill Robertson will chair the campaign committee and has retained Julie Williamson to work on the ballot measure. A campaign budget of $600,000 has been set. He noted there is high community support for the campaign, that $200,000

has already been raised and that Neil Goldschmidt is enthusiastically supportive of this measure. He indicated that the next 90 days represents hard work. In our approach with the business community, he cited the importance of emphasizing that this is a "package" and that the regional 1995 measure will provide for the rest of the transportation system.

RESULTS OF 2040 COMMODITY FLOW STUDY

Dave Lohman reported that the 2040 Commodity Flow Study was funded by Metro and the Port of Portland at a cost of $42,000. The analysis is being done as part of the 2040 study to address freight mobility concerns in the next 50 years and their impact on land use issues. The study was conducted by a consultant team from DRI/McGraw-Hill with direction provided by a subcommittee of TPAC.

The study concluded that the Portland area has achieved tremendous success as a trade distribution and warehousing center. Dave noted that Portland's share of the economy attributed to trade is 26 percent and its ratio of wholesale to retail is 2.7 to 1. The national wholesale/retail ratio is 1.7 to 1.

The analysis also indicates that Portland has a competitive edge because of its quick transfer among various modes, and its role as a trade and distribution center is acknowledged as a basic industry in the regional economy. He cited the importance of the transportation interchange as being critical and the need to maintain and enhance our existing transportation system as vital to the economy of the region.

The study analyzes three components: freight activity that supports local consumption; freight activity that is generated by local products and industries for shipments elsewhere; and activity tied to transshipment of freight through the region.

Dave reported that there are 100 trucking companies operating in Portland. There's a 66 percent share of freight tonnage moved by truck; rail's share of freight tonnage moved is 27 percent; and air tonnage is under 1 percent. Freight volume is expected to almost triple by 2040.

Most rail yards and intermodal facility operations are currently congested. Commissioner Blumenauer asked about our inventory of rail yards and whether they are underutilized. He questioned whether there is a need to invest more heavily in some of the truck movements if we might lose some of the rail in 2040. Dave Lohman responded that, by 2040, some additional steps need to be taken. He cited the need to plan for additional space for

intermodal facilities, to maintain our competitiveness, and for better access to and from the freeways. Susie Lahsene noted that it's a policy issue where you plan for that space: moving intermodal facilities to suburban locations instead of expanding them in their current close-in locations would have significant transportation consequences. She spoke of the benefits of intermodal rail yards' proximity to the distribution companies.

Dave Lohman commented on new intermodal hubs being constructed on the outskirts of Chicago. He spoke of the link between economic activity, freight flows, transportation activity, infrastructure requirements and system performance. He noted that Portland is primarily an "export" port. The rail cars drop off the containers and then proceed on for domestic use.

Commissioner Lindquist felt that this issue's priority should perhaps be addressed. He suggested that JPACT have stronger involvement in raising this issue to more prominence, encouraging everyone to read the summary.

Further discussion centered on the need for land to be available for distribution of transportation facilities, more space provided for additional warehousing and ease of distribution.

Chair Monroe thanked Dave Lohman for his informative presentation.

SOUTH/NORTH PROJECT BRIEFING

Richard Brandman reported that there would be a lot of activity over the coming months in the South/North Study process. He explained that Tier I deals with the narrowing of terminus and alignment options and the Tier II phase relates to the actual development of a Draft Environmental Impact Statement (DEIS) based on the recommendation developed through the Tier I process. A summary document of technical information, known as the Briefing Document, has been developed.

Committee members were interested in learning how the General Obligation bond measure relates to the process and what the schedule is. Richard responded that the schedule will remain the same whether or not the LRT bond measure passes. Today's briefing is an update of what happened in the Tier I process.

A description then followed on the alignment alternatives being considered and the narrowing of terminus alternatives. In the south end, the three terminus alternatives being considered include: an Oregon City terminus (via I-205 or McLoughlin), the Clackamas Town Center terminus, and the Milwaukie CBD terminus. In the north segment, there are five terminus alternatives:

179th Street in Clark County; 134th Street; vicinity of 88th Street in Vancouver; Vancouver CBD (39th Street north of downtown); and one near the Vancouver mall.

The LRT alignment alternatives being considered include: the Portland CBD to Milwaukie CBD; the Portland CBD; the Portland CBD to Vancouver CBD; and the Vancouver CBD to 179th Street.

Also discussed were the different alignment options, river crossings, and new bridge options. Options being considered in the downtown include a surface versus subway alignment. Other options being explored in Clark County and Vancouver include an alignment along I-5 and an option along the median of 99.

Options discussed across the Columbia include: a tunnel under the Columbia River, a lift span bridge, and a higher level bridge that would never have to open.

Criteria utilized in the study for identifying alternatives include environmental impacts, developmental opportunities, transportation issues, regional plans, new state regulations, and economic considerations.

Leon Skiles, South/North Study Project Manager, reviewed the purpose and need and goals and objectives of the South/North Transit Corridor Study followed through the Tier I process. He cited the objectives as the following: provide high-quality transit service; ensure effective transit system operations; maximize the ability of the transit system to accommodate future growth in travel demand; minimize traffic congestion and traffic infiltration through neighborhoods; promote desired land use patterns and development; provide for a fiscally stable and financially efficient transit system; and maximize the efficiency and environmental sensitivity of the engineering design of the proposed project.

Matters relating to the description of alternatives, light rail, the No-Build and TSM improvements will advance into the Tier II phase of the study. Leon noted that costs range between $2 billion and $3.5 billion depending on alternatives. He clarified that the alternatives are defined within their particular segment and the numbers are only comparable within that segment and cannot be compared between corridors. Leon noted that the emphasis is on the year-of-expenditure cost. The alternatives' cost-effectiveness is measured by the ratio on how the different alternatives perform. He indicated that the Briefing Document is derived from the Technical Summary Report. Staff has tried to lay out the advantages and disadvantages of each alternative considered.

Leon spoke of the trade-offs, benefits, disadvantages and advantages, and travel time improvements in consideration of the alternatives. Richard Brandman pointed out that the travel time findings were of key importance in this study. He indicated that transit travel times are recognized as a long-term investment in the year 2015. He emphasized that the study included a full ridership projection of auto, transit, travel patterns, and bus networks. Commissioner Blumenauer suggested the usefulness of a one-page summary sheet on ridership and Richard Brandman indicated one was near completion.

Leon Skiles noted that one of the key factors in the cost numbers for the alternatives is the cost of using the Hawthorne Bridge from downtown Portland to Milwaukie. He emphasized the fact that, whether a bridge may cost less or more, it may cost you more to get to that bridge. In terms of alignment alternatives, the choice rests with which area you want to serve. He elaborated further on the issues of ridership, cost and land use that still need to be addressed. It was clarified that this analysis was based on existing land use plans.

A discussion followed on the Ross Island Bridge crossing. Richard Brandman reported that there are a number of issues involved including developmental opportunities, environmental concerns, engineering constraints and cost. He noted that different bridge construction techniques are being explored but an alignment next to the existing Ross Island Bridge is viable. The assumption is that it would be a bridge rather than a tunnel because of cost. Richard cited the steep banks as creating a cost problem for tunneling. He noted that the financing plan would be to secure 50 percent federal funds. With a $475 million General Obligation bond, the expectation is that they will be seeking an equivalent amount of funds ($475 million) from the State of Oregon. He noted that an equivalent share ($475 million) is expected from the State of Washington. Richard cited the need to better define the project in order to determine the State of Washington's share but they are looking at one-third of the total local match.

Richard indicated that the PMG would be releasing its recommendation to the CAC later this month. A possible Steering Group meeting may be scheduled later in September. Four public meetings are scheduled for September 6, 7 and 8. The Steering Group will meet October 6 to define their recommendation for forwarding to the jurisdictions and C-TRAN with final adoption anticipated by Metro Council in December.

Richard reviewed the handout on the proposed Tier I schedule and key milestone dates. He felt the South/North LRT project could be operational within the 2004 or 2006 timeframe.

Councilor Kvistad raised questions about Willamette River bridge costs. Richard responded that the cost of the bridge is not as relevant as the cost of the segment. Commissioner Blumenauer noted that there are two issues involved: there is a cost differential and you lose a lot of ridership if the alignment is not located on the Westside.

ADJOURNMENT

There being no further business, the meeting was adjourned.

REPORT WRITTEN BY: Lois Kaplan

COPIES TO: Rena Cusma
Dick Engstrom
JPACT Members

M E M O R A N D U M

METRO

Date: October 12, 1994

To: JPACT

From: Andrew C. Cotugno, Planning Director

Re: Transportation Implications of Region 2040

While the Region 2040 Recommended Alternative is principally a land use framework, there are important linkages to transportation policy. The following are major transportation policy implications of adoption of the recommendation:

1. 2040 establishes the land uses that the transportation system is intended to serve. Development of the updated Regional Transportation Plan will be based upon serving the land uses called for in the Recommended Alternative.

2. The Recommended Alternative results in about a 5 percent reduction in VMT per capita. This takes into account the land use pattern, transit system, improved pedestrian environments and inclusion of parking factors oriented to the higher density destinations. Additional transportation actions will be needed to reach the target of 20 percent.

3. The Recommended Alternative implies a priority for transportation investment in key target areas, particularly the Central City, the designated Regional Centers, Industrial Sanctuaries, bus corridors and LRT station areas.

4. The Recommended Alternative includes a framework around which local governments could emphasize their development code changes in response to the Transportation Planning Rule requirements related to building orientation and pedestrian access. The higher density centers and corridors are the places where more stringent standards could be established, with lesser standards elsewhere.

5. Higher density locations are directly tied to the highest quality transit locations. As the transit system is refined, these two need to be linked in The Regional Framework Plan and local Comprehensive Plans.

6. The Recommended Alternative has the following implications for the three Access Oregon Highway routes; while 2040 does not make a final project decision for any of the three corridors, it does include important land use considerations:

   a. The Mt. Hood Parkway, the Sunrise Corridor and the I-5/99W Connector all provide important connections to growing "Neighbor Cities." Final decisions on these routes should be linked to reaching agreement with these cities on coordinating growth management with the metropolitan area.

   b. The route between these "Neighbor Cities" and the metro area should have very limited access in order to avoid having them simply grow together with the metro area.

   c. The Mt. Hood Parkway provides an important access route to a designated Regional Center. Access to areas within the UGB should be limited to this destination.

   d. The Sunrise Corridor crosses both planned Urban Reserve areas and Rural areas. Access should be limited to only those areas planned for urban expansion. The route should be established in a location compatible with this new urbanization.

   e. The Western Bypass from 99W to Sunset Highway is not needed to serve an urban expansion area. Conversely, considerable development is planned in the Highway 217 Corridor with the designation of Regional Centers in Beaverton and Washington Square. Multi-modal transportation improvement will be needed under any circumstance in this area. Two additional functions will have to be served with or without the Bypass: through access from the Sunset Corridor to the I-5 Corridor and dealing with urban traffic on rural Tualatin Valley roads.

7. LRT is identified in the Recommended Alternative in three categories:

   a. Planned LRT including Eastside, Westside and South/North from Clackamas Town Center to 99th, connecting the Regional Centers of Gresham, Beaverton, Hillsboro, Vancouver, Milwaukie and the Clackamas Town Center.

   b. Proposed LRT connecting to the Washington Square Regional Center (via two alternative routes: in the Highway 217 Corridor or Barbur) and to Oregon City, 134th/WSU and the Portland International Airport.

c. Possible High-Capacity Corridors which could be LRT to Forest Grove, Tualatin, Vancouver Mall, Lake Oswego and in the I-205 segment between Gateway and Clackamas Town Center.

8. Sandy and Newberg are identified as major growth "Neighbor Cities" while Canby and North Plains are not due to the EFU lands surrounding them. Access should be improved or limited accordingly.

9. Inner and Outer single-family neighborhoods are intended to be relatively low density due to transportation limitations.

10. Street connectivity will be sought to improve local circulation without excess demand on regional routes. A standard of approximately eight connections per mile is proposed.

11. Final adoption of 14,500 acres of urban reserves will affect road network and sizing at the edge of the UGB. The current study area of 22,000 acres must be narrowed to determine these effects.

12. Jobs/housing balance is important to minimize travel needs. Certain parts of the region remain out of balance and require further attention. Jobs/housing balance in "Neighbor Cities" is very important.

13. Transit access to Newberg requires further investigation, especially since it lies outside the Tri-Met District.

ACC:lmk

M E M O R A N D U M

METRO

Date: October 4, 1994

To: JPACT

From: Andrew C. Cotugno, Planning Director

Re: Region 2040

Attached are the following materials on Region 2040:

1. The newsletter describing the Recommended Alternative.

2. A summary of the results of the 2040 tabloid survey.

3. A resolution proposed for adoption of the 2040 Analysis of the Recommended Alternative. This provides the overall description, rationale and technical analysis supporting the recommendation. It is proposed to be adopted by resolution, stating the intent of Metro to pursue this overall framework.

4. An ordinance proposed for adoption of an amendment to RUGGO to incorporate the Growth Concept and associated definitions and requirements. This RUGGO amendment provides the guiding direction to development of Metro's Regional Framework Plan, including the RTP. RUGGO is adopted as a land use decision, will be submitted to LCDC for acknowledgement and is binding on Metro's subsequent land use decisions. Once adopted and acknowledged, the Regional Framework Plan will be binding on local comprehensive plans. The process over the next several years of developing the Regional Framework Plan will allow the opportunity to refine the Growth Concept and determine more specifically which elements are appropriate and feasible to include in the Framework Plan.

5. A JPACT amendment form to suggest possible amendments to the text and/or map.

The process for JPACT review and comment with assistance from TPAC is as follows:

September 30 . . . . . TPAC review
October 13 . . . . . JPACT review
October 14 . . . . . TPAC worksession to develop comments
October 28 . . . . . TPAC recommends final comments to JPACT
November 10. . . . . JPACT recommends comments to Metro Council

MPAC and the Future Vision Commission will be carrying out a similar review and comment. In addition, hearings are scheduled for the period between October 18-26. We will provide you with comments resulting from those reviews.

The October 13 JPACT meeting is an opportunity to receive Metro's overview of the recommendation and provide TPAC with overall guidance on subjects to develop into comments for JPACT's consideration.

ACC:lmk

Attachments

Recommended

continued from page 13

of all trips in 2040, and in some areas as high as 25 to 50 percent. There would be open spaces close to nearly every neighborhood. There still would be plenty of room for industrial job growth, with commercial areas being used more intensely and functioning better. Growth would be accommodated as inexpensively as possible. Our analysis shows that while it is not perfect, it is the best future scenario we have studied.

While this proposed plan is nearing completion and is headed for a policy discussion and decision, it is very important that you still react to it. How does this sit with your ideas about how the region should grow? Does this describe a place where you would like to live? Even more importantly, is this the place you want to leave for the next generation? Let us know how you would improve the recommended alternative. Use the reply card in the inside back cover to send us your comments, call your Metro councilor, or call the Region 2040 hotline, 797-1888.

We want to hear from you

Upcoming meetings

Planning Committee public meeting schedule

Tuesday, Oct. 18
6:30-9:30 p.m.
Oregon Institute of Technology
Conference Center
7726 SE Harmony Rd., Portland

Wednesday, Oct. 19
6:30-9:30 p.m.
Westminster Presbyterian Church
Great Hall
1624 NE Hancock, Portland

Thursday, Oct. 20
6:30-9:30 p.m.
Hillsboro High School
District Office Board Room
759 SE Washington, Hillsboro

Tuesday, Oct. 25
6:30-9:30 p.m.
Western Portland General Electric
Auditorium
14655 SW Old Scholls Ferry Rd.,
Beaverton

Wednesday, Oct. 26
6:30-9:30 p.m.
Gresham City Hall
1333 NW Eastman Parkway, Gresham

Other important dates

Monday, Nov. 28
Deadline for submission
of written testimony. Mail to:
Metro Council
Region 2040 – Recommended Alternative
600 NE Grand Ave.
Portland, OR 97232
attn.: Gail Ryder
Fax: 797-1793

Monday, Nov. 28
4 p.m.
Special Metro Council public
hearing on Planning Committee's
recommended alternative

Thursday, Dec. 8
4 p.m.
Regular Metro Council meeting,
formal adoption of recommended
alternative.

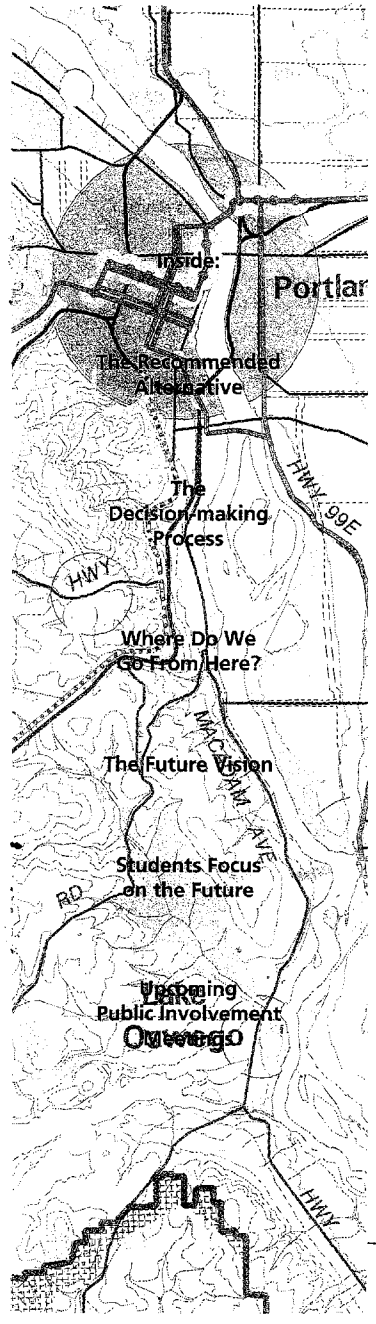
Printed on 50 percent recycled paper, 10 percent post-consumer waste *94341SG*

METRO

600 NE Grand Ave.
Portland, OR 97232-2736

ADDRESS CORRECTION REQUESTED

Bulk Rate
U.S. Postage
PAID
Permit # 6018
Portland OR



2040 Decisions

Metro Region 2040 Update *Fall 1994*

You Said It

Two years ago, we began Region 2040 by asking very basic, general questions about how our region should grow. We wanted to know people's regional values – which elements of our community should be protected and which things needed improving. We learned that, in general, people tended to value most highly a clean and accessible natural environment, freedom from excessive traffic congestion and quiet, safe neighborhoods.

As the Region 2040 program progressed, so did the types of questions we asked the public. We moved from the general to the more specific.

Earlier this summer, we narrowed the focus to four questions that identified possible ways to use land more efficiently inside the urban growth boundary, in order to keep those elements people said they valued the most. Through an intense public involvement effort – including the use of a direct mail piece and questionnaire sent to more than 500,000 households, a telephone hotline number, a youth involvement program, interviews with community leaders, a video, speaking engagements and open houses – we asked people to tell us how they felt about those four specific issues. Those questions asked people how they felt about:

"These are tough issues because people like to have their space ... I know I do."

- increasing development along transit lines
- redeveloping city centers
- decreasing the average size of new residential lots
- reducing the number of commercial parking spaces.

What you told us

More than 17,000 people responded to the questionnaire, and the response was almost evenly distributed across the region. We also received about 300

continued on page 2

METRO

Executive Officer
Rena Cusma

Metro Councilors

District 1	Susan McLain
District 2	Jon Kvistad
District 3	Jim Gardner
District 4	Richard Devlin
District 5	Mike Gates
District 6	George Van Bergen
District 7	Ruth McFarland
District 8	Judy Wyers, presiding officer
District 9	Rod Monroe
District 10	Roger Buchanan
District 11	Ed Washington, deputy presiding officer
District 12	Sandi Hansen
District 13	Terry Moore

To talk with your elected councilor about Region 2040 call 797-1540

Metro is the directly elected regional government that serves more than 1 million residents in Clackamas, Multnomah and Washington counties and the 24 cities that make up the Portland metropolitan area.

Metro is responsible for solid waste management; operation of the Metro Washington Park Zoo; transportation and land-use planning; managing and planning regional parks and greenspaces; and technical services to local governments. Through the Metropolitan Exposition-Recreation Commission, Metro manages the Oregon Convention Center, Civic Stadium, the Portland Center for the Performing Arts and the Expo Center.

Metro is governed by a 13-member council and an executive officer. Councilors are elected within sub-districts; the executive officer is elected regionwide.

For more information about Metro or to schedule a speaker for a community group, call 797-1510.

You said it

continued from page 1

letters from people who wrote eloquently and thoughtfully about their ideas for their region's future. About 600 people attended eight open houses around the region, nearly 4,000 people checked out a free copy of a Region 2040 video from area Blockbuster Video stores and libraries, and 600 students participated in a youth involvement program. The response was overwhelming, exceeding our highest expectations.

All responses have been categorized, counted and analyzed, and are being forwarded to the Metro Council. Additional public input this fall also will be sent directly to the elected councilors. Summaries of the public involvement report are available at Metro, 600 NE Grand Ave., Portland, or by calling 797-1888.

In examining the responses, we found that people tended to support more compact, transit-oriented development so that farm and forest lands could be preserved. The responses of 45 stakeholders, including such diverse interest groups as home builder associations, environmental organizations, and public school and housing officials, also tended to reflect concerns similar to those of the general public.

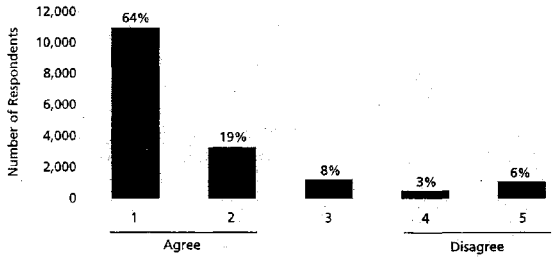
"I think smaller lot sizes can make perfect sense, but only if there are neighborhood parks or greenspaces."

In our summer public involvement effort, we asked for a rating of 1 to 5 on the questions, ranging from strongly agree to strongly disagree. For many people, however, a simple numbered rating did not say it all. Some sent maps, letters, articles and comments with their questionnaires. Many of these comments are included in this update. They drew on personal stories or technical solutions to offer their suggestions. Here is a summary of what you said:

Should we increase development along transit lines?

People enthusiastically endorsed the idea of increasing development along transit lines – 83 percent agreed, while only 9 percent disagreed. One of the most frequently noted reasons for supporting this was the potential increased use of mass transit.

Figure 1 Encourage development along transit lines



You said it

continued from page 4

Should we reduce the number of parking spaces?

Reducing the number of parking spaces showed a slight majority support (54 percent), but many of those answers were qualified by people suggesting that the reductions occur on a case-by-case basis. Many people preferred multi-level parking structures that would reduce the land needed for parking lots without decreasing the number of spaces. Others cautioned that mass transit should be a viable way to reach the businesses affected by a reduction of parking spaces.

Other concerns

For 10,000 of our respondents, simply filling numbers wasn't enough. They wrote in comments, suggestions and concerns. All these have been tabulated by category, and some interesting responses were included. Some of the most frequent suggestions included:

- preserve open space inside and outside the urban growth boundary
- slow or stop growth
- increase light rail and bus service
- hold the urban growth boundary
- create more bike ways
- revitalize city centers and neighborhoods, and restore rundown buildings

The number of people who responded, and the thoughtfulness they exhibited in answering the questions and expressing their opinions, was both overwhelming and encouraging. Given the competition in today's world to get and hold people's attention – especially about ideas to shape the community for the next 50 years – we are heartened but not surprised that the people of this region care so much about the place they call home.

As one citizen wrote, "I think the core question is what do we want the character of the region to be? I am concerned that we're becoming a generic urban sprawl community without preserving enough of what makes the area unique – green, trees, wildlife, arts and crafts, and friendly neighborhoods."

As we face the question of what we want the region to be, we also must ask the more difficult question of how it can be accomplished. Public involvement has been a valuable tool in shaping the decisions so far, and we strongly encourage you to stay involved as our future region takes shape.

We want to hear from you

Give us your comments on the recommended alternative.
Send to:

Region 2040
Planning Department
Metro
600 NE Grand Ave.
Portland, OR 97232-3726

REGION 2040
Decisions for Tomorrow

We always value your input, and hope you stay involved. Unless you note otherwise, we will continue to send you updates on growth management issues and ask for your opinion.

- ☐ Please remove my name from your mailing list. I do not want to continue receiving your mailings.
- ☐ Please add me to your mailing list.

Name _____

Street address _____

City _____ ZIP code _____

My comments on the recommended alternative: _____

Future Vision Will Guide Region

The Future Vision will address many of the issues facing the future of our region . . . and our children.

What lies in store for this region – known for its tremendous livability and aesthetic beauty – is a matter of considerable interest and discussion. Everyone wants to keep our future region livable. The dialogue about how to do that continues to be both lively and thought-provoking.

The mission of Metro's Future Vision Commission is to devise a vision that will guide the metropolitan region into the next 50 years and beyond. It will shape a vision – resulting in specific actions – that serves as a guiding light for citizens, regional leaders, businesses, interest groups, and educators who believe that, with hard work and forward-thinking, tomorrow can be even better than today.

What is the Future Vision Commission?

The commission is an 18-member, unpaid group whose members and alternates were appointed in March 1993 by the Metro Council, the governors of Oregon and Washington, and the Metropolitan Policy Advisory Committee. The commission will forward a recommended vision to the council in 1995. The council must adopt a vision by July 1, 1995.

Commission members bring to their task valuable perspectives and expertise in areas such as land development, finance, the arts, human services, the role of neighborhoods, citizen involvement, natural resources and transportation.

The Future Vision Commission was created as a result of the voter-approved 1992 Metro Charter, which states in part that:

"The Future Vision is a conceptual statement that indicates population levels and settlement patterns that the region can accommodate within the carrying capacity of the land, water and air resources of the region, and its educational and economic resources, and that achieves a desired quality of life."

How does the "vision" relate to Metro's other planning efforts?

The Future Vision is more general and covers a broader geographical area than Metro's other planning efforts. It attempts to set goals and standards by which other planning programs can be measured. The Future Vision looks at a nine-county* area in Oregon and Washington and asks: "What do we want to keep, change and add to the area during the next 50 or more years?"

Metro's Region 2040 program – which focuses on land-use and transportation planning through the year 2040 – is providing valuable information and analysis that will be used by the Future Vision Commission. The commision also is examining three technical papers on issues of vital importance to future livability: the carrying capacity of our natural and human resources, historic and potential settlement patterns that show where people might live, and changes and potential trends in the way people work in the future. The charter provides that the Regional Framework Plan – an outline of specific regional land-use elements – must address the Future Vision. This is of critical importance since the Regional Framework Plan will be binding upon local governments.

How do I get involved in shaping the Future Vision?

The Future Vision Commission meetings are open to the public, and public comment is encouraged. For meeting schedules or other information, call 797-1562. Written materials may be sent to commission members c/o Metro Planning Department, 600 NE Grand Ave., Portland, OR 97232, or by fax at 797-1794.

**All or parts of Cowlitz and Clark counties in Washington, and Clackamas, Columbia, Multnomah, Washington, Marion, Yamhill and Polk counties in Oregon.*

Although some people worried about having homes near transit lines, most favored having shops, homes and transit near one another. One citizen wrote, "I do not have a car and live in an area where I can walk to most essential services, and have three frequently running bus lines close by – it's great and should be a model for future development."

Many people were adamant, however, that while they liked the idea of concentrating development along transit lines, they did not want strip malls or endless blocks of retail development. Instead, many suggested that shops and homes be clustered around MAX stations or centrally located bus stops to form more aesthetically pleasing and pedestrian-friendly centers.

Many raised the concern of preserving the character of their neighborhood in the face of increased development along transit lines. Few people wanted to see their own neighborhood change drastically, which suggests that we should focus development around transit lines that already exist or are currently in the planning stage.

Should we redevelop city centers?

Redevelopment of city centers also was a popular idea. Many people felt that redeveloping rundown buildings could enhance the value of an area and that vibrant downtowns would make cities safer and shopping easier. A common suggestion was to remodel old buildings, rather than build new ones, thus preserving communities' sense of history and charm.

continued on page 4

Students Focus on the Future

Underwater cities and space shuttles may not be included as part of the recommended alternative, but those were a couple of the ideas that students had for how the region should grow. This spring, 25 elementary, middle and high schools brought Region 2040 questions to the classrooms as part of Metro's youth involvement program. More than 600 students offered their thoughts on what their neighborhood might look like in 50 years, expressing their ideas through essays, poetry, plays, rap music, maps, models, drawings and diaries.

"I want my neighborhood in the year 2040 to look like a park. My park would have a rainbow there."

For some, the possibilites were fanciful. One student wanted to live in a high-rise apartment with redwood treetops just outside her window. Another would have a neighborhood with no crime. Others imagined commuter space shuttles, parks on top of buildings, and automated farms. Some, however, took the opportunity to express their fears that pollution, pavement and traffic would prevail while trees, farms and quiet neighborhoods would vanish.

Many of the essays and letters focused on what we could do to keep those fears from being realized. The ideas were varied and sincere, ranging from technological solutions to simply being nicer to one another. One heartening theme united them – the need to think now about what the region will look like tomorrow. As one student wrote, "There's millions of questions that need answers. We must not sit around and ignore them."

"The year is 2040. The land is dry and dead. The hills were once forests. The dumps were once parks for kids to play in. The waterwastes were once ponds, oceans, seas, lakes and pools."

You said it

continued from page 3

Figure 2 Encourage growth of city centers

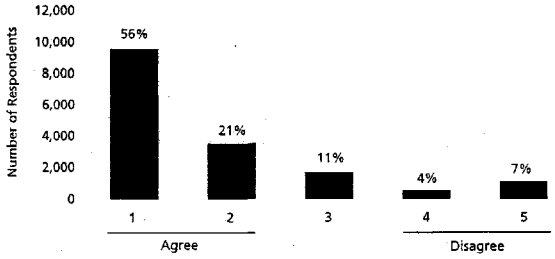


Figure 3 Reduce average new lot sizes

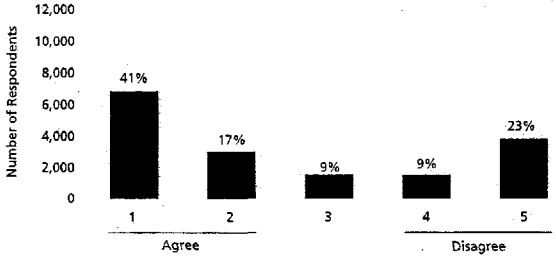
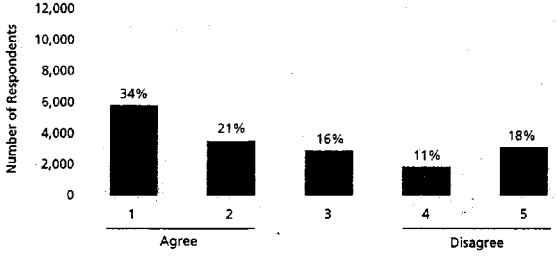


Figure 4 Reduce the amount of parking



"(I'm) tired of seeing new houses built while old neighborhoods are falling apart . . ."

Should we decrease average new residential lot size?

About 58 percent, a slight majority, of the people who responded said they supported the idea of reducing the size of new residential lots. Opposition to this idea, however, was fairly high at 32 percent. No other proposed action received that high a percentage of opposition, suggesting that we must provide a variety of different housing options so that people can have choice.

A key concern among people who responded on this issue was the need to have play and recreational space for their children and pets. Some of the solutions people offered included making the houses smaller so that yards could be bigger or creating more small neighborhood parks within easy walking distance. Fears of increasing crime and tension among neighbors were two primary reasons people opposed reducing average new lot sizes. Others, however, felt that a more compact neighborhood would increase efficiency for police and fire service.

People also indicated that it was important to have affordable housing, a distinct neighborhood character and the option to own rather than rent apartments and condominiums.

continued on page 15

munities such as Sandy, Canby and Newberg will be affected by the Metro Council's decisions about managing the region's growth. Up to 86,000 people would be accommodated in these neighboring cities, according to the recommended alternative, which recognizes that cooperation between Metro and these communities is necessary to address common transportation and land-use issues.

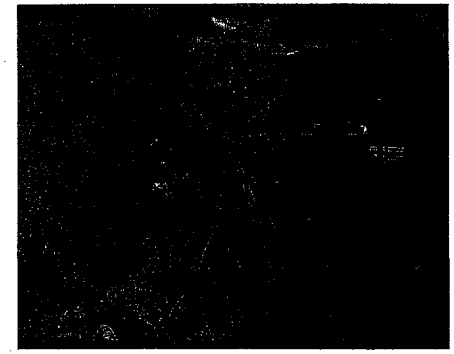
Transportation improvements designed to fit land use

The transportation system for the recommended alternative has many of the same elements as the growth concepts analyzed earlier – but with some significant differences.

First, the recommended alternative assumes that the Sunrise Corridor and the Mt. Hood Parkway will be completed in the next 50 years. The Sunrise Corridor would become a new regional highway from I-205 to the Damascus area and would connect with Highway 26. There are about 150 other road system improvements included in the recommended alternative.

The roadways indicated in the recommended alternative map represent just a concept and does not show actual alignment. Access points, or interchanges, would be placed to reinforce the proposed land uses. In the Sunrise Corridor, for example, there would be an interchange providing access to Damascus, which is designated as a town center, but there would be very few additional interchanges.

The Mt. Hood Parkway is shown within the present urban growth boundary and would link I-84 with Highway 26. It, too, is designed to have limited access to support land uses, particularly to downtown Gresham, which would be a regional center.



Designating land as "rural reserve" is one way to protect open space.

The Western Bypass has only those segments included in the recommended alternative that are within the urban growth boundary. Specifically, the link between I-5 and Highway 99 in the Tualatin/Sherwood area would be included, as are arterial system improvements that increase accessibility from Highway 26 to the Tualatin Valley Highway in the Hillsboro area. In addition, improvements to Highway 217 would be included. The segment that crosses the Tualatin Valley farmland, however, would not be included.

In our earlier Region 2040 analysis, we found that several of the light-rail lines would not have enough riders to be cost effective. So we reduced the number of light-rail lines and changed some from exclusive light-rail to high-capacity transit. We added transit more judiciously in the recommended alternative and kept transit service to less than 12,000 hours.

How your ideas became the recommended alternative

When we started Region 2040 we began by asking what you valued most about this region. The recommended alternative is our best attempt to include what we heard from you and what we have learned through technical analysis. We heard that you value nature and want it nearby. As a result, we included substantial rural reserves outside the urban growth boundary and open space inside the boundary so that both our rural environment and urban areas are green and natural. You indicated a strong preference for transit, and the recommended alternative would create a region that heightens the sense of community and also makes transit, walking, and biking more efficient and convenient. You indicated that you expected increased density along corridors and in centers but didn't want it in your neighborhoods. To the extent possible, we designed the recommended alternative accordingly.

We believe this recommended plan, although it cannot meet everyone's wish list, is instrumental in achieving a strong growth management policy. Under the recommended alternative, transit ridership is projected to quadruple – up to 570,000 riders a day – significantly more than any of the 2040 concepts. Walking, biking and transit combined would account for 13 percent

continued on page 16

Recommended

continued from page 10

alternative. The recommended alternative calls for main streets to grow from 1990 levels of 36 people per acre to 39 per acre.

Neighborhoods serve a key function

Residential neighborhoods would remain a key component of the recommended alternative but would *not* include high-rise buildings – a common fear expressed by people throughout our public involvement efforts. Neighborhoods would fall into two basic categories. Inner neighborhoods are found in Portland and the older suburbs of Beaverton, Milwaukie and Lake Oswego, and would include primarily residential areas that are accessible to employment. Average new lot sizes would be smaller (5,720 square feet) to accommodate densities increasing from 1990 levels of about 11 people per acre to about 14 per acre. Inner neighborhoods would trade smaller lot sizes for better access to jobs and shopping. Most of the employment would be neighborhood- based such as schools, childcare and some small businesses.

"We need to preserve our urban forests and streams to preserve our sanity, what wildlife we have left and our water quality."

In contrast, new areas in the outer neighborhoods would be farther away from large employment centers and would have larger lot sizes (7,560 square feet) and lower densities. Examples include outer suburbs such as Forest Grove, Sherwood and Oregon City, and any additions to the urban growth boundary. From 1990 levels of nearly 10 people per acre, outer neighborhoods would increase to 13 per acre.

Employment areas would be protected

The recommended alternative plays a major role in strengthening the regional economy, primarily through protecting key industrial and employment areas. These areas would be set aside exclusively for industrial activities. They include land-intensive employers, such as those around the Portland International Airport, some areas along Highway 212/224, and along Port of Portland shipping facilites. From 1990 densities of 8.6 employees per acre, the recommended alternative would include 8.9 employees per acre – more dense than today, but still providing substantial space devoted exclusively to industrial use.

Other employment centers would be designated as mixed-use, combining various types of employment and including some residential development. Densities would rise substantially from 1990 levels of about 11 people per acre to 20 people per acre. It's important to industrial uses and employment centers, however, that goods to and from these areas can be transported easily.

Minimal urban reserves would be added

One important feature of the recommended alternative is that it would accommodate all 50 years of forecasted growth through a relatively small amount of urban reserves. Urban reserves consist of land set aside outside the present urban growth boundary for future growth. The recommended alternative calls for urban reserves of about 15,000 acres – substantially less than in growth concepts studied earlier in the Region 2040 process. In addition, only 22 percent of this land is presently designated for exclusive use as farm land, reflecting the public's desire to use as little farm land as possible for use as urban reserves.

Neighboring communities would grow

The recommended alternative also recognizes that neighboring cities surrounding the region's metropolitan area are likely to grow rapidly. Com-

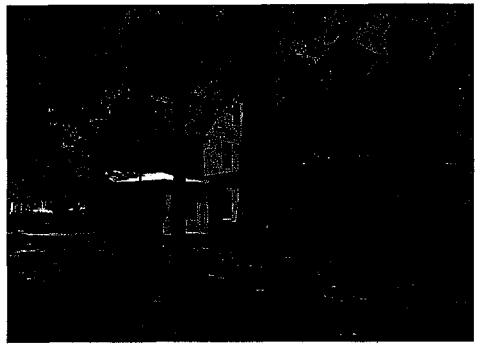
New household and employment growth

	Employment	Housing
City center	22%	5%
Regional centers	9	3
Town centers	7	3
Corridors	19	33
Main streets	3	2
Inner neighborhoods	8	21
Outer neighborhoods	7	17
Mixed-use employment centers	12	5
Industrial areas	13	1

Recommended Alternative

Preserving our quality of life

Region 2040's "recommended alternative" is how we describe the end result of more than two years of working on Region 2040. The recommended alternative is the Metro executive officer's recommendation about how and where the region should grow. This fall, the Metro Council will closely examine the recommended alternative, listen to final public input and make a growth policy decision by the end of the year.



Residential neighborhoods continue to be a key part of the recommended alternative.

We derived the recommended alternative through two means: from comments we've heard from the public and from the technical analysis of the growth concepts created earlier in the Region 2040 process.

The basic philosophy we've heard from the public and have used to build the recommended alternative is: preserve our access to nature and help build better communities. In general, people consistently have expressed concern about open space, transportation mobility for people and goods, a strong sense of community and a sustainable economy. By addressing these fundamental concerns, the recommended alternative can help guide growth so that our region remains a wonderful place to live.

Where is everyone going?

Our forecast of 1.1 million additional people is for the four-county area (Multnomah, Clackamas, Washington and Clark counties), with about two-thirds, or 720,000, of them locating within Metro's boundary. Clark County is expected to receive about 275,000 additional people, while the neighboring cities are forecast to receive 40,000. Rural areas of the three Oregon counties are forecast to grow by 18,000 people.

Using compact development to reduce land consumption

Compact development is important to many people because it helps preserve farm and forest land outside the urban growth boundary. The more efficient we are in using land inside the urban growth boundary, the less rural land outside the boundary we have to convert to urban uses. The recommended alternative calls for more compact development in city centers and good quality transit service. It includes substantial development in downtown Portland, regional centers, town centers and transportation corridors where transit service currently exists or is being planned.

Rural reserves protect open space

Although there are substantial areas both within and around the urban area that are undeveloped, they are not likely to remain so without some effort to protect them. The recommended alternative proposes creating more permanent public and private open spaces.

We refer to lands designated as permanently rural as "rural reserves." They are areas outside the present urban growth boundary and along highways that connect the region to neighboring cities. They will not be developed in the foreseeable future.

These rural reserves would support and protect farm and forestry operations. The reserves also would include some purchase of natural areas adjacent to rivers, streams and lakes to make sure the water quality is protected and wildlife habitat enhanced. Large natural features, such as hills and buttes, also would be included as rural reserves because they buffer developed areas and are poor candidates for compact

continued on page 6

Glossary of terms

Main streets – Neighborhood shopping areas along a main street or at an intersection, sometimes having a unique character that draws people from outside the area.

Inner neighborhoods – Areas in Portland and the older suburbs that are primarily residential, close to employment and shopping areas, and have slightly smaller lot sizes and higher population densities than in outer neighborhoods.

Outer neighborhoods – Areas in the outlying suburbs that are primarily residential, farther from employment and shopping areas, and have slightly larger lot sizes and lower population densities than inner neighborhoods.

Neighboring cities – Cities that are outside Metro's jurisdiction but will be affected by the growth policies adopted by the Metro Council.

Neighborhood centers – Retail and service development that surrounds major MAX stations and other major intersections, extending out for one-quarter to one-half mile.

Recommended alternative – The Metro executive officer's recommendation for long-term growth management of our region, including suggestions for where and how much the urban growth boundary should be expanded, what densities should characterize different areas, and which areas should be protected as open space.

Regional centers – Areas of mixed residential and commercial use that serve hundreds of thousands of people and are easily accessible by different types of transit. As identified in the recommended alternative, there are six regional centers: Gresham, Beaverton, Washington Square, Hillsboro, Milwaukie and Clackamas Town Center.

Rural reserves – Areas that are a combination of public and private lands outside the urban growth boundary, used primarily for farms and forestry. They are protected from development by very low-density zoning and serve as buffers between urban centers.

Town centers – Areas of mixed residential and commercial use that serve tens of thousands of people.

Transportation corridors – Residential and retail development concentrated along major arterials and bus lines.

Urban growth boundary (UGB) – A line around the metropolitan region that indicates land that already is or can be developed at urban densities. Metro controls the urban growth boundary and is responsible for deciding whether to make expansions to the boundary.

Urban reserves – Land outside the present urban growth boundary that later could be included inside the boundary to accommodate future growth.

High capacity transit – Transit routes that may be either a road designated for frequent bus service or for a light-rail line.

Open space – Publicly and privately owned areas of land, including parks, natural areas and areas of very low density development inside the urban growth boundary.

Recommended

continued from page 5

urban development. Existing rural residential developments and lots would remain as they are.

Rural reserves are designated in areas that are most threatened by new development, that separate communities (such as the land between Gresham and Sandy or between Oregon City and Canby), or exist as special resource areas (such as the Columbia Gorge, Sauvie Island or the Tualatin Valley).

The primary means of achieving rural reserves would be through voluntary agreements among Metro, the counties, neighboring cities and the state. These agreements would prohibit extending urban growth into the rural reserves and require that state agency actions are consistent with the rural reserve designation.

Open spaces inside the present UGB

Areas inside the present urban growth boundary also would be set aside as permanent open space, ensuring substantial natural area opportunities for people, protection of water quality and connections to nature and the environment. Some of these open spaces would be vistas of trees or natural countryside with limited access. Other open spaces would be publicly owned and much more accessible to those who seek a respite from the urban landscape.

About 35,000 acres of land and water inside today's urban growth boundary are included as open spaces in the recommended alternative. We could achieve these open spaces by a combi-

continued on page 10

Where Do We Go From Here?

Once the Metro Council adopts a regional growth policy and Region 2040 is then completed, what happens next? Where do we go from here?

Planning for the region's future requires constant revising and refining to meet the changing needs of the communities it serves. The growth management policy presented in the recommended alternative represents an important part – but by no means the *only* part – of a multi-faceted regional growth management effort.

The next step in Metro's planning program is to adopt the Future Vision by July 1995. While that's being completed, we will begin implementing Region 2040. We will do that by developing the Regional Framework Plan, the charter-mandated plan that the Metro Council must adopt by Dec. 31, 1997. The framework plan will outline the specifics about how the region and local communities will implement the Region 2040 growth policy.

The Regional Framework Plan will address elements such as: the Regional Transportation Plan, urban reserves that will be used for future growth, rural reserves that will allow neighboring cities to remain separate and distinct from the metropolitan area, development of centers and corridors, water resource management, and parks and open space.

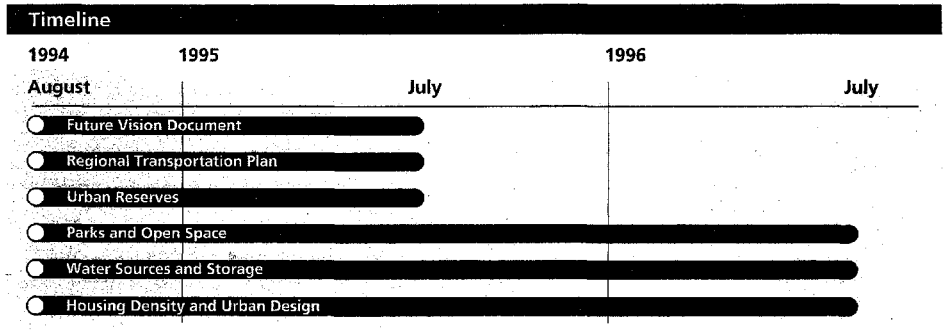
The framework plan also will be used and updated in conjunction with other Metro-related planning programs, including the work being done now by the Future Vision Commission. (See article on Future Vision Commission.) The Regional Framework Plan will be updated periodically, and the Future Vision work must be updated at least every 15 years. By systematically updating these two important planning programs, the region will have the value of guidelines that reflect current needs.

Metro Planning Department staff now is developing a draft workplan for the Regional Framework Plan. The Metro Council is scheduled to approve the workplan in December as part of the Region 2040 decision.

Local governments also will be involved in helping develop the workplan, primarily through representatives on the Metropolitan Policy Advisory Committee. The committee will make a recommendation to the Metro Council about the proposed workplan.

Once the Metro Council adopts the Regional Framework Plan, and it is approved by the state, the plan will be binding upon local governments.

Metro's work on the Regional Framework Plan, as in the Region 2040 process, will be done in conjunction with the advice and input of local governments, businesses, citizens, and important advisory groups. As always, we will keep you informed of our progress and involve you in key decisions.



Recommended

continued from page 6

nation of ways. Some areas could be purchased by public entities, such as Metro's Greenspaces program and local park departments. Others may be donated by private citizens or by developers of adjacent properties to reduce the impact of development. Still others could be protected by very low-density residential zoning, clustering housing on portions of the land while leaving important features as common open space.

Central city as the focus for density and transit

Let's look at how the recommended alternative would accommodate more compact development. First, it proposes encouraging substantial development and redevelopment of downtown Portland as the region's city center. This supports the region's primary existing center – with its investments, services and sense of community – and helps minimize the impact of higher density in other areas.

Under the recommended alternative, downtown Portland would keep pace with the rest of the region in employment growth. It would grow at the same rate as the rest of the region and would remain the location of 20 percent of regional employment. To do this, downtown Portland's 1990 density of 150 people per acre would increase to 250 people per acre. Improvements to the transit system network would provide additional mobility to and from the city center.

Regional centers are on the move

The recommended alternative proposes six regional centers (existing areas that serve hundreds of thousands of people): downtown Gresham, downtown Beaverton, Washington Square, Clackamas Town Center, downtown Milwaukie and downtown Hillsboro. These centers would become the focus of compact development, redevelopment, and transit and highway improvements. From the current 24 people per acre, the recommended alternative would allow up to 60 people per acre. To achieve this, new commercial developments would average about 100 employees per acre, and housing would average about 50 dwelling units per acre.

"I am adamantly against building additional freeways; they only further dissect communities and develop an even greater dependency on the automobile. It is critical to provide alternatives that encourage less reliance on the automobile."

Transit improvements would include light-rail and bus service to all regional centers. Highway improvements also would focus on ensuring that these centers are attractive places to conduct business. Eventually, these centers would grow to the density of downtown Salem or Corvallis – about one-third of downtown Portland's density, but three times more dense than today.

Town centers fill local needs

Smaller than regional centers and serving tens of thousands of people, town centers are the third type of center with compact development and transit service. They would provide local shopping and employment opportunities to a surrounding market area of about 2.5 miles. Examples include the downtowns of Lake Oswego, Tigard and Oregon City. The 1990 density of an average of 23 people per acre would nearly double – to about the current densities of development along Hawthorne Boulevard and in downtown Hillsboro.

Corridors also make use of transit

Corridors are not as dense as centers but are located along good quality transit lines. An example of a present-day corridor is McLoughlin Boulevard. Some corridors are laid out in a linear design, while others are laid out in a more circular pattern. Each provides a place for densities that are somewhat higher than today and are convenient to transit. Corridors would grow from 1990 densities of 18 people per acre to as many as 24 per acre. Development would average 13 dwelling units per acre of 28 employees per acre – densities typical of rowhouses, duplexes and most office buildings today.

Main streets make a comeback

During the early decades of this century, main streets that were served by transit and characterized by a strong business and civic community, were a major land-use pattern throughout the region. Examples remain in Hillsboro, Milwaukie, Oregon City and Gresham, as well as the Westmoreland neighborhood and along Hawthorne Boulevard. Today, these areas are undergoing a revival and provide an efficient and effective land-use and transportation

continued on page 12

Decision Making

How will the Region 2040 decision be made?

The 13 members of the elected Metro Council will consider a recommendation made by Metro's executive officer. The final decision-making phase, which will include considerable public input, will occur this fall. The council will adopt a 50-year growth management policy by December 1994. This policy will be an amendment to the Regional Urban Growth Goals and Objectives that were adopted in 1991.

The decision phase will include extensive review by the council Planning Committee, recommendations from various regional advisory committees, and a series of hearings devoted exclusively to public testimony. Finally, the Metro Council will use the volume of public testimony, previous public input, technical information, and recommendations from committees and local governments to adopt the region's 50-year growth management policy.

A schedule of public meetings for the council Planning Committee and the full Metro Council is on the back cover.

How can I get more information about the recommended alternative?

A summary and map of the recommended alternative are included in this Region 2040 Update. If you would like more detailed technical information, call our Region 2040 hotline at 797-1888 and ask for our "Region 2040 Decision Kit."

Both citizens and technical advisors have helped to shape the recommended alternative.

How will the decision about the recommended alternative affect me?

The adoption of a Region 2040 growth management policy will guide future regional decisions about the urban growth boundary, land-use patterns and transportation systems. Once the Region 2040 growth policy is adopted, Metro will begin working with local governments, citizens, businesses and interest groups to develop a specific regional framework plan.

How can I get my ideas across?

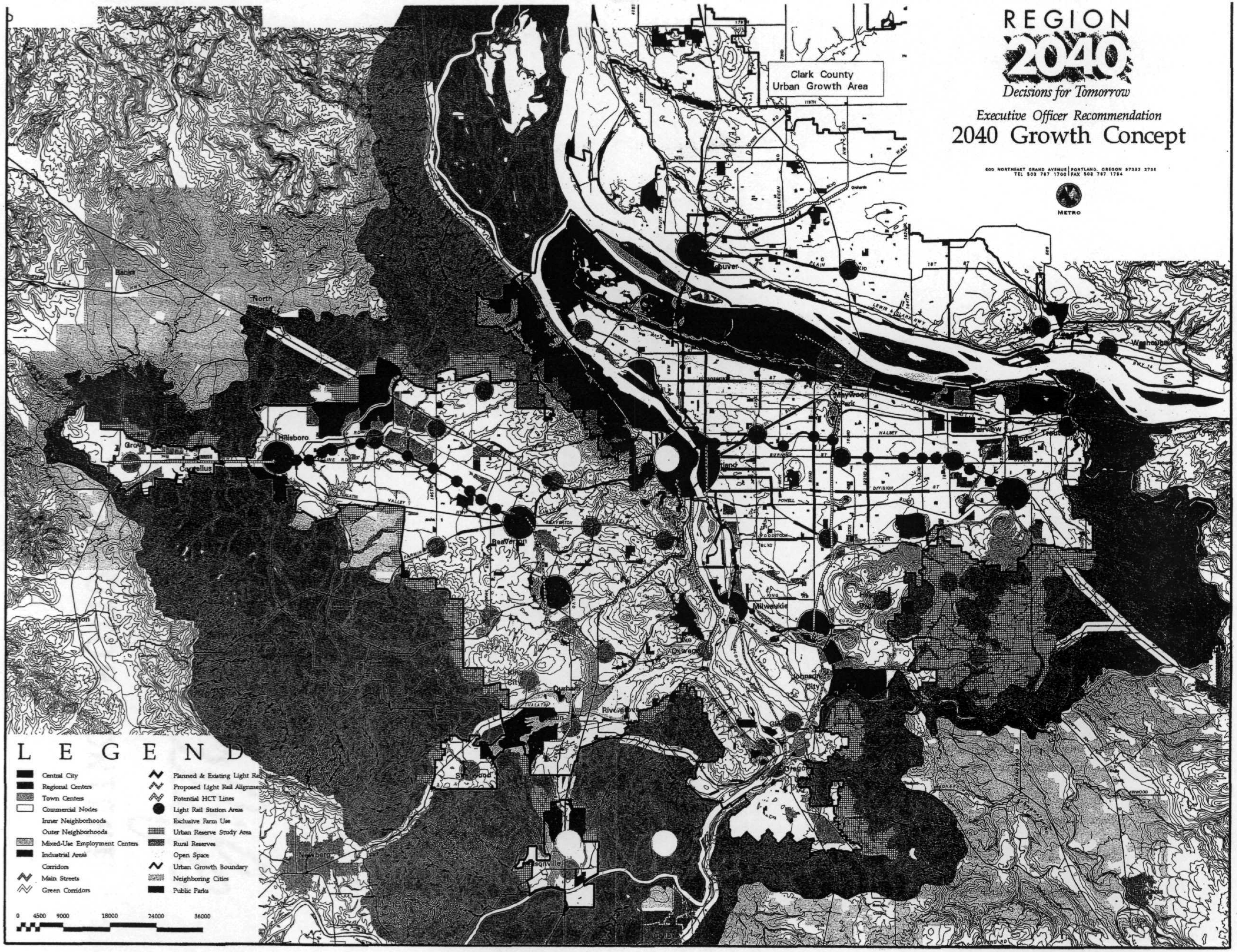
You still have opportunities to comment on the recommended alternative now and on the final changes it will undergo as it becomes the region's growth management policy for the next 50 years. Here are the ways that you can participate in the decision:

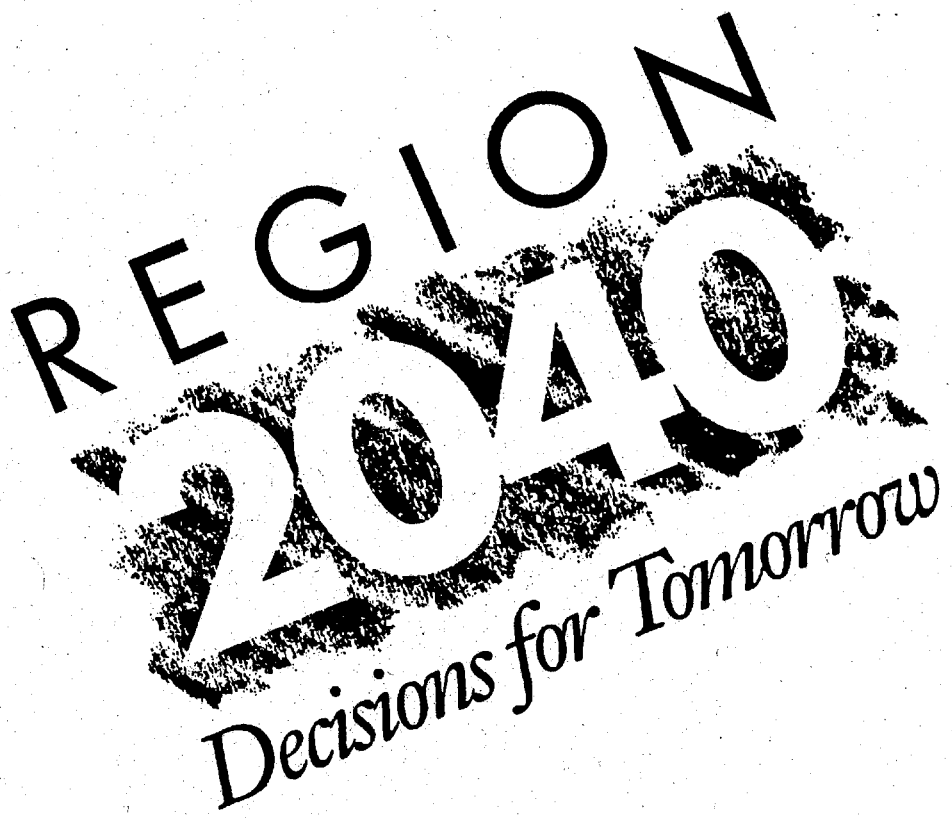
- Attend or speak at public hearings, advisory committee meetings and council work sessions.
- Write to the Metro Council, Region 2040 – Recommended Alternative, 600 NE Grand Ave., Portland, OR 97232, attn. Gail Ryder.
- Contact your local government officials. They are our partners in this process. Let them know what you think.
- Fax your comments to us at 797-1796. All materials should be labeled Region 2040 – Recommended Alternative.
- Call our Region 2040 hotline at 797-1888 to request information or leave a comment.

What's the deadline for comments?

The sooner the better. The final date for written comments to the Metro Council is Nov. 28. The council is scheduled to make the final decision on Dec. 8, 1994.

Thank you for taking the time to participate. We guarantee it will make a difference.


REGION
2040
Decisions for Tomorrow
Executive Officer Recommendation
2040 Growth Concept
600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1700 | FAX 503 797 1794
METRO
Clark County
Urban Growth Area
Hillsboro
Beaverton
Milwaukie
LEGEND
Central City
Regional Centers
Town Centers
Commercial Nodes
Inner Neighborhoods
Outer Neighborhoods
Mixed-Use Employment Centers
Industrial Areas
Corridors
Main Streets
Green Corridors
Planned & Existing Light Rail Lines
Proposed Light Rail Alignments
Potential HCT Lines
Light Rail Station Areas
Exclusive Farm Use
Urban Reserve Study Area
Rural Reserves
Open Space
Urban Growth Boundary
Neighboring Cities
Public Parks
0 4500 9000 18000 24000 36000



Region 2040 Public Involvement Report

Prepared by:
Cogan Owens Cogan
Pacific Rim Resources
Metro Planning Department

Portland, Oregon
August 1994

METRO

TABLE OF CONTENTS

INTRODUCTION

Metro is the regional government for the metropolitan area of Portland, Oregon. As part of its responsibilities for managing regional transportation and urban growth, Metro is conducting Region 2040, an evaluation of how the region could grow, and what policies are available to manage growth. This "Summary of Public Involvement" outlines the results of public involvement activities conducted from May through July, 1994. The purpose of these activities was to obtain public input on growth management strategies.

This extensive public involvement process used many techniques to help the people in the region become aware of the facts about potential growth and participate in framing alternative strategies. The results -- from higher than anticipated responses to questionnaires, attendance at public forums and other participation and feedback opportunities -- are indicative of a successful, multi-faceted program. The variety of public participation activities included the following:

- Production of television and newspaper ads alerting the public to the Metro Region 2040 tabloid that they would receive in the mail.
- Production and distribution of a Metro Region 2040 tabloid to each household in the region (over 500,000). This tabloid described the issues and possible growth alternatives and included a questionnaire. Close to 17,000 questionnaires returned via mail, fax or phone.
- Eight public open houses conducted throughout the region, with input solicited through 21 small group workshops, individual responses to randomly posted questions, and questionnaires completed at the open houses or returned by mail.
- Interviews with 45 regional stakeholders.
- More than 700 telephone calls to the Region 2040 hotline.
- Checkout of nearly 4,000 free Region 2040 videos at Blockbuster Video stores.
- Airing of the video on regional cable TV stations.
- Participation by more than 600 students from 25 public and private schools in a youth involvement project to depict their vision of the region's future.

In addition to these activities this summer, Metro Councilors and staff spoke to more than 100 business, environmental, civic, social, and educational groups and neighborhood associations over the past year. Metro staff also participated in more than 20 community events and over 25,000 newsletters were distributed to interested individuals.

This report summarizes and analyzes the collective results of (1) the tabloid questionnaires, (2) public open houses, (3) stakeholder interviews, and (4) youth involvement project.

FINDINGS

1) Respondents and participants in all these activities generally support the following:

- Holding the current Urban Growth Boundary (UGB) in place as a means of reducing sprawl and conserving open space and resource lands (farm and forest land).
- Implementing most of Metro's proposed "building blocks," particularly establishing greenbelts and encouraging development in existing neighborhoods and close to transit.
- Reducing the amount of traffic and congestion in the region and encouraging alternative transportation modes.
- Retaining open space both inside and outside the UGB.
- A combination of increasing density within the UGB and encouraging some growth in neighboring cities.
- The need for ongoing public education on the tradeoffs inherent in the decisions about how growth in the region will be managed.

2) A significant number of participants do not believe that growth is necessarily inevitable. They feel that growth should be limited or controlled, although most do not have concrete suggestions for accomplishing this. Some say that, by accepting growth as inevitable and planning for it, Metro is encouraging growth.

3) There is a wide range of opinions about lot sizes, with many favoring smaller lot sizes and higher density and others wanting their "one acre in the country", or believing that other people want that. As might be expected, this opinion is strongly correlated with where people currently live. More urban residents, those living downtown or in close-in Portland neighborhoods, favor higher densities, while suburban and "exurban" residents want more space.

4) Many participants are well-informed about growth related issues. Many also are ready to move beyond Metro's current discussion and talk about implementation. A significant number support mixed-use, transit-oriented-development, more pedestrian and bicycle facilities, and fewer Vehicle Miles Traveled (VMTs). Others are more resistant to change and favor a more market-driven approach.

5) Participants generally support the neighboring city/greenbelt concept but many are skeptical about the region's ability to actually implement it for these primary reasons:

- They do not believe that zoning regulations can keep land within the greenbelt areas from being developed and fear an eventual sprawling together of neighboring cities and the Portland metropolitan area.

- They think it is impractical to expect most people to be able to both live and work in neighboring cities, resulting in increased congestion on the roads and, consequently, increased pressure to develop those areas.

6) Stakeholders are generally the most supportive of Metro's proposals; tabloid respondents are the least supportive; open house attendees are somewhere in the middle. Of the open house participants, Clackamas County participants are the least supportive and Multnomah County the most favorably inclined, with Washington County residents in between. However, the lack of a valid sample and the fact that participants did not necessarily live in the county in which the open house they attended was located, mitigates a firm conclusion from their responses.

7) Participants have many opinions and were eager to express them. For example, close to two-thirds of the 17,000 people returning tabloid questionnaires provided additional written comments or suggestions. Several hundred letters were sent directly to Metro and Metro received 700 calls on the Region 2040 phone comment and information hotline.

DESCRIPTION OF PUBLIC INVOLVEMENT PROCESS

The Region 2040 public involvement process builds upon two earlier phases of public involvement and is based on the following objectives:

- Inform and secure input from the public as to the tradeoffs associated with the range of growth concepts.
- Provide creative and meaningful opportunities for public response during the concept shaping, evaluation and decision-making processes.
- Increase the database of citizens knowledgeable on growth management issues and the Region 2040 program.
- Expand the range of public involvement over the previous levels in earlier phases.
- Seek expanded involvement of local, state and federal officials and members of the business community.
- Promote greater general public awareness of Metro through the Region 2040 program.
- Link the Region 2040 program with other related planning programs as appropriate, such as Greenspaces and the South/North Transit Corridor Study.

As noted in the introduction, a variety of public participation activities were utilized to accomplish these objectives. In early June, television and newspaper ads were placed in local broadcast and print media. The purposes of these ads were to inform the public of growth issues, alert them to the Region 2040 tabloid they would receive in the mail, and encourage them to complete a questionnaire included in the tabloid.

Also in early June, over 500,000 copies of this tabloid were sent to each household in the Portland metropolitan region. The tabloid was designed to provide information on Metro's Region 2040 growth management program and to illustrate some of the opportunities and tradeoffs this region faces as it accommodates the projected growth. Each tabloid included an opportunity to provide feedback on a set of four growth management strategies. Readers were asked to rank, on a scale of 1 to 5, whether they agree or disagree with each proposed strategy. They were also given an opportunity to provide additional written comments. Nearly 17,000 responses were returned.

To provide additional information and to examine growth management issues in more detail, Metro produced a 15-minute video. The video could be checked out for free at area Blockbuster Video stores and was also shown on cable television stations throughout the region. Close to 4,000 people checked out the video.

Metro also established a phone comment and information line for people who wanted to obtain information or to comment on growth issues. Callers could also respond to the tabloid questions via the phone line. More than 700 people called to request information or to leave a comment. Of those 700 callers, more than 100 called to respond to the tabloid questionnaire.

Eight open houses were conducted throughout the region during the later part of June. "Stations" common to each open house either provided information or solicited input on strategies and concepts for managing regional growth. Twenty small group discussions were also held to discuss the advantages and disadvantages of the alternative growth concepts and to identify a preferred growth scenario. About 600 people attended these open houses and more than 350 questionnaires were returned by open house attendees.

In late June and early July, interviews were conducted with 45 "stakeholders" -- professional, civic, community, business, educational and environmental leaders throughout the metropolitan region. Metro staff and the consultant team selected a pool of potential interviewees from a broad range of perspectives, both organizationally and geographically. Following a similar format as the questions in the tabloid, interviewees were asked to rank whether they agreed or disagreed with a set of growth management strategies, including those strategies from the tabloid. Each of the interviewees was also given an opportunity to explain their reasoning behind a particular viewpoint. Each interviewee also had the opportunity to describe a preferred alternative, discuss critical implementation issues, and offer advice to Metro on the most important issues that need to be considered in deciding on a recommendation.

More than 600 students from 25 public and private schools in the region participated in the Region 2040 Youth Involvement Project. The purpose of this project was to encourage elementary, middle and high school students to imaginatively express their ideas for the region's future. Student projects included three-dimensional model cities, posters, paintings, written pieces such as poetry and essays, and performance art. Displays were featured in two press conferences, at the Region 2040 open houses, and at Metro headquarters. Educational service districts in each county publicized the project and distributed information to schools within their districts. The project was co-sponsored by Cellular One, the Naito family, Northwest Natural Gas, and Portland General Electric.

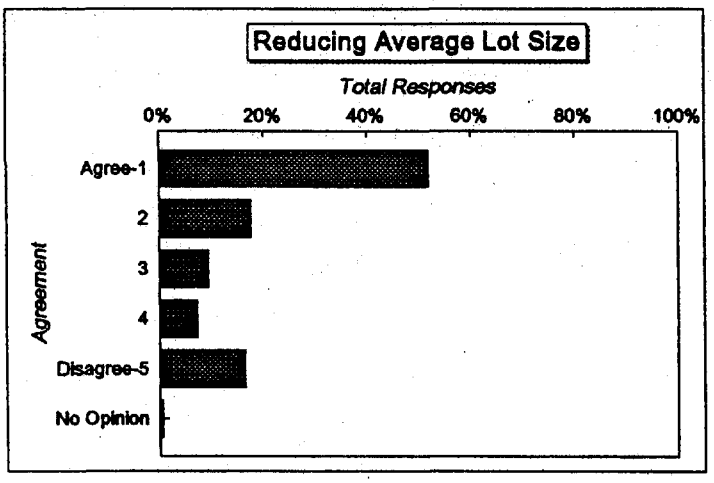
COMMON GROWTH MANAGEMENT STRATEGIES

Each public involvement activity solicited public input in a different fashion to provide different opportunities for response to the broad range of strategies and options for managing regional growth. The questions from the tabloid were used throughout the process and are the common thread among all activities. Specifically, respondents were asked to rank whether they agreed or disagreed with each of four growth management strategies. Results in the accompanying tables are calculated by percentage of respondents.

Reducing Average New Residential Lot Sizes

Close to 70% of all respondents support (rank 1 or 2) a policy to reduce average new residential lot size from the current 8,500 to 7,000 square feet (See Figure 1), with stakeholders the greatest supporters at almost 78%, followed by open house participants at 71% and tabloid questionnaire respondents at 58%. Of the four common strategies, reducing average lot size received the largest opposition, e.g., 32% of tabloid questionnaire respondents ranked it a 4 or 5. Support for this strategy is highest among the Metro and Beaverton open house participants and significantly higher for Multnomah County (65%) than for Clackamas (52%) and Washington County (51%) tabloid responses. (See Appendix, Table 1)

Figure 1



This strategy generated the greatest number of comments among the four specific growth management strategies. Those in support believe that it will help maintain the current UGB, reduce sprawl, provide additional open space, contribute to a more efficient provision of services, and provide densities necessary to support transit and reduce auto use. This support is tempered by the concern that a range of lifestyle choices continue to be provided in the

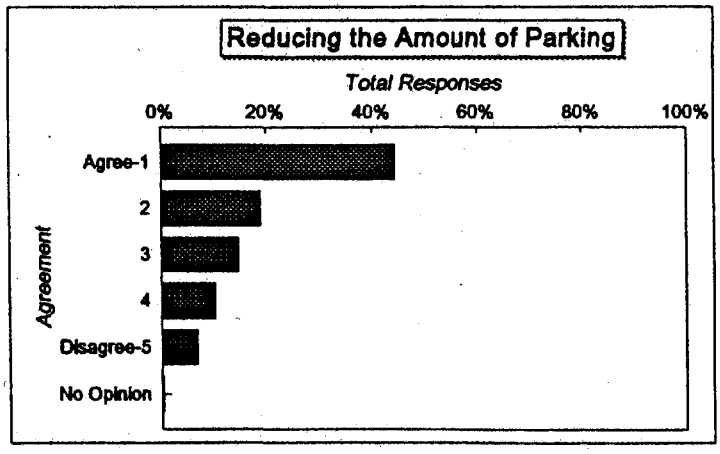
region, e.g., that larger lot sizes are not entirely precluded. Numerous people suggest that smaller average lot sizes (less than 7,000 sq. ft.) be considered. Others say that higher densities will require design standards and additional open spaces in order to maintain the region's quality of life.

Opposition to this strategy centers on concerns about privacy and overcrowding and a belief that lot sizes should be determined by the market rather than government mandates. Opponents fear that higher densities will lead to more social problems and argue that people need more space or that smaller lots leave children with inadequate space to safely play. Some people thought that the strategy to reduce lot sizes should be limited to transit corridors, while others thought that lot sizes in Portland were already too small. A few people felt that this strategy would benefit only developers, and some felt that Metro should not mandate or control lot sizes.

Reducing Parking

Among the four common growth strategies, a reduction in parking for retail and commercial development receives the lowest level of support (rank 1 or 2) at 62% (See Figure 2). Support is strongest among stakeholders at 69% and lowest among tabloid questionnaire respondents at 55%. There is a relatively even distribution of responses in support and in opposition from respondents in each of the three counties. (See Appendix, Table 2)

Figure 2



Supporters of this strategy say it would promote alternative transportation modes and discourage auto use. They point out that many parking lots are underutilized most of the time and are an inefficient use of land and space. Concerns about reducing the amount of parking center on

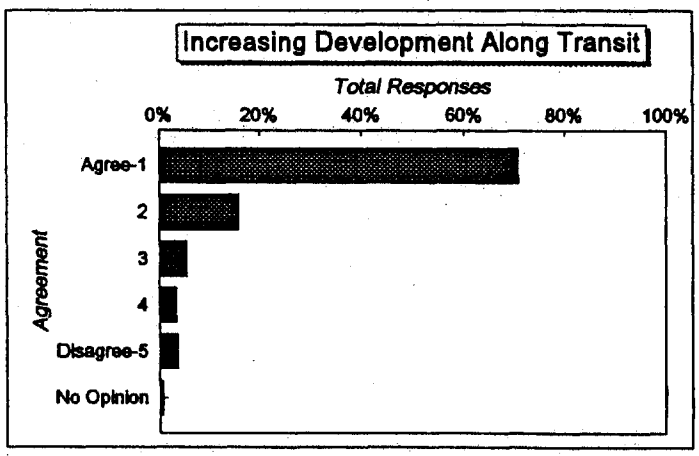
ensuring that transit alternatives are available. A number of people think restrictions on parking will have a limited effect on discouraging automobile use and encouraging the use of other modes of transportation. The majority of comments suggest that reducing the space for parking could be accomplished by requiring more parking structures rather than lots. Many comments suggest a flexible or selective approach that would eliminate excess parking based on an average use rather than peak loads or in areas where there currently is not a problem with parking.

Those who disagree with this strategy tend to be concerned about possible negative impact on businesses, especially retail. Some think a flexible approach that reduces parking in those areas that are adequately served by transit is needed. Others are concerned about the overflow of on-street parking into residential areas and suggest that more opportunities for shared parking should be pursued. A few think that more parking is needed, especially in downtown Portland.

Increasing Development Along Transit

Of the four strategies, increasing the amount of residential and retail development along bus lines and light rail stations receives the strongest support both overall (87%) and among each of the respondent groups (See Figure 3). It also has the lowest level of disagreement (rank 4 or 5) at 7%. (See Appendix, Table 3)

Figure 3



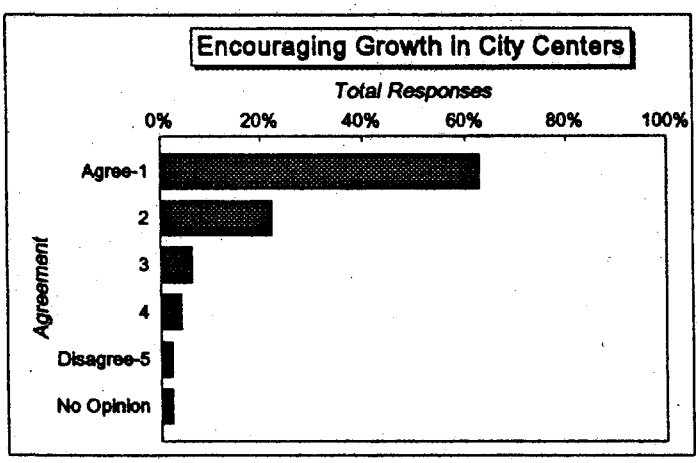
Supporters see this strategy as an essential means to reinforce the region's investment in light rail, reduce reliance on the automobile, and create new housing and retail opportunities. Concerns center on the belief that development should be concentrated in nodes rather than strips, even along bus lines. Other concerns include the impacts on existing neighborhoods, crime and noise along transit lines, and the need for quality design and other amenities to

maintain the region's quality of life. A few suggest that it will take more public effort than zoning to encourage this type of development, and that the public sector will have to provide incentives such as fast-track permitting and other types of regulatory relief. Those disagreeing with this strategy cite crowded and potentially unattractive development as well as the degradation of existing, older neighborhoods.

Encouraging Growth in City Centers

The strategy to encourage more growth in city centers and the redevelopment of land for more compact use is supported by more than 80% of all respondents, with the strongest support (91%) found among stakeholders. (See Figure 4) Support is relatively consistent among respondents from the three counties. (See Appendix, Table 4)

Figure 4



Supporters suggest that this strategy will encourage more efficient and cost-effective use of land, enhance increased use of transit, and preserve open space and resource lands. Some people think including more residential and retail uses in these centers will be an important part of creating a higher quality of life in a denser urban environment. Others are concerned that centers are too expensive for many small businesses and that the centers, other than downtown Portland, need to become self-sufficient autonomous centers. A few people note that the market trend currently seems to be in the opposite direction and incentives will be needed to encourage this type of development. A few also thought that this strategy should be targeted to specific areas rather than applied as a universal policy. Those in opposition most frequently suggest that further development in existing centers will lead to increased crime and urban decay.

OTHER GROWTH MANAGEMENT STRATEGIES

The stakeholder interviews and open house questionnaires solicited input on six additional growth management strategies or "key building blocks." In addition, several of these strategies were commented on at the open houses and in tabloid questionnaire comments. As with the four common strategies discussed above, respondents were asked to rank whether they agreed or disagreed with the individual strategy. Results are calculated by percentage of respondents.

Encouraging Growth in Neighboring Cities

Overall, this strategy receives lukewarm support at 57%, with less than half (45%) of open house questionnaire respondents supporting it (See Appendix, Table 5). The low level of support is due largely to a concern that these communities may not be prepared to manage significant additional growth, create a jobs/housing balance and establish adequate transportation connections to the region. Many people say that growth in these communities is already occurring and will continue to increase, and therefore it makes sense to include them in a regional strategy. Some have jurisdictional questions and are concerned about how to implement such a policy, while others are concerned that this strategy merely shifts the region's growth problems elsewhere and will create sprawl in those communities.

Establishing Greenbelts

Strong support (87%) for this strategy is mainly due to the widespread belief that greenbelts are an important tool for limiting sprawl, providing access to open space, creating a sense of place, and maintaining quality of life (See Appendix, Table 6). Some people say it will be difficult to create these greenbelts without public acquisition, fearing that these areas would be gradually developed if they were protected only by zoning regulations. Others think regulation will be more important because acquisition costs will be prohibitive. Some are concerned about providing public access to these areas and about maintaining and enforcing the greenbelts. Others state that large-lot residential use would be an acceptable use inside the greenbelts. A few people want to establish additional greenbelts to separate communities inside the UGB. The people that disagree with this strategy question the need for rural open spaces, especially in terms of the size of the greenbelts.

Open house participants, in comments on a miscellaneous question pertaining to use of open space to separate the UGB and neighboring cities, express strong support for this strategy. A majority of those (74%) support this concept and many feel it is essential in preserving the region's character and livability. Several refer to Los Angeles or Southern California as an example of what the region could look like without greenbelts. Several others used this opportunity to state their preference for holding the UGB in place. A smaller number of individuals say that the greenbelt concept is impractical or unworkable.

Retaining Open Spaces Within the UGB

Most respondents (83%) think open space within the regional UGB is essential to maintaining quality of life and livability (See Appendix, Table 7). Many people feel that open space within the UGB should be accommodated through more compact development; some think increasing densities should be the primary focus but say there is a limit and expanding the UGB should be considered as a long-term option. A few people think that not expanding the UGB is more important than retaining additional open space. Some say expanding the UGB will be necessary in order to maintain an affordable land supply, while a few do not think additional open space is a priority.

Encouraging Development in Neighborhoods

This is the most popular of the building blocks, with over 90% of respondents in support (See Appendix, Table 8). Mixed-use development and neighborhood-oriented development is seen as a means to enhance the pedestrian environment, create a greater sense of community, and reduce reliance on the automobile. Some people feel this type of development is more appropriate for the established urban areas than the predominantly residential suburban neighborhoods. Others suggest that proactive incentives and more flexible regulations will be needed to allow experimentation and provide examples of successful projects.

Encouraging Multiple Uses Along Arterials

Supporters (84%) see this strategy as another means of creating transportation alternatives to the automobile (See Appendix, Table 9). A number of people are concerned about safety, especially in encouraging more bicycle use on the arterials. Others are concerned about increasing congestion and maintaining mobility. A few are skeptical about bicycles as a viable means for commuting, especially given the region's climate.

Reinforcing Existing Employment Centers

The support (72%) for reinforcing existing employment centers is tempered by some who feel there should be enough flexibility to allow new centers if needed (See Appendix, Table 10). Some think there is more than enough existing commercial retail space and the focus of new development should be on office and industrial employment growth. Others say this policy is an important component in encouraging transit use in the existing centers. Still others think creating new centers in the suburbs will reduce commuting distances and provide an opportunity to experiment with different development types.

Other Building Blocks

Stakeholder interviews and open house questionnaires provided an opportunity for the

identification of additional building blocks or strategies that should be considered in developing a recommendation. The most frequently suggestions include:

- Affordable housing
- Putting jobs and housing closer together to reduce commuting distances and times, particularly if growth is encouraged in neighboring cities
- Public safety
- Schools
- Air and water quality
- Telecommuting
- Road improvements
- Consideration of the social impacts of growth, especially on families and children
- Industrial policy
- Tax reforms, including regional revenue-sharing

GROWTH CONCEPTS

Stakeholders and open house workshop participants were asked to describe a preferred growth concept and discuss major issues associated with its implementation. In earlier stages of the Region 2040 process, Metro developed three growth concepts in order to evaluate possible growth management strategies. Concept A accommodates growth by expanding the UGB. Concept B maintains the current UGB and increases density inside the UGB. Concept C increases density inside the UGB but also encourages growth in neighboring cities such as Sandy and Canby.

Growth Options

Among stakeholders, preferences are evenly distributed among Concepts B, C, a combination of Concepts B and C, and individual visions for the region. Open house work groups did not overwhelmingly support one growth concept over another, although Concept A received much less support than B or C. Most people supported a combination of Concepts B and C.

Those who support Concept A believe that it provides more freedom and choice of housing and lifestyle options and more individual choice than Concepts B or C.

Most people who support Concept B feel it is important to hold the UGB, increase densities for more efficient provision of services, provide a mix of residential and commercial land uses, and create more opportunities for alternative modes of transportation, such as transit, bicycling, or walking. Supporters of Concept B believe it provides a more efficient use of existing land and resources, preserves farm and forest land outside of the UGB, and reduces sprawl. They feel Concept B will best utilize the existing infrastructure, create strong neighborhoods and offer the

most variety in housing and lifestyle choices. A multi-modal transportation system and reduced reliance on the automobile are also cited as advantages of this alternative. Some people are concerned about the need for additional open space and the potential impact on families and children. Critics of this concept feel it involves too much change and does not provide enough choice in housing types.

Concept C supporters see it as the best combination of strategies and a compromise or a balance between sprawl and too much density. Supporters say that this will reduce development pressures within the UGB, provide needed job opportunities in satellite cities, maintain open space in the form of greenbelts, and provide a more balanced distribution of growth. They are concerned that there must be coordination with the neighboring cities to ensure that they also promote compact growth with a job/housing balance and limited UGB expansion. They also feel that Concept C needs to have a greater emphasis on transit and more open space inside the region in addition to greenbelts for separation. Some people think Concept C will provide an easier transition and that the additional land and lower growth pressures will provide more affordable housing and greater choice.

Overall, as stated, the majority of participants prefer a combination of Concepts B and C as a more realistic option. They say such a hybrid is a better way to maintain the character of the region's communities and that a limited expansion of the UGB will make it easier to provide additional open spaces and more affordable housing. Most would like to see compact growth and an emphasis on transit, but feel Concept B goes too far. There is a belief that there is a limit to increasing densities before there is an erosion of the quality of life, and that when the region reaches that limit, it will be acceptable to expand the UGB.

Compact, affordable housing with pedestrian-friendly commercial areas, healthy mixed-use centers, transit, and purchase of development rights on farm and forest land are characteristics of the preferred regional form. A few people prefer transit-oriented, mixed-use development surrounded by single-family houses. Others suggest linear development patterns along highway corridors, an emphasis on the waterfront, or the LUTRAQ model as an alternative. Other issues or concerns to be addressed in developing a recommendation include:

- Most people feel the UGB should not be substantially altered.
- Good housing and community design is essential for any of the concepts to work. Design should foster a greater sense of community, facilitate connections between transportation modes, provide opportunities for people to work and live closer together, and create more opportunities for walking and bicycling.
- Public safety is an important issue in planning and designating the final 2040 approach.
- It is important to integrate land use and transportation planning.

- Many people feel that it is important, under any concept, to maintain choices and flexibility in housing and transportation options.

- Specific financing and implementation measures such as revenue sharing, congestion pricing, and design guidelines need to be considered.

Flexibility in applying growth management strategies throughout the diverse region is needed.

Implementation Issues

Public education and consensus-building are cited as being most critical to creating broadly based support for the preferred concept. It will be important to develop a strong regional vision with support from business and community leaders. Educating the public about tradeoffs and demonstrating the benefits of changing behaviors and the consequences of maintaining the status quo will be critical to continuing support. Strong regional leadership is needed to end turf battles between local governments.

Most people think land use regulations will need to be supported by incentives to encourage specific types of developments. Reducing the regulatory burden and providing gap financing to reduce investment risks will be important to establish a track record for mixed use developments. Some people think additional incentives should be provided to businesses to locate along transit lines. Others say the use of disincentives such as higher parking fees, congestion pricing, or a surcharge on large lots will be needed to change behavior. A flexible approach to implementation is frequently emphasized.

A number of people think substantial investment in transit improvements, open space, and infrastructure will be needed to manage the expected growth and maintain quality of life. Some feel that financing of these projects will require changes in the tax structure to create new sources of revenue and that regional revenue-sharing should be introduced.

Many respondents are pessimistic about the ease of implementing any recommended action. Preserving open spaces, improving transportation facilities or building additional light rail, planning and zoning regulations, and public involvement or information efforts are cited as the easiest actions to implement. Many respondents feel that the most difficult actions to implement are those that require changes in individual attitudes, particularly convincing people to act in the best interests of the community before considering their individual best interests. Specific actions that will be difficult to implement include increasing density and reducing lot sizes, convincing people to use their automobiles less frequently and increasing transit usage, coming to a consensus on the most desirable growth alternative, and funding proposals.

On the political side, some people are concerned about the difficulty of achieving regional consensus, especially in defining roles between Metro and local governments.

TABLOID AND HOTLINE COMMENTS

Approximately 10,000 people -- about 60 percent of those completing the tabloid questionnaire -- submitted written comments on a wide range of issues. In addition, more than 700 people called the Region 2040 phone hotline to comment on growth issues or request information. All of these comments were categorized and coded into the following broad categories:

- Comments related to the four growth strategies
- Growth issues
- Transportation issues
- Land use and urban design issues
- Open space and natural resources issues
- Implementation issues
- Miscellaneous comments

In general, the comments are evenly distributed among the categories, with transportation issues receiving the most comments, followed by land use and urban design issues. Based on these comments, the top five most frequently mentioned issues include 1) the need for open spaces both inside and outside the UGB (1,974 comments), 2) more light rail and more transit (1,061 comments), 3) no or slow growth (883 comments), 4) hold the UGB, (707 comments) and 5) more bike paths or bike lanes (691 comments).

Comments Related to the Four Growth Strategies

A large number of the comments are in response to the four specific growth management strategies the respondents were asked to rank. The strategy to reduce average lot sizes attracted the most comments, both in support of and opposed to this strategy. These comments are summarized in the preceding section on "Common Growth Management Strategies."

Growth Issues

Urban Growth Boundary

Comments concerning whether or not to expand the UGB are 4-to-1 in support of maintaining the current UGB. Many people feel that there is too much sprawl already and that the UGB plays a critical role in maintaining the region's quality of life. They stressed better use of land inside the UGB in order to protect farmland, retain rural open spaces, and maintain community separation.

The 183 people who wrote in support of expanding the UGB expressed concerns about overcrowding and driving land and housing costs to artificially high levels. The majority of those supporting expansion of the UGB see a need for some expansion as a "safety valve" but

that it should be well planned with the infrastructure in place. Others suggest that low-quality farm and forest land should be the primary areas for expansion.

Growth/No Growth

Nearly 900 comments suggest that Metro try to slow or stop growth. Concerns about stopping or limiting growth center on the negatives of growth (e.g., school overcrowding and traffic congestion) and the fear that unchecked growth will lead to an overall decline in the region's quality of life. Many people invoke Tom McCall's legendary invitation, "visit Oregon but please don't stay."

Many of the suggestions for limiting growth focus on restricting the number of building permits at a sustainable level, or only building when there is available infrastructure such as adequate water, sewer services, transportation, schools, and open space. Other comments suggest eliminating economic development programs that provide businesses with incentives to locate in the region. Close to 100 comments support the idea that the source of growth problems is overpopulation and there is a need to promote birth control programs to achieve a zero population growth rate.

Transportation Issues

Transportation issues account for the greatest number of comments among the seven broad categories. Comments received about transportation issues are divided into four subcategories: 1) automobiles, 2) transit, 3) bicycles and pedestrians, and 4) parking.

Automobiles

Nearly 500 comments about automobiles deal with the need to discourage the use of cars. Many people support policies designed to make drivers, especially commuters, pay the full cost of driving an automobile. They suggest implementing congestion pricing programs, creating toll roads and bridges, and/or raising parking fees and vehicle registration fees, or at least basing registration fees on miles traveled. A number of people suggest closing certain streets, such as parts of downtown Portland or the Hawthorne Bridge, to auto traffic on certain days. Others want to see more High Occupancy Vehicle (HOV) lanes and carpooling as well as incentives to companies to encourage telecommuting and flexible work schedules to reduce rush-hour traffic.

Fewer than 100 respondents think that planning should accommodate, not discourage, car use. They point out that transit does not go everywhere people need to go.

Regarding specific road projects, comments are evenly split for and against building of the Westside Bypass between Tualatin and Hillsboro and moving the Eastside Freeway (I-5) away from the Willamette River.

Transit

Over 1,000 comments propose more transit. About 40 percent of these comments focus on the need to encourage transit use, while others request more or improved transit service. People strongly support light rail, with about 400 comments asking for expansion of MAX. Slightly fewer requested more or improved bus service, with increased off-peak hours and additional small connector buses being the most common suggestions.

Bicycles and Pedestrians

More than 1,200 comments focus on bicycle and pedestrian issues, making them some of the most frequently mentioned concerns. Nearly 400 comments request more pedestrian-friendly environments, with about half specifically supporting the "walkable neighborhood" concept and half simply requesting more sidewalks or walkways. Other suggestions include more street trees and better street lighting, particularly in southwest Portland.

Nearly 700 people responded specifically about bike issues, and almost all of their comments requested more bike paths or lanes. Frequent suggestions include converting some streets to pedestrian and bike-only uses, replacing on-street parking with bike lanes, and providing separate bicycle and pedestrian paths. A few requested more facilities such as showers, bike lockers, or bike racks.

Parking

As noted in the preceding section on the strategy to reduce the number of parking spaces, most parking comments focus on building more structures instead of surface lots, especially in the city centers. Specifically, it is suggested that all new commercial development include underground parking or two to three-story parking structures. Other comments include limiting on-street parking, including no overnight parking, and creating more shared parking opportunities with offices and retail centers.

Miscellaneous

Miscellaneous comments about transportation issues address support for water taxi service on the river, incentives to promote the use of electric vehicles, and restrictions on truck traffic on the freeways during rush hour.

Land Use and Urban Design Issues

Density

Comments concerning questions about density run about 3-to-1 in support of increasing density. About 500 comments express fears of urban sprawl and the region to turn into another Los

Angeles or Seattle. A number of comments focus on the need to grow up, not out. People suggest adding additional stories above single-story commercial buildings, establishing minimum sizes for new buildings, and building more two-story houses with basements that can fit on smaller lots. Some suggest that more examples of workable higher density developments are needed, while others think higher density should be targeted in specific areas such as transit corridors or city centers.

People opposed to higher density focus their comments on the perceived impacts on the quality of life and livability including increased congestion, pollution and crime. Some mention social impacts of higher density, especially overcrowding, loss of privacy, and increased stress.

About 120 comments mention infill as the primary means for accommodating growth before expanding the UGB; many people want to "grow in" as much as possible, especially as a tool for neighborhood revitalization. Some people want to provide more tax incentives to encourage more infill development. Others are concerned about the quality of developments and want to create higher design standards.

Closely related to comments about infill are about 600 comments suggesting revitalizing old neighborhoods or downtown areas, and restoring old or rundown buildings. Some people would like more incentives to encourage rehabilitation in inner city neighborhoods. Others want to encourage more housing and higher density in the urban core. Many people are concerned about historic preservation and support restoring and reusing existing vacant buildings before building new ones.

Housing

A number of comments about land use address housing and housing affordability. Many people want to ensure that low-income families are accounted for in Region 2040 and that more affordable housing is built. Of the more than 300 people who wrote in about multi-family housing, 85 percent support an increase. Many of these people suggested rezoning to allow "mother-in-law" housing units or duplexes.

Only 36 people opposed increasing multi-family housing. Most of these people specified that they didn't want more large apartment buildings, and that apartments should be kept separate from single family neighborhoods.

Mixed Use Development

About 300 people responded in favor of mixed-use development, with almost no opposition. Many people would like to see more mixed-use neighborhood commercial centers. They want the commercial centers evenly distributed throughout the region and specifically mentioned the desire to cut down on the number and length of trips they take by shopping closer to home.

There is also a great deal of support for transit-oriented and pedestrian-oriented development. Many people want more intensive commercial development at light rail stations and clustered along bus lines. Others suggest that new residential subdivisions should be required to be pedestrian-friendly with connections to nearby retail establishments and the surrounding community and that development of more strip malls and "big box" retailers be restricted. Other comments about neighborhood character include the need for design guidelines to ensure new development is compatible with and enhances the uniqueness of individual neighborhoods.

Neighboring Cities

A few comments address growth in neighboring cities, with most people wanting to maintain separation between these communities and the region. They would like to see these cities grow to be self-contained, full-service communities with greater density and limited expansion of their UGBs. There also is support for direct transit connections to these cities. A few people want these communities to continue with a typical suburban-type development pattern or just be left alone.

Open Space and Natural Resources Issues

This was the most frequently mentioned issue, with nearly 2,000 comments concerning the protection of open space and natural resources. Many of the comments focus on protecting farm and forest land and rural open space. Some people want to stop the creation of additional small acreage farms/homesites outside the UGB. A number of people support tighter regulations on developers to save existing trees, especially on hillsides. They want to restrict the amount of site clearance needed for developments and require more replanting.

Comments about Metro's Greenspaces program are mostly favorable, with many people supporting the creation and acquisition of more public open space areas. Other comments include the need for more smaller neighborhood parks and more active recreation facilities, especially with higher density development, the need to fully compensate landowners for new public open spaces, and general concerns about safety and maintenance costs. There are a few comments about a perceived threat to Forest Park and the need to keep it intact.

Nearly 200 comments support the creation of greenbelts to maintain community separation and protect farm and forest land. A large number of comments also address protection of wetlands, streams, and hillsides.

People also are concerned about preserving air and water quality. Many of these comments advocate addressing erosion control and runoff problems, as well as stricter DEQ standards to control automobile emissions. A few comments promote the use of alternative fuels, renewable energy, and electric cars.

Implementation Issues

Many of the comments emphasize a flexible approach to implementation with changes in the zoning regulations and tax laws to encourage certain types of development, especially mixed use and historic restoration. Some people want tighter regulatory enforcement, especially with buildings codes to encourage property maintenance.

Many people feel that growth should pay its own way through taxes on parking spaces, large lots and/or large houses. Some suggest surcharges on real estate purchases by people who have not been Oregon residents for 5-10 years. Also suggested are additional automobile or parking fees to support transit and tax credits for businesses and individuals who buy transit passes.

Miscellaneous Comments

People offered a wide of range of comments on a variety of issues; some comments related to Metro in general, some concerned the Region 2040 public involvement effort and the tabloid, and some were unrelated to Metro.

Some people suggest disbanding Metro or curtailing its powers. The most frequent reasons cited were a general dislike or distrust of government, the belief that Metro has too much authority, and a concern that there are too many layers of government and Metro is not needed. Other comments addressed concern over the new Metro building, concern about salary increases for Metro Councilors, the desire for an expanded recycling program that includes plastics, and suggestions to reduce garbage rates. A few people want to ensure that Clark County, Washington, is included in these growth management efforts.

Many people thanked Metro for including the public in the planning process and noted that the tabloid was well done and easy to understand. Others expressed concern about the expense of the tabloid and the difficulty in mailing the questionnaire. Some people indicated that they were uncertain whether their responses would be counted, their comments read, or their phone comments listened to.

OPEN HOUSE COMMENTS

Open house participants were asked to individually respond to a series of randomly posted questions.

To grow or not to grow (192 total comments)

A number of major themes emerge around the question "To grow or not to grow?" The most frequently cited comment is the importance of properly managing growth. People are concerned

about the adverse effects of unmanaged growth or emphasize the need to wisely manage or direct growth. A considerable number cite the need not only to manage growth, but to limit, slow, or stop it. Many feel that growth is not inevitable, but can and should be limited.

Preservation and protection of natural resources is also an important theme. A large number of people stress the importance of protecting trees and wildlife, maintaining open spaces, or developing parks and green spaces in conjunction with other new development.

A significant number of people state a preference for promoting alternative modes of transportation such as bicycling, walking, or transit, or the need to reduce automobile use, de-emphasize automobile-oriented development, or shelve plans for additional regional highways.

Maintaining the Urban Growth Boundary is also a frequently stated position. A much smaller number of people feel that the UGB should be expanded or remain flexible. Several people state that growth is inevitable and in some cases even desirable. There also is relatively strong sentiment that developers should act more responsibly or should be required (along with new residents) to pay the full cost of new development.

What would it take for you to shop in town centers such as downtown Gresham, downtown Milwaukie, downtown Hillsboro or downtown Tualatin? (79 total comments)

The most frequently cited incentive for shopping in downtown centers is better transit service. Other reasons include: a wider variety of shopping opportunities, proximity to such areas, more aesthetically pleasing environments, more pedestrian-friendly areas, more unique shops or events, more day-to-day necessities, improved security, and more parking facilities.

What would it take for you to use transit? (170 total comments)

The majority of those commenting indicate that more frequent or more extensive service would induce them to use transit. Several of those who call for more extensive service cite the need for more cross-town non-"hub-and-spoke" lines. Other frequent suggestions are to provide faster service, improve bus shelters or transit stations, make transit safer, provide more light rail, reduce the cost of transit, run more express buses, and provide storage capacity on buses for the needs of shoppers.

What would it take to make biking easier, more convenient and more pleasant in your community? (140 total comments)

The most frequently cited improvements are additional bike lanes or separated roadways for bicycles and automobiles. Many people also mention safety issues, stressing either safety

education for bicyclists, who are perceived as reckless, or education and enforcement for motorists, who are considered potentially harmful or inconsiderate of bicyclists. Others suggest improving or adding additional storage or parking facilities for bicycles or lockers and showers for bicyclists. A significant number of people also say that bicycle paths or lanes should be better connected, either to each other, or to destinations or other transportation facilities. Several people advocate decreasing the number of automobiles.

What would it take to make walking easier, more convenient and more pleasant in your community? (162 total comments)

By far, the most frequently cited issues are the need for safer places to walk and the need for more or better sidewalks. Many people also mention the need for more "places to walk to" such as grocery stores or recreational facilities, the need for more trees or other plantings along sidewalks or other walkways, and specific suggestions relating to the design or appearance of walkways. Others state that having fewer cars on the roads would induce them to walk more, and that there should be less use of concrete in the construction of walkways.

s:\pd\so\pubinv.rpt

APPENDIX

Table 1: Reducing Average Lot Sizes

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	7	38.9%	3	16.7%	3	16.7%	2	11.1%	3	16.7%	0	0.0%	18
Milwaukie	7	33.3%	4	19.0%	6	28.6%	1	4.8%	3	14.3%	0	0.0%	21
Hillsboro	13	52.0%	4	16.0%	2	8.0%	1	4.0%	5	20.0%	0	0.0%	25
Wilson H.S.	27	50.0%	10	18.5%	3	5.6%	3	5.6%	10	18.5%	1	1.9%	54
Tualatin	7	36.8%	6	31.6%	2	10.5%	1	5.3%	3	15.8%	0	0.0%	19
Metro	35	74.5%	8	17.0%	0	0.0%	3	6.4%	1	2.1%	0	0.0%	47
Beaverton	29	63.0%	7	15.2%	4	8.7%	2	4.3%	4	8.7%	0	0.0%	46
Oregon City	8	61.5%	3	23.1%	1	7.7%	0	0.0%	1	7.7%	0	0.0%	13
Mailed	15	55.6%	3	11.1%	4	14.8%	2	7.4%	3	11.1%	0	0.0%	27
Total Open Houses	148	54.8%	48	17.8%	25	9.3%	15	5.6%	33	12.2%	1	0.4%	270
Tabloid		41.0%		17.0%		9.0%		9.0%		23.0%		1.0%	
Multnomah Co.		48.0%		17.0%		8.0%		8.0%		18.0%		1.0%	
Washington Co.		33.0%		18.0%		10.0%		11.0%		27.0%		1.0%	
Clackamas Co.		35.0%		17.0%		10.0%		10.0%		28.0%		0.0%	
Stakeholders		60.0%		18.0%		10.0%		7.0%		14.0%		0.0%	
Median		51.9%		17.6%		9.4%		7.2%		16.4%		0.5%	

Table 2: Reducing the Amount of Parking

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	6	31.6%	3	15.8%	3	15.8%	3	15.8%	4	21.1%	0	0.0%	19
Milwaukie	9	42.9%	5	23.8%	1	4.8%	1	4.8%	4	19.0%	1	4.8%	21
Hillsboro	9	36.0%	7	28.0%	2	8.0%	3	12.0%	4	16.0%	0	0.0%	25
Wilson H.S.	28	52.8%	4	7.5%	4	7.5%	8	15.1%	8	15.1%	1	1.9%	53
Tualatin	10	52.6%	4	21.1%	2	10.5%	0	0.0%	3	15.8%	0	0.0%	19
Metro	33	71.7%	4	8.7%	5	10.9%	2	4.3%	2	4.3%	0	0.0%	46
Beaverton	20	44.4%	8	17.8%	10	22.2%	2	4.4%	5	11.1%	0	0.0%	45
Oregon City	5	38.5%	1	7.7%	2	15.4%	3	23.1%	2	15.4%	0	0.0%	13
Mailed	14	51.9%	7	25.9%	4	14.8%	1	3.7%	1	3.7%	0	0.0%	27
Total Open Houses	134	50.0%	43	16.0%	33	12.3%	23	8.6%	33	12.3%	2	0.7%	268
Tabloid		34.0%		21.0%		16.0%		11.0%		4.0%		0.0%	
Multnomah Co.		38.0%		22.0%		16.0%		10.0%		15.0%		0.0%	
Washington Co.		30.0%		21.0%		18.0%		12.0%		19.0%		0.0%	
Clackamas Co.		29.0%		22.0%		17.0%		13.0%		21.0%		0.0%	
Stakeholders		49.0%		20.0%		16.0%		11.0%		4.0%		0.0%	
Median		44.3%		19.0%		14.8%		10.2%		6.8%		0.2%	

Table 3: Increasing Development Along Transit

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	16	84.2%	2	10.5%	1	5.3%	0	0.0%	0	0.0%	0	0.0%	19
Milwaukie	15	68.2%	2	9.1%	0	0.0%	2	9.1%	3	13.6%	0	0.0%	22
Hillsboro	18	72.0%	4	16.0%	1	4.0%	2	8.0%	0	0.0%	0	0.0%	25
Wilson H.S.	39	73.6%	7	13.2%	2	3.8%	2	3.8%	1	1.9%	2	3.8%	53
Tualatin	10	55.6%	4	22.2%	2	11.1%	1	5.6%	1	5.6%	0	0.0%	18
Metro	39	83.0%	7	14.9%	0	0.0%	0	0.0%	0	0.0%	1	2.1%	47
Beaverton	29	82.9%	1	2.9%	4	11.4%	0	0.0%	1	2.9%	0	0.0%	35
Oregon City	11	84.6%	1	7.7%	1	7.7%	0	0.0%	0	0.0%	0	0.0%	13
Mailed	19	70.4%	5	18.5%	1	3.7%	1	3.7%	1	3.7%	0	0.0%	27
Total Open Houses	196	75.7%	33	12.7%	12	4.6%	8	3.1%	7	2.7%	3	1.2%	259
Tabloid		64.0%		19.0%		8.0%		3.0%		6.0%		1.0%	
Multnomah Co.		69.0%		18.0%		6.0%		2.0%		5.0%		0.0%	
Washington Co		62.0%		21.0%		9.0%		3.0%		6.0%		0.0%	
Clackamas Co.		61.0%		20.0%		10.0%		2.0%		6.0%		1.0%	
Stakeholders		73.0%		16.0%		4.0%		4.0%		2.0%		0.0%	
Median		70.9%		15.9%		5.5%		3.4%		3.6%		0.7%	

Table 4: Encouraging Growth in City Centers

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	8	42.1%	7	36.8%	2	10.5%	1	5.3%	0	0.0%	1	5.3%	19
Milwaukie	11	52.4%	4	19.0%	2	9.5%	1	4.8%	2	9.5%	1	4.8%	21
Hillsboro	14	58.3%	6	25.0%	1	4.2%	2	8.3%	0	0.0%	1	4.2%	24
Wilson H.S.	32	61.5%	9	17.3%	5	9.6%	3	5.8%	2	3.8%	1	1.9%	52
Tualatin	10	52.6%	4	21.1%	3	15.8%	0	0.0%	1	5.3%	1	5.3%	19
Metro	39	83.0%	6	12.8%	1	2.1%	1	2.1%	0	0.0%	0	0.0%	47
Beaverton	29	61.7%	15	31.9%	0	0.0%	2	4.3%	1	2.1%	0	0.0%	47
Oregon City	9	69.2%	4	30.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	13
Mailed	17	63.0%	5	18.5%	3	11.1%	1	3.7%	0	0.0%	1	3.7%	27
Total Open Houses	169	62.8%	60	22.3%	17	6.3%	11	4.1%	6	2.2%	6	2.2%	269
Tabloid		56.0%		21.0%		11.0%		4.0%		7.0%		1.0%	
Multnomah Co.		59.0%		21.0%		10.0%		4.0%		6.0%		0.0%	
Washington Co		57.0%		22.0%		11.0%		4.0%		7.0%		0.0%	
Clackamas Co.		54.0%		23.0%		12.0%		3.0%		8.0%		0.0%	
Stakeholders		73.0%		18.0%		9.0%		0.0%		0.0%		0.0%	
Median		63.9%		20.4%		8.8%		2.7%		3.1%		1.1%	

Table 5: Encourage Growth In Neighboring Cities

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	4	22.2%	5	27.8%	5	27.8%	2	11.1%	2	11.1%	0	0.0%	18
Milwaukie	4	21.1%	3	15.8%	5	26.3%	4	21.1%	3	15.8%	0	0.0%	19
Hillsboro	5	20.8%	7	29.2%	5	20.8%	3	12.5%	4	16.7%	0	0.0%	24
Wilson H.S.	7	13.7%	15	29.4%	10	19.6%	2	3.9%	14	27.5%	3	5.9%	51
Tualatin	0	0.0%	7	38.9%	2	11.1%	3	16.7%	5	27.8%	1	5.6%	18
Metro	7	15.2%	14	30.4%	6	13.0%	4	8.7%	13	28.3%	2	4.3%	46
Beaverton	12	26.7%	9	20.0%	9	20.0%	4	8.9%	8	17.8%	3	6.7%	45
Oregon Clt	22	66.7%	2	6.1%	1	3.0%	2	6.1%	6	18.2%	0	0.0%	33
Mailed	5	19.2%	7	26.9%	5	19.2%	2	7.7%	5	19.2%	2	7.7%	26
Total Open House	66	23.6%	69	24.6%	48	17.1%	26	9.3%	60	21.4%	11	3.9%	280
Tabloid		NA		NA		NA		NA		NA		NA	
Stakeholders		24.0%		42.0%		18.0%		11.0%		4.0%		0.0%	
Median		23.8%		33.3%		17.6%		10.1%		12.7%		2.0%	

Table 6: Establish Greenbelts

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	13	68.4%	3	15.8%	3	15.8%	0	0.0%	0	0.0%	0	0.0%	19
Milwaukie	13	61.9%	5	23.8%	2	9.5%	0	0.0%	1	4.8%	0	0.0%	21
Hillsboro	11	45.8%	4	16.7%	3	12.5%	3	12.5%	3	12.5%	0	0.0%	24
Wilson H.S.	37	68.5%	9	16.7%	6	11.1%	1	1.9%	1	1.9%	0	0.0%	54
Tualatin	15	78.9%	3	15.8%	0	0.0%	1	5.3%	0	0.0%	0	0.0%	19
Metro	35	74.5%	9	19.1%	2	4.3%	1	2.1%	0	0.0%	0	0.0%	47
Beaverton	30	63.8%	13	27.7%	1	2.1%	0	0.0%	2	4.3%	1	2.1%	47
Oregon Clt	8	61.5%	3	23.1%	2	15.4%	0	0.0%	0	0.0%	0	0.0%	13
Mailed	16	57.1%	8	28.6%	2	7.1%	1	3.6%	1	3.6%	0	0.0%	28
Total Open House	178	65.4%	57	21.0%	21	7.7%	7	2.6%	8	2.9%	1	0.4%	272
Tabloid		NA		NA		NA		NA		NA		NA	
Stakeholders		64.0%		22.0%		7.0%		4.0%		2.0%		0.0%	
Median		64.7%		21.5%		7.4%		3.3%		2.5%		0.2%	

Table 7: Retain open spaces within the UGB

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	8	44.4%	5	27.8%	4	22.2%	0	0.0%	1	5.6%	0	0.0%	18
Milwaukie	9	45.0%	8	40.0%	0	0.0%	1	5.0%	2	10.0%	0	0.0%	20
Hillsboro	12	50.0%	6	25.0%	1	4.2%	0	0.0%	4	16.7%	1	4.2%	24
Wilson H.S.	29	56.9%	10	19.6%	9	17.6%	1	2.0%	1	2.0%	1	2.0%	51
Tualatin	13	65.0%	4	20.0%	1	5.0%	0	0.0%	2	10.0%	0	0.0%	20
Metro	33	75.0%	7	15.9%	2	4.5%	0	0.0%	1	2.3%	1	2.3%	44
Beaverton	22	50.0%	15	34.1%	0	0.0%	6	13.6%	1	2.3%	0	0.0%	44
Oregon City	7	53.8%	5	38.5%	0	0.0%	0	0.0%	1	7.7%	0	0.0%	13
Mailed	12	44.4%	7	25.9%	5	18.5%	1	3.7%	2	7.4%	0	0.0%	27
Total Open Houses	145	55.6%	67	25.7%	22	8.4%	9	3.4%	15	5.7%	3	1.1%	261
Tabloid		NA		NA		NA		NA		NA		NA	
Stakeholders		53.0%		33.0%		9.0%		4.0%		11.0%		0.0%	
Median		54.3%		29.3%		8.7%		3.7%		8.4%		0.6%	

Table 8: Encourage Development Close to Transit

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	14	73.7%	3	15.8%	2	10.5%	0	0.0%	0	0.0%	0	0.0%	19
Milwaukie	13	68.4%	3	15.8%	0	0.0%	1	5.3%	1	5.3%	1	5.3%	19
Hillsboro	14	58.3%	6	25.0%	3	12.5%	1	4.2%	0	0.0%	0	0.0%	24
Wilson H.S.	39	75.0%	6	11.5%	3	5.8%	1	1.9%	2	3.8%	1	1.9%	52
Tualatin	16	88.9%	0	0.0%	0	0.0%	1	5.6%	1	5.6%	0	0.0%	18
Metro	39	83.0%	5	10.6%	2	4.3%	0	0.0%	0	0.0%	1	2.1%	47
Beaverton	32	69.6%	11	23.9%	2	4.3%	0	0.0%	1	2.2%	0	0.0%	46
Oregon City	11	84.6%	2	15.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	13
Mailed	19	67.9%	4	14.3%	4	14.3%	1	3.6%	0	0.0%	0	0.0%	28
Total Open Houses	197	74.1%	40	15.0%	16	6.0%	5	1.9%	5	1.9%	3	1.1%	266
Tabloid		NA		NA		NA		NA		NA		NA	
Stakeholders		73.0%		20.0%		4.0%		2.0%		0.0%		0.0%	
Median		73.5%		17.5%		5.0%		1.9%		0.9%		0.6%	

Table 9: Encourage Multiple Uses Along Arterials

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	9	47.4%	7	36.8%	3	15.8%	0	0.0%	0	0.0%	0	0.0%	19
Milwaukie	9	45.0%	4	20.0%	2	10.0%	0	0.0%	4	20.0%	1	5.0%	20
Hillsboro	12	50.0%	5	20.8%	2	8.3%	2	8.3%	2	8.3%	1	4.2%	24
Wilson H.S.	32	62.7%	9	17.6%	2	3.9%	3	5.9%	2	3.9%	3	5.9%	51
Tualatin	14	77.8%	3	16.7%	0	0.0%	0	0.0%	1	5.6%	0	0.0%	18
Metro	37	78.7%	3	6.4%	4	8.5%	1	2.1%	2	4.3%	0	0.0%	47
Beaverton	30	63.8%	13	27.7%	3	6.4%	0	0.0%	0	0.0%	1	2.1%	47
Oregon City	8	61.5%	5	38.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	13
Mailed	16	57.1%	8	28.6%	2	7.1%	1	3.6%	1	3.6%	0	0.0%	28
Total Open Hous	167	62.5%	57	21.3%	18	6.7%	7	2.6%	12	4.5%	6	2.2%	267
Tabloid		NA		NA		NA		NA		NA		NA	
Stakeholders		53.0%		31.0%		9.0%		7.0%		0.0%		0.0%	
Median		57.8%		26.2%		7.9%		4.8%		2.2%		1.1%	

Table 10: Enhance Exdsting Employment Centers

Location/Source	Agree								Disagree		No Opinion		Total No.
	1		2		3		4		5		6		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Open House													
Gresham	8	42.1%	6	31.6%	2	10.5%	2	10.5%	1	5.3%	0	0.0%	19
Milwaukie	11	52.4%	5	23.8%	2	9.5%	1	4.8%	2	9.5%	0	0.0%	21
Hillsboro	9	39.1%	6	26.1%	1	4.3%	2	8.7%	4	17.4%	1	4.3%	23
Wilson H.S.	28	54.9%	12	23.5%	4	7.8%	1	2.0%	2	3.9%	4	7.8%	51
Tualatin	11	61.1%	2	11.1%	1	5.6%	0	0.0%	4	22.2%	0	0.0%	18
Metro	32	69.6%	9	19.6%	3	6.5%	1	2.2%	1	2.2%	0	0.0%	46
Beaverton	23	50.0%	10	21.7%	6	13.0%	2	4.3%	3	6.5%	2	4.3%	46
Oregon City	10	76.9%	1	7.7%	0	0.0%	1	7.7%	1	7.7%	0	0.0%	13
Mailed	12	44.4%	4	14.8%	2	7.4%	0	0.0%	5	18.5%	4	14.8%	27
Total Open Hous	144	54.5%	55	20.8%	21	8.0%	10	3.8%	23	8.7%	11	4.2%	264
Tabloid		NA		NA		NA		NA		NA		NA	
Stakeholders		49.0%		20.0%		18.0%		13.0%		0.0%		0.0%	
Median		51.8%		20.4%		13.0%		8.4%		4.4%		2.1%	

DRAFT

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ADOPTING A 2040 GROWTH MANAGEMENT STRATEGY	))	RESOLUTION 94-2040 Introduced by Rena Cusma Executive Officer

WHEREAS, Metro adopted land use regional goals and objectives called Regional Urban Growth Goals and Objectives (RUGGO) in September 1991 which are required by state law; and

WHEREAS During the development of RUGGO, there was widespread interest in a long-range, 50-year view of regional growth which leads to Metro's Region 2040 planning program; and

WHEREAS, State law requires several significant 20-year regional land use decisions in 1995 that will be affected by identifying the region's long-term planning direction; and

WHEREAS, The Metro Council adopted Resolution No. 94-1930B describing the products of the Region 2040 process to be adopted by Resolution and by Ordinance; now, therefore,

BE IT RESOLVED,

1. That the description of the preferred configuration of Metro's urban form to the year 2040 including a map of approximate locations of the conceptual UGB and urban reserves in Exhibit "A" attached is hereby adopted as the conceptual basis for continued development of the site specific urban growth boundary (UGB) and urban reserves.

2. That the Region 2040 Recommended Alternative Technical Appendix and Recommended Alternative Analysis Map attached as Exhibit "B" is hereby accepted as an example of one possible implementation of the 2040 urban form concept.

3. That the Preliminary 2040 forecasts of 50 year population and employment of Tables 5, 6 and 7 in the Region 2040 Recommended Technical Appendix attached as Exhibit "B" are hereby adopted as the starting point for refinements in development of the Regional Framework Plan.

ADOPTED by the Metro Council this _____ day of _____, 1994.

_____

Judy Wyers, Presiding Officer

KLA/1183B

Metro Region 2040
Decision-making Kit
Fall 1994

2040 Recommended Alternative

Overview

This document describes the Recommended Alternative for the Region 2040 project. For background information, please refer to *Concepts for Growth*, dated June 1994. (This report assumes familiarity with the ideas and terminology used in the June effort). The Recommended Alternative is the Metro Executive Officer's recommendation to the Metro Council and its advisory committees, the Metro Policy Advisory Committee (MPAC), the Joint Policy Advisory Committee on Transportation (JPACT) and the Future Vision Commission.

The Recommended Alternative considers the technical findings documented in the *Concepts for Growth* report as well as nearly 17,000 responses received from the *It's Your Turn* survey mailer. The Recommended Alternative is Metro staff's attempt to blend all this information into one "best" alternative. Its a common point to begin discussion of the major issues confronting our region to be refined through the Regional Framework Plan and Future Vision. The alternative will be discussed at public hearings and is likely to change in response to public comments received.

The Recommended Alternative would allow the expansion of the urban growth boundary by 14,500 acres over 50 years. This is less expansion than other concepts, except Concept B. It preserves substantial amounts of rural resource lands that surround the metropolitan region. The Recommended Alternative also would accommodate growth inside the present urban growth boundary by using land more efficiently and utilizing smaller average lot sizes. Higher density would be encouraged where good quality transit service is planned. Finally, 8 percent of new regional growth would occur in neighboring cities, less than the 30 percent assumed in Concept C.

The Recommended Alternative is illustrated by two maps. The Growth Concept Map is intended to be considered for adoption by the Metro Council. This map and descriptions of its components will become the basis for overall regional policy setting through the Regional Urban Growth Goals and Objectives (RUGGOs). The Analysis Map provides a detailed picture of one way that the Recommended Alternative could be implemented and allows for computer modeling and technical analysis. Much of this report describes the results of this modeling and technical analysis. The distinction between the ideas represented in the two maps are worth calling out. The Concept map provides the basis for a decision which will embody general principles while the analysis map is only and example allowing a greater level of detail.

In the course of integrating feedback from citizens, and local governments we changed some category names from those described in *Concepts for Growth* because of concerns expressed and to more accurately reflect the meaning and intent of the terms. "Preferred Alternative" is replaced with "Recommended Alternative". "Rural Reserves" has been substituted for "Greenbelts", and "Open Space" for "Greenspaces", to avoid confusion with Metro's Greenspaces program. "Node" has been changed to "Station Communities". "Employment Area" has been divided into two categories, "Industrial Area" and "Employment Area", just as "Neighborhoods" have been divided into "Inner Neighborhoods" and "Outer Neighborhoods". (Explanations of these categories are included below).

Highlights of the analysis version

- The urban growth boundary (UGB) would be expanded by 14,500 acres over the 50 year period. Lands subject to future UGB expansion would be designated as Urban Reserves until the UGB expansion is warranted.
- The average lot size for new single family homes region-wide would be 6,650 square feet, or 6.5 units per net acre.

- The ratio of single family and multi-family in new development would be 62 percent to 38 percent (The current ratio is 70 percent single family, 30 percent multi-family.)
- 20 percent of the single family market would be accommodated by rowhouses, duplexes or small lot development. This housing type would mostly occur along transit corridors.
- The majority of housing would be in neighborhoods (52 percent), followed by corridors and station communities (33 percent), and city, regional and town centers (8 percent).
- About 19,300 acres of currently developed land in the urban area would redevelop for more intensive uses.
- Open space would represent 34,000 of the 248,500 acres in the expanded UGB, or 14 percent of the urban land area.
- One third of the buildable acres would allow mixed uses and two thirds would remain in single use categories such as residential or industrial.
- The majority of new jobs (two-thirds) would be accommodated in centers or along corridors and main streets, which would be well served by transit. The Industrial Areas would provide land for about 10 percent of new jobs and Employment Areas would provide space for 14 percent of new jobs. Significantly, residential neighborhoods account for 15 percent of total jobs (this includes people working at home, child care, schools, and small scale commercial within neighborhoods), up from 11 percent currently.
- Land extensive and heavily auto dependent commercial or industrial uses would be limited to employment areas and industrial areas rather than on corridors, centers or neighborhoods.

Recommended Alternative Elements

This Recommended Alternative is designed to accommodate 720,000 additional residents and 350,000 additional jobs. The total population served within this plan is 1.8 million residents within the Metro boundary.

The basic philosophy of the Recommended Alternative is: preserve our access to nature and build better communities. It combines the goals of RUGGO, the values of the region, and the analysis of the Region 2040 project to guide growth for the next 50 years. Key components of the Recommend Alternative are described for land use and for transportation.

Land Use and Urban Form:

The following are categories of land use as defined and used in this Growth Concept.

Neighbor Cities:

The Recommended Alternative recognizes that neighboring cities surrounding the region's metropolitan area are likely to grow rapidly. Communities such as Sandy, Canby, and Newberg will be affected by the Metro Council's decisions about managing the region's growth. A significant number of people would be accommodated in these neighboring cities, and cooperation between Metro and these communities is necessary to address common transportation and land-use issues.

There are three key concepts for cooperative agreements with neighbor cities:

- There should be a separation of rural land between each neighboring city and the metropolitan area. If the region grows together, the transportation system would suffer and the cities would lose their sense of community identity.
- There should be a strong balance between jobs and housing in the neighbor cities. The more a city retains a balance of jobs and households, the more trips will remain local.
- The "green corridor," highway through a rural reserve serves as a link between the metropolitan area and a neighbor city without access to the farms and forests of the rural reserve. This would keep accessibility high, which encourages employment growth but limits the adverse affect on the surrounding rural areas.

Rural Reserves

These are rural areas that keep adjacent urban areas separate. These rural lands are not needed or planned for development but are more likely to experience development pressures than are areas farther away.

These lands will not be developed in the foreseeable future, an idea that requires agreement among local, regional and state agencies. They are areas outside the present urban growth boundary primarily that connect the region to neighboring cities.

New rural commercial or industrial development would be restricted. Some areas would receive priority status as potential areas for park and open space acquisition. Road improvements would specifically exclude interchanges or other highway access to the rural road system, similarly, there would be no extensions of urban services. Zoning would be for resource protection on farm and forestry land, and very low density residential (less than one unit for five acres) for exception land.

These rural reserves would support and protect farm and forestry operations. The reserves also would include some purchase of natural areas adjacent to rivers, streams and lakes to make sure the water quality is protected and wildlife habitat enhanced. Large natural features, such as hills and buttes, also would be included as rural reserves because they buffer developed areas and are poor candidates for compact urban development.

Rural reserves also would be retained to separate cities within the Metro boundary. Cornelius, Hillsboro, Tualatin, Sherwood and Wilsonville all have existing areas of rural land that provides a break in urban patterns. New areas of urban reserves, that are indicated on the Concept Map are also separated by rural reserves, such as the Damascus-Pleasant Valley areas from Happy Valley.

The primary means of achieving rural reserves would be through the regional framework plan for areas within the Metro boundary, and voluntary agreements among Metro, the counties, neighboring cities, and the state for those areas outside the Metro boundary. These agreements would prohibit extending urban growth into the rural reserves and require that state agency actions are consistent with the rural reserve designation.

Open Spaces

The areas designated open space on the Concept map are parks, stream corridors, wetlands and floodplains, largely undeveloped upland areas, or areas of very low density residential development. (These areas of residential development retain a highly open pattern and are generally unfenced). Many of these natural features already have significant land set aside as open space. The Tualatin Mountains, for example, contain major parks such as Forest Park and Tryon Creek State Park and numerous smaller parks such as Gabriel Park in Portland and Wilderness Park in West Linn. Other areas are oriented toward wetlands and streams, with Fanno Creek in Washington County having one of the best systems of parks and open space in the region.

Designating these areas as open spaces would have several effects. First, it would remove these land from the category of urban land that is available for development. The capacity of the urban growth boundary would have to be calculated without these, and plans to accommodate housing and employment would have to be made without them. Secondly, these natural areas, along with key rural reserve areas, would receive a high priority for purchase as parks and open space, such as Metro's Greenspaces program. Finally, regulations could be developed to protect these critical natural areas that would not conflict with housing and economic goals.

About 34,000 acres of land and water inside today's urban growth boundary are included as open spaces in the Recommended Alternative Map. Preservation of these Open Spaces could be achieved by a combination of ways. Some areas could be purchased by public entities, such as Metro's Greenspaces program or local park departments. Others may be donated by private citizens or by developers of adjacent properties to reduce the impact of development. Still others could be protected by very low-density residential zoning, clustering housing on portions of the land while leaving important features as common open space.

Centers

Creating higher density centers of employment and housing is advantageous for several reasons. These centers provide access to a variety of goods and services in a relatively small geographic area, creating a intense business climate. Having centers also makes sense from a transportation perspective, since most centers have an accessibility level that is conducive to transit, bicycling and walking. Centers also act as social gathering places and community centers, where people would find the "small town atmosphere" they cherish.

The major advantages of centers in the marketplace are accessibility and the ability to concentrate goods and services

in a relatively small area. The challenge, however, is that most of the existing centers are already developed and any increase in the density must be made through redeveloping existing land and buildings. Emphasizing redevelopment in centers over development of new areas of undeveloped land is a key strategy in the Recommended Alternative and favored by many citizens.

The Growth Concept recognizes three types of centers, distinguished by size and accessibility. The "central city" is downtown Portland and is accessible to millions of people. "Regional centers" are accessible to hundreds of thousands of people, and "town centers" are accessible to tens of thousands.

The Central City

Downtown Portland serves as our major regional center and functions quite well as an employment and cultural hub for the metropolitan area. It provides accessibility to the many businesses that require access to a large market area and also serves as the location for cultural and social functions that draw the region together. It is the center for local, regional, state, and federal governments, financial institutions, commerce, the center for arts and culture, and for visitors to the region.

In addition, downtown Portland has a high percentage of travel other than by car — three times higher than any other part of the region. Jobs and housing are readily available, without the need for a car. Maintaining and improving upon the strengths of our regional downtown should remain a high priority.

Today, about 20 percent of all employment in the region is in downtown Portland. Under the Recommended Alternative, downtown Portland would grow at the same rate as the rest of the region, and would remain the location of 20 percent of regional employment. To do this, downtown Portland's 1990 density of 150 people per acre would increase to 250 people per acre. Improvements to the transit system network and maintenance of the highway system would provide additional access to and from the city center.

Regional centers

There are seven regional centers, serving five market areas (outside of the Central City market area). Hillsboro serves that western portion of the region, and Gresham the eastern. Downtown Beaverton and Washington Square serve the Washington County area, and Clackamas Town Center and Milwaukie together serve Clackamas County and portions of outer south east Portland. Vancover serves Clark County. The Central city serves most of the Portland area as a regional center.

These Regional Centers would become the focus of compact development, redevelopment, and transit and highway improvements. The Recommended Alternative accommodates three percent of new household growth and 11 percent of new employment growth in these regional centers. From the current 24 people per acre, the Recommended Alternative would accommodate about 60 people per acre.

Figure 1 Developable Lands by Design Type - Recommended Alternative

	Design TypeTotal*	Vacant	Redeveloped
Central City	1,146	115	321
Regional Centers	1,719	154	447
Town Centers	2,156	514	346
Main Streets	2,758	186	352
Corridors/station communities	35,519	6,099	4,024
Employment Areas	7,763	3,591	1,121
Industrial Areas	15,045	5,930	3,376
Inner Neighborhoods	52,481	10,224	0**
Outer Neighborhoods	29,537	14,588	2,079***

* This is total net acres (built and vacant) within the design type.

** No redevelopment was assumed to occur in these areas.

***Assumes redevelopment would occur only outside the present urban growth boundary.

Figure 2. Redevelopment Assumptions for the Recommended Alternative

Design Type	Maximum Building Valuation per Acre
Central City	$480,000
Regional Centers	$360,000
Town Centers	$280,000
Main Streets	$240,000
Corridors/Commercial Centers	$160,000
Employment Areas	$40,000
Industrial Areas	$40,000
Inner Neighborhoods	-0-
Outer Neighborhoods (within Urban Reserves)	$120,000

Transit improvements for regional centers would include light-rail connecting all regional centers to the Central City. Highway improvements also would focus on ensuring that these centers are accessible as places to conduct business. Eventually, these centers would grow to the density of downtown Vancouver, Washington — about one-third of downtown Portland's density, but three times denser than these areas today.

Town centers

Smaller than regional centers and serving populations of tens of thousands of people, town centers are the third type of center with compact development and transit service. Town centers would accommodate about 3 percent of new households and more than 7 percent of new employment. The 1990 density of an average of 23 people per acre would nearly double — to about 40 persons per acre, the current densities of development along Hawthorne Boulevard and in downtown Hillsboro.

Town centers would provide local shopping and employment opportunities within a local market area. They are designed to provide local retail and services, at a minimum. They also would vary greatly in character. Some would become traditional town centers, such as Lake Oswego, Oregon City, and Forest Grove, while others would change from an auto-oriented development into a more complete community, such as Hillsdale. Many would also have regional specialties, such as office centers envisioned for the Ceder Mill town center. Several new town centers are designated, for example, in Happy Valley and Damascus, to accommodate the retail and service needs of a growing population while reducing auto travel. Others would combine a town center within a regional center, offering the amenities and advantages of each type of center.

Corridors

Corridors are not as dense as centers but also are located along good quality transit lines. An example of a present-day corridor are Beaverton-Hillsdale Highway or Macadam Avenue. They provide a place for densities that are somewhat higher than today and that are convenient to transit. Typical new developments would include rowhouses, duplexes, and one to three story office and retail buildings, and average 25 persons per acre.

Station Communities

Station communities are nodes of development centered around a light rail or high capacity transit station. They provide for the highest density other than that found in regional centers. The station communities would encompass an area approximately one half mile from a station stop. The densities of new development would average 45 persons per acre. Zoning ordinances now set minimum densities for most Eastside and Westside MAX station communities. An extensive station community planning program is now under way for each of the Westside station communities, and similar work is envisioned for the proposed South/North line. It is expected that the station community planning process will result in specific strategies and plan changes to implement the station communities concept.

Because the Recommended Alternative calls for many corridors and station communities throughout the region, they would together accommodate 27 percent of the new households of the region and nearly 15 percent of new employment.

Main streets

During the early decades of this century, main streets served by transit and characterized by a strong business and civic community were a major land-use pattern throughout the region. Examples remain in Hillsboro, Milwaukie, Oregon City and Gresham, as well as the Westmoreland neighbor-

Figure 3: Distribution of Households and Employment in 2040

Design Type	Households	Employment
Central City	3.3%	20.7%
Regional Centers	2.0	6.3
Town Centers	2.4	5.3
Main Streets	2.7	5.3
Corridors/station communities	32.7	24.8
Employment Areas	2.9	9.5
Industrial Areas	0.6	11.2
Inner Neighborhoods	33.5	10.1
Outer Neighborhoods	18.3	4.9
Open Spaces	1.6	1.8

hood and Hawthorne Boulevard. Today, these areas are undergoing a revival and provide an efficient and effective land-use and transportation alternative. The Recommended Alternative calls for main streets to grow from 1990 levels of 36 people per acre to 39 per acre. Main streets would accommodate nearly two percent of housing growth.

Main streets typically will serve neighborhoods and may develop a regional specialization — such as antiques, fine dining, entertainment, or specialty clothing — that draws people from other parts of the region. When several main streets occur within a few blocks of one another, they serve as a dispersed town center, such as the main street areas of Belmont, Hawthorne, and Division that form a town center for inner southeast Portland.

Neighborhoods

Residential neighborhoods would remain a key component of the Recommended Alternative and would fall into two basic categories. Examples of inner neighborhoods are Portland and the older suburbs of Beaverton, Milwaukie and Lake Oswego, and would include primarily residential areas that are accessible to employment. Lot sizes would be smaller to accommodate densities increasing from 1990 levels of about 11 people per acre to about 14 per acre. Inner neighborhoods have smaller lot sizes and better access to jobs and shopping. They would accommodate 28 percent of new households and 15 percent of new employment (some of the employment would be home occupations and the balance would be neighborhood- based employment such as schools, child care and some neighborhood businesses).

Outer neighborhoods would be farther away from large employment centers and would have larger lot sizes and lower densities. Examples include outer suburbs such as Forest Grove, Sherwood, and Oregon City, and any additions to the urban growth boundary. From 1990 levels of nearly 10 people per acre, outer neighborhoods would increase to 13 per acre. These areas would accommodate 28 percent of new households and 10 percent of new employment.

One of the most significant problems in some newer neighborhoods is the lack of through streets, a recent phenomenon that has occurred in the last 25 years. It is one of the primary causes of increased congestion in the region. Traditional neighborhoods contained a grid pattern with up to 20 through streets per mile. But in new areas, one to two through streets per mile is the norm. Combined with large scale single-use zoning and low densities, it is the major cause of increasing auto dependency in neighborhoods. While existing neighborhoods probably will not change, areas of largely vacant land should develop master street plans to including at least ten through local streets per mile, which would allow for better access and still allow some albeit short, cul-de-sacs.

Employment areas

Industrial areas would be set aside exclusively for industrial activities. They include land-intensive employers, such as those around the Portland International Airport, the Hillsboro Airport and some areas along Highway 212/224. Industrial areas are expected to accommodate ten percent of regional employment and no households.

Other employment centers would be designated as mixed-use employment areas, mixing various types of employment and including some residential development as well. These mixed-use employment areas would provide for about five percent of new households and 14 percent of new employment within the region. Densities would rise substantially from 1990 levels of about 11 people per acre to 20 people per acre.

Urban Reserves

One important feature of the Recommended Alternative is that it would accommodate all 50 years of forecasted growth through a relatively small amount of urban reserves. Urban reserves consist of land set aside outside the present urban growth boundary for future growth. The Recommended Alternative proposes approximately 14,500 acres of Urban Reserves to be chosen from a study area of about 22,000 acres. In the example reflected in the analysis map over 75 percent of these lands are currently zoned for rural housing and the remainder are zoned for farm or forestry uses.

Transportation Facilities

Transportation elements are needed to create a successful growth management policy that supports the Recommended Alternative. Traditionally, streets have been defined by their traffic-carrying potential, and transit service according to it's ability to draw commuters. Other travel modes have not been viewed as important elements of the transportation system. The Recommended Alternative establishes a new framework for planning in the region by linking urban form to transportation. In this new relationship, transportation is viewed as a range of travel modes and options that should reinforce the region's growth management goals.

Within the framework of the Recommended Alternative is a network of multi-modal corridors and regional through-routes that connect major urban centers and destinations. Through-routes provide for high-volume auto and transit travel at a regional scale, and ensure efficient movement of freight. Within multi-modal corridors, the transportation system will provide a broader range of travel mode options, including auto, transit, bicycle and pedestrian networks, that allow choices of how to travel in the region. These travel options will encourage the use of alternative modes to the auto, a shift that has clear benefits for the environment and the quality of neighborhoods and urban centers.

Regional through-routes

These are the routes that move people and goods around the region, and connect regional centers and the Central City. They include freeways, limited access highways, and heavily traveled arterials, and usually function as through-routes. As such, they are important not only because of the movement of people, but as one of the region's major freight systems. Since much of our regional economy depends on the movement of goods and services, it is essential to keep congestion on these roads at manageable levels. These major routes frequently serve as transit corridors but are seldom conducive to bicycles or pedestrians because of the volume of auto and freight traffic that they carry.

With their heavy traffic, and high visibility, these routes are attractive to business. While they serve as an appropriate location for auto-oriented businesses, they are poor locations for businesses that are designed to serve neighborhoods or sub-regions. Neighborhood uses are better located on multi-modal arterials. Through routes need the highest levels of access control, but it is important that they not become barriers to movements across them by other forms of travel, auto, pedestrian, transit, or bicycle. Through routes should focus on providing access to centers, rather than access to the lands that front them.

Multi-modal arterials

These represent most of the region's arterials. They include a variety of design styles and speeds, and are the backbone for a system of multi-modal travel options. Older sections of the region are better designed for multi-modal travel than new areas. Although these streets are often smaller than suburban arterials, they carry a great deal of traffic (up to 30,000 vehicles a day), experience heavy bus ridership along their routes and are constructed in dense networks that encourage bicycle and pedestrian travel. The Regional Transportation Plan (RTP) should identify these multi-modal streets and develop a plan to further encourage alternative travel modes within these corridors.

Many new streets, however, are designed to accommodate heavy auto and freight traffic at the expense of other travel modes. Multiple, wide lanes, dedicated turning lanes, narrow sidewalks exposed to moving traffic, and widely-spaced intersections and street crossings create an environment that is difficult and dangerous to negotiate without a car. The RTP should identify these potential multi-modal corridors and establish design standards that encourage other modes of travel along these routes.

Collectors and local streets

These streets become a regional priority when a lack of adequate connections forces neighborhood traffic onto

arterials. New suburban development increasingly depends on arterial streets to carry trips to local destinations, because most new local streets systems are specifically designed with curves and cul-de-sacs to discourage local through travel by any mode. The RTP should consider a minimum standard of eight to ten through streets per mile, applied to developing or undeveloped areas to reduce local travel on arterials. There should also be established standard bicycle and pedestrian through-routes (via easements, greenways, fire lanes, etc.) in existing neighborhoods where changes to the street system are not a reasonable alternative.

Light rail

Light rail transit (LRT) daily travel capacity measures in tens of thousands of riders, and provides a critical travel option to major destinations. The primary function of light rail (LRT) in the Recommended Alternative is to link regional centers and the Central City, where concentrations of housing and employment reach a level that can justify the cost of developing a fixed transit system. In addition to their role in developing regional centers, LRT lines can also support significant concentrations of housing and employment at individual station areas along their routes. LRT also supports land use, especially in anchoring downtown Portland.

Regional design images

In *Concepts for Growth* we included designs of specific areas of the region which illustrated what kinds of land use changes could be undertaken to accommodate growth in the area. We did not complete such site specific designs for the Recommended Alternative, although we do have a way to illustrate the kinds of development types that would have to be built to achieve the Recommended Alternative.

Residential development, particularly single family detached housing, uses the largest amount of land within the urban growth boundary. For this reason, changes to residential density have the greatest effect on the amount of urban land needed. In the Recommended Alternative 62 percent of new residential development would be single family homes, this compares with 70 percent single family development in 1990.

Outer Neighborhoods

Below is an example illustration representing single family homes at 6.6 net homes per acre. The Recommended Alternative assumes 5.7 houses per net acre, or 11 persons were acre. Assuming 25 percent of the land is used for streets, utilities, etc., the average lot size would be approximately 7,560 square feet. If streets are built more narrowly, average lot size could be larger. In the Recommended Alternative, the lowest density urban residential areas are called "Outer Neighborhoods". These Outer Neighborhoods are away from the center of the region along the outer edge of the UGB and in the urban reserves. They represent people trading larger lot size for greater distances to most jobs.

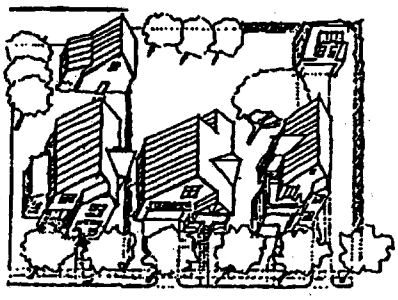
(*Note:* the diagrams are to scale, in this and the succeeding diagrams the outside box represents the size of land area necessary to accommodate 100 dwelling units. The subheading lists the acres needed to fit 100 of the units. For example, for the standard-lot, single family home below you would need 15 net acres for 100 homes.)

In the Outer Neighborhoods, the average lot size would be somewhat smaller than the current region-wide average of 8,500 square feet. However, the current average includes lots as large as a half acre, about 20,000 square feet. A small number of lots this size can substantially increase the average. The most common new lot size being developed in the region is about 7,500 square feet, in line with what the Recommended Alternative is suggesting. Outer neighborhoods would account for approximately 28 percent of the new households of the region.

Inner Neighborhoods

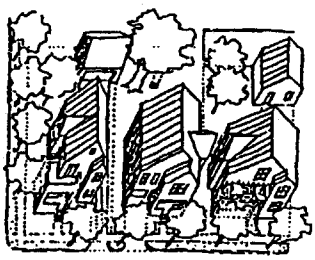
Inner Neighborhoods are closer-in residential areas with an average lot size of 5,700 square feet, 7.6 units per net acre. This would be 13 person per acre. These neighborhoods would accommodate about 21 percent of new households. It should be noted that most of the pre-World War II single family homes in the region are on 5,000 square foot lots, so the Recommended Alternative is suggesting a residential pattern slightly less dense than many existing neighborhoods. The Inner Neighborhood, however, is denser than many existing suburban neighborhoods, particularly those built in the 1960s and 1970s

Standard-Lot Single-Family
1.5ac/100du



Standard-Lot Single-Family
1-2 story buildings
Parking in recessed or alley accessed garages
6.6 dwelling units per acre
Ownership

Small-Lot Single-Family
9.4ac/100du



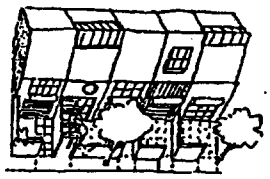
all-Lot Single-Family
-2 story buildings
Parking in recessed or allewy accessed garages
10.6 dwelling units/acre
Ownership

Both Inner and Outer Neighborhoods are expressed in average number of homes per net buildable acre. As with all averages, different mixes of smaller and larger lots could be used to achieve the average. A type of smaller lot development is illustrated below, this example accommodates 10 net homes per acre.

Corridors and Station Communities

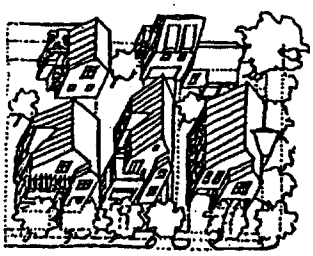
Corridors are not as dense as centers (see below) but are also located along good quality transit lines. Examples of present day corridors are the Beaverton-Hillsdale Highway and Macadam Boulevards. They would provide a place for densities that are somewhat higher than today, should have a quality pedestrian environment and are convenient to transit. Corridors would grow from 1990 densities averaging approximately 18 people per acre to an average of approximately 22 people per acre. This would be on average 12.5 units per net acre. Typical development along corridors would include rowhouses, duplexes and one to three story office and retail buildings.

Townhomes
4.5ac/100du



Townhomes
1-2 story buildings
Parking in alley accessed garages
22 dwelling units/acre
Ownership

Carriage Units (w/In-Law)
6ac/100du

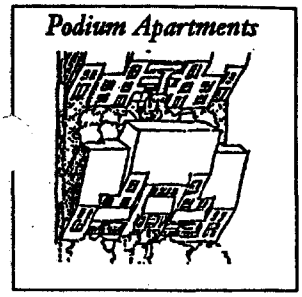


Carriage Units (with In-Law)
1-2 story buildings
Ancillary (in-law) unit placed over detached garage
Parking in alley accessed garages
16.6 dwelling units/acre
Ownership

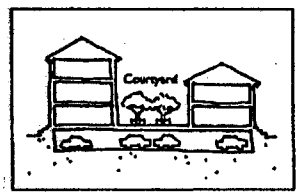
Station communities are nodes of development organized around a Light Rail or High Capacity transit station. They provide for the highest density outside of centers. The station communities would grow from 1990 densities averaging approximately 22 persons per acre to an average of 45 persons per acre, or 23 housing units per net acre. Minimum densities have been established for most Eastside and Westside MAX station communities. An extensive station community planning program is now under way for each of the Westside Light Rail station community areas. Similar work is envisioned for the proposed South/North line. It is expected that the station community planning process will result in specific strategies and plan changes to implement the station communities concept.

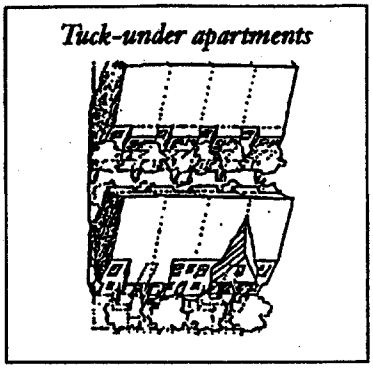
The illustrations below show carriage homes and townhouses (rowhouses) which provide home ownership, but are able to accommodate many more households. For example, the carriage homes (with an "in-law" unit) accommodate 16 net homes per acre, while townhouses accommodate 20-22 homes per net acre. Twenty percent of the single family homes in the Recommended Alternative would be small lot or townhouse types.

In summary, there are three important points about these residential housing types. First, many people will continue to live in larger lot single family homes. Secondly, our demographic forecasts indicate that the population of the region will be changing. The portion of the population age 65 or over will increase from 13 percent (1990) to about 24 percent (2040). Household size is also expected to decrease. These trends could support smaller, more compact residential patterns. Finally, small decreases in average lot size greatly reduce the amount UGB expansion needed. A reduction from the current average lot size of 8,500 square feet to 7,000 square foot will save about 15,000 acres of land that otherwise would need to be added to the UGB, an area about the size of Gresham. Most of the increased density needed in order to minimize expansions of the UGB can be accommodated by no more than two story homes on their own lot. Keep in mind that the above illustrations are to scale and show a way for 100 households to be accommodated. Compare the size of the overall square (which represents the space needed to fit 100 dwelling units) with the others; with more density, less land is used.

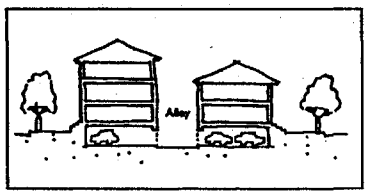


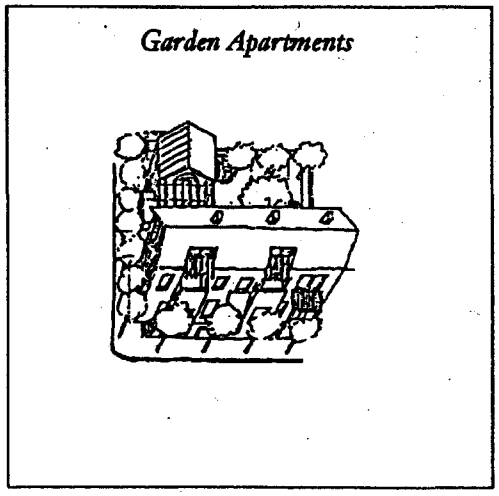
Podium Apartments
3-4 story buildings
Structured parking is placed below grade and interior to the building
66 dwelling units/acre
Rental or condominiums



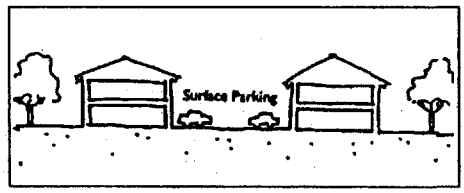


Tuck-under Apartments
2-3 story buildings
At grade parking is placed in parking garages that are tucked under the building
40 dwelling units/acre
Rental or condominiums





Garden Apartments
2-3 story buildings
Surface parking is placed in central parking courts or behind buildings
26 units per acre
Rental or condominiums



Neighborhood, Town and Regional Centers

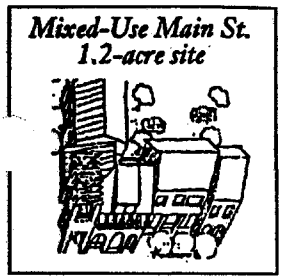
Multi-family development in 1990 provided 32 percent of total housing units. Under the Recommended Alternative, 38 percent of new housing units would be multi-family housing. This would include apartments (both rental and ownership possible) as illustrated below. The podium apartments represent the type of residential development in Regional Centers, the "tuck-under" units are similar to the densities in Town Centers and Main Streets, while the garden apartments represent building types in Neighborhood Centers.

However, some of the multi-family homes would be a part of mixed use developments adjacent to transit stops either along corridors or in commercial, town, regional or city centers. These multi-family types are illustrated below. The major difference between them is how parking is accommodated. In the "retail-office-residential mixed-use", the buildings are four to five stories in height with structured parking. The "retail-residential mixed-use" is two to three stories with surface parking.

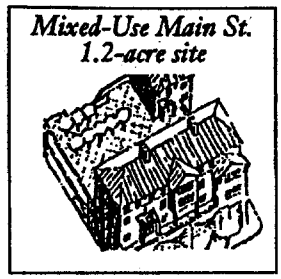
As noted earlier, over 60 percent of all new jobs would be accommodated in the centers or corridors designated in the Recommended Alternative. These areas are intended to be compactly built and well served with transit. Office structures are a way to accommodate much of the employment in centers and corridors. Of course the mixed use structures included above would also provide places for employment in the centers and corridors.

Employment Areas and Industrial Areas

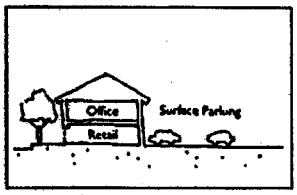
In the Employment Areas, a mix of land uses would be encouraged. The primary use would be employment, but residential uses would also be allowed. Employment areas would mix commercial, light industrial and residential uses in a compact way, providing affordable and convenient housing while reducing auto dependence. The uses in Employment areas would not necessarily be within one

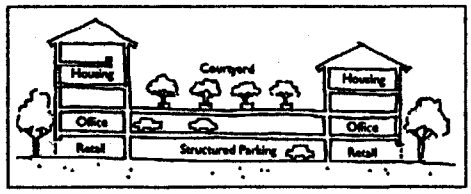


Retail Office Mixed Use
2-3 Story Buildings (ground floor retail with office space above)
Surface parking is placed behind the building
137 jobs/acre



Retail-Office-Residential Mixed Use
4-5 story buildings (ground floor retail, 1-2 levels of office and 2-3 levels of retail)
Structured Parking is placed below grade or interior to the building
125 jobs/acre
62.5 swelling units/acre





building, but would be in relatively close proximity to each other.

Industrial areas are reserved for employment, residential uses would not be allowed, and many retail and commercial uses would be discouraged. Traditional uses, building types and employment are assumed to continue in these areas.

Recommended Alternative Analysis

As indicated above, we prepared an example of how the Growth Concept could be construed. This enables us to show at least one way in which the Growth Concept could work. It is consistent with the analysis map and the results are described below.

Land use

In order to better understand what the Recommended Alternative would require to be implemented, Figure 1 shows the total acres and buildable land (vacant and redevelopable) assumed for each design type. The vacant lands are actual numbers of acres inventoried as buildable, while the redeveloped acres are assumed to redevelop over the next 50 years.

The biggest vacant land supply is in the neighborhood categories where almost 23,000 vacant acres exist. The other large supply is in the Employment Areas and Industrial areas, where 9,500 acres of vacant land exist and about 4,500 acres of redevelopable land were assumed.

The larger centers - town, regional and city - have small amounts of vacant buildable land - in total less than 800 net acres. These vacant lands are supplemented by redevelopable lands totaling an additional 1,100 net acres. Accordingly, 37 percent of the total developable land in these centers would need to be intensified in order to implement the Recommended Alternative.

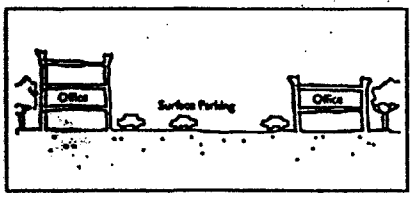
While Main Streets also show very little available land when compared with some design types, redevelopment would allow these areas to capture almost twice the development potential available through the vacant land supply. Corridors and commercial centers with over 6,000 acres of vacant land and 4,000 acres of redevelopment land utilize 27 percent of the buildable land within the design type for accommodating growth.

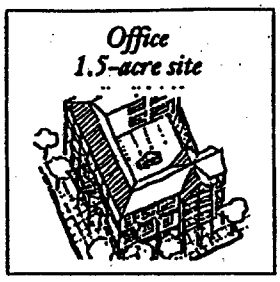
Redevelopment plays a key role in of the Recommended Alternative. Current building valuations were used to establish long term redevelopment potential. The following table shows the maximum building valuation used for choosing redevelopment according to the design categories used.

Over 50 years, buildings with relatively low valuations were assumed to redevelop in the centers, main streets, and corridors. No redevelopment was assumed in neighborhoods except those in potential Urban Reserves even though a modest level of redevelopment will occur of very low value buildings. Only low value buildings (less than $40,000/acre) were assumed to redevelop on industrial or mixed use employment land. These redevelopment criteria allowed 21 percent of new households and 18 percent of new employment to be accommodated through redevelopment. Redevelopment of higher value properties in the Central City and

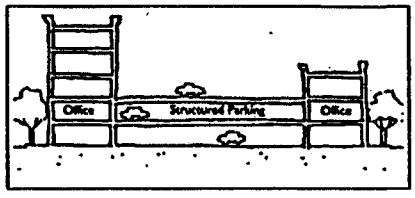
Office (Low intensityu)
2-3 story buildings
Surface parking is placed behind the building
All buildings orient to streets of public plazas and parks
80% floor area ratio assumed

Office jobs are calculated at 440 gross sq ft./ employee or 95 jobs/acre.
1 parking space/office employee on site





Office (high intensity)
4-5 story buildings
Structured parking is placed below grade or interioir to the building
All buildings orient to streets or public plaza and parks
200% floor are ratio assumed
Office jobs are calculated at 340 gross sq. ft./ employee or 300 jobs/acre
1 parking space/office employee on-site.



Regional Centers would occur over time as more development takes place and land values rise.

It is important to understand that redevelopment includes intensification of a site, and it does not necessarily destroy the existing buildings on the site. For example, new buildings in the parking lot of an existing complex is one common type of redevelopment. Conversion of a single family home to an office or restaurant is another common example of redevelopment that conserves existing structures. Redevelopment thorough additions to existing structures would be more common outside the central city area, where existing densities are low.

11,000 acres or 57 percent of the redevelopment land occurs in mixed use areas. This 11,000 acres represents only six percent of the gross developable acres in the region. The redevelopment land in the Central City would accommodate 70 percent more employees (80,000) as it did in 1990. Regional Centers would utilize redevelopment land at almost three times the existing density. Town Centers would double the capacity on redevelopment land, as did main streets. Similarly, redevelopment along corridors create a threefold increase of the housing units there - a net increase of 30,500 households. The centers' housing density would increase on redevelopment land by more than five-fold, from 1,000 - 1,500 units in 1992 to 5,000 - 10,000 units in 2040. This growth is the result of the greater density called for in these areas. Designations in the Recommended Alternative would allow higher density condominiums and apartments (30 - 150 units/acre, 2-8 stories). Redevelopment in centers and corridors reinforces transit and provides the opportunity for more non-auto trips and concentrates redevelopment and higher density in relatively small portions of the region - as compared with increasing densities throughout the region.

The overall distribution of households and employees by design type in 2040 can be seen in Figure 3.

The Central City would maintain its current share of 20 percent of regional employment by adding 80,000 jobs. The Regional Centers would double their share of employment (to 6 percent) adding 40,000 employees. The Town Centers would increase their employment share from 3 percent to 5 percent with 27,000 jobs. Corridors and station communities would lose a small percentage of their regional share mostly due to the effects of new growth on vacant land in new urban reserves and elsewhere, but they still receive 64,000 jobs. Employment Areas would still add a sizeable amount - 50,000 jobs. The Industrial Areas would maintain approximately 12 percent of the region's employment by adding 35,000 jobs. Employment in neighborhoods (home occupations or jobs located in schools, child care centers or very small commercial sites) would remain approximately constant with today's share (15 percent), locating 37,000 new jobs there.

The large household increases occur in corridors and commercial centers (100,000 new households), and in neighborhoods (175,000 new households). The corridors' share of the region's households would drop slightly as expansion and new growth dilute corridor concentrations. The household share drops for closer-in neighborhoods, but rises for those further out in the new Urban Reserve areas, where the regional share rises markedly as 59,000 households locate beyond the current UGB (16 percent of the new residents). The Corridors and Centers add almost 41,000 households increasing their share of residents by 50 percent. Employment Areas also receive about 20,000 households - a six-fold increase in what was almost exclusively employment land before.

To the extent that the area inside the current UGB can't accommodate additional growth, Urban Reserves would be needed. These are areas designated to be converted to urban ses if and when a need for additional urban land is found. The Recommended Alternative would require potential Urban Reserves of 14,500 gross acres.

The potential Urban Reserves designation considered state and regional criteria. The ability to serve areas with sanitary sewer and water, access to jobs, potential health hazards and avoidance of exclusive farm use zones were weighed. In Rural Reserve areas the desire to keep communities separate and efficient provision of facilities and services were considered. The potential Urban Reserves Map is intended to provide an overall direction for decision makers. Property specific designations of Urban Reserves will occur after the Metro Council concludes its decision about the Recommended Alternative.

In contrast to Urban Reserves, Rural Reserves have been included as a category in the Recommended Alternative to protect rural areas. The Rural Reserves are areas into which no expansion of Urban Reserves or the UGB will be allowed. They are intended to protect commercial, agricultural and forest activities, providing separation between urban areas. isting large lot rural residential uses would be allowed to continue as would development of existing lots of record, five acres or larger. However, no expansion of large lot residential zoning would be permitted.

Neighboring cities, or those cities directly connected to the Metro region by a major highway or road, are also addressed in the Recommended Alternative. About 86,000 residents and 49,000 jobs are planned to be accommodated in neighboring cities, primarily Sandy, Canby and Newberg. These cities administer their own urban growth boundaries, independent of Metro urban growth boundary decisions. These communities, either within their present UGB or Urban Reserves adopted or under review, could accommodate these jobs and households. However, the issue of maintaining separation between urban areas is of mutual interest to Metro and the neighboring cities as are issues of access and job creation.

Transportation

The Region 2040 Recommended Alternative establishes a land use context for future transportation planning efforts. We modeled transportation networks for the three concepts and the Recommended Alternative. The results allow us to examine the viability of the Recommended Alternative urban form and our ability to serve a growing population with a balanced transportation system. As we refine the Regional Framework Plan, the interplay between transportation and land use needs will continue to shape both urban growth and regional transportation policies.

Though detailed, our modeling does not address cost effectiveness of the networks or potential land use impacts, and is not intended to be a comprehensive study of specific transportation needs. Instead, actual transportation needs, corridors and modes will be established in an updated Regional Transportation Plan (RTP). The updated RTP will serve as the transportation element of the Regional Framework Plan, and will address transportation planning requirements of the Metro charter, state Transportation Planning Rule and Federal ISTEA.

Once the updated RTP is complete, detailed transportation alignments may need to be developed to implement specific corridors within the region. We will also work closely with local planners to further coordinate regional transportation goals with the development of local transportation plans.

Connecting land use and transportation

Two principles guided the development of the transportation system in the Recommended Alternative - coordination of land use pattern and transportation decisions and a balanced transportation system. This was done by creating a network where the Recommended Alternative land uses and urban form were fully complemented by a range of transportation options. In general, urban centers are connected by a set of multi-modal corridors that accommodate auto, transit, bicycle and pedestrian travel to varying degrees.

Regional Centers and the Central City would have the most intensive package of transportation improvements and services, reflecting their central role. They would be easily accessible by multi-modal corridors and would have efficient pedestrian and bicycle circulation within the Centers. Town Centers would be similarly served with a multi-modal range of travel options, but the magnitude of transportation infrastructure would be generally less than the Regional Centers. Corridors, Station communities, and Main Streets would be characterized by high-quality transit service, bicycle and pedestrian amenities along the roadways, and less auto traffic than other arterial streets.

Employment Areas and Industrial Areas would have more roadway connections, especially truck routes and better access to the regional highway network and would have specialized transit service to major destinations.

The Recommended Alternative also focused on connectivity and the development of Regional Centers. Our primary objective in designing the preferred roadway network was to create a dense, connected system that dispersed travel demand and reinforced the regional centers. Using the current RTP as a starting point, local planners helped us determine where collector and arterial streets could be connected, and where new streets could be extended. These new connections were designed to enhance auto, transit, bicycle and pedestrian travel options throughout the region, and particularly in the vicinity of the Regional Centers.

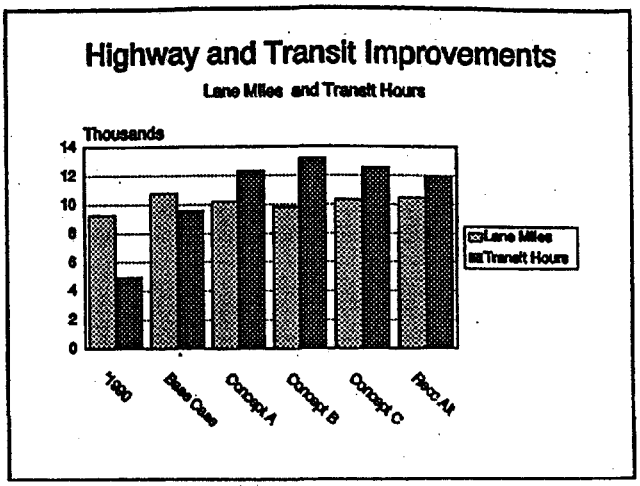
Another feature of the transportation system was keeping arterials livable. While peak-hour congestion at street intersections is to be expected, local planners helped us define parallel routes that might improve local circulation, while avoiding the development of massive arterial streets whose scale discourages the use of non-auto modes and undermines livability. In some cases, proposed highway-type facilities were dropped in favor of a series of smaller-scale arterial and collector street connections.

Major highway through-routes to connect Regional Centers and Neighboring Cities

New highways have the potential to enhance the development of Regional Centers and the movement of goods throughout the region. However, new highways can also encourage urban sprawl, and undermine the viability of Regional Centers.

The Mt. Hood Parkway is included in the recommended network to reinforce the Gresham Regional Center, provide a freight route from I-84 to Highway 26 and better connect Sandy — a Neighboring City in the Recommended Alternative — to the urban area. The parkway is modeled with limited access, an I-84 interchange, split access to the Gresham Regional Center, and an interchange at Highway 26.

The southern alignment of the Sunrise Highway is similarly modeled as a second route to Sandy, a freight connection from I-205 to Highway 26, and to support development of the Clackamas and Milwaukie Regional Centers. The



Sunrise Highway modeling assumes limited access, with interchanges at I-205, the Clackamas industrial area, Rock Creek, Damascus and Highway 26. The southern alignment is used because it best supports the development of the Damascus Town Center. Although the actual model contains a "build-out" of the highway, the inclusion of the Sunrise route assumes a phased-in approach, with the portion west of Damascus improved first, along with the acquisition of right-of-way and construction of the segment extending east of the proposed urban reserve boundary. The remaining sections would be improved over time, reflecting gradual development of the Damascus town center.

Finally, a new Highway link from I-5 to 99W, is included as a freight connection, and as a primary route to Newberg — one of the two neighboring cities included in the Recommended Alternative. This connection is also intended to divert through-traffic from Highway 99W and Tualatin-Sherwood Road that might otherwise undermine the development of town centers in Tualatin and Tigard. To improve circulation and access in Washington county, new arterials and collector streets were modeled in the area between US 26 and Tualatin Valley Highway. New freeway capacity was added to Highway 217. To address freight movements from Washington County to the I-5 corridor, capacity was added to Highway 217 in the model. North/South from Tualatin Valley Highway to Highway 26, was not included as a freeway, but a package of North/South arterial and collector street improvements was modeled to improve mobility in this area for all modes of travel.

Although not included in our modeling, the growth of neighboring cities, such as Sandy and Newberg, along major freight routes will ultimately affect through-travel, and could

create a need for bypass routes. Such impacts should be considered as part of implementing the Regional Framework Plan and each of these local comprehensive plans.

Light Rail connections

Tri-Met staff led the effort to design a Recommended Alternative transit system. The backbone of the transit network is a series of radial Light Rail Transit (LRT) corridors that connect the Regional Centers to the Central City. These radial routes include the Banfield and Westside LRT lines, and LRT routes south to Milwaukie and Clackamas Town Center, north to Clark County, and a Westside spur to Washington Square. Several alignments are conceptual, actual alignments of planned connections will be determined in later, more detailed studies.

In addition to an extensive network of local bus lines, we have included a new level of service, called Fastlink, that offers streamlined, express-type service to Regional Centers and along major corridors. Although still under development, FastLink service is envisioned to be a bridge between light rail and traditional bus service, with amenity-oriented buses that serve more widely-spaced "stations".

Critical aspects of the transit system are improvements made to the road network and pedestrian improvements. The road improvements discussed above increase connectivity for autos, transit, bikes and pedestrians. In addition to improved street connectivity in the vicinity of Regional Centers, bicycle and pedestrian travel is encouraged in the Recommended Alternative through improved amenities (modeled as pedestrian environmental factors, or PEFs) within the regional centers, and parking cost factors applied to auto travel to the centers. As the Regional Framework Plan is developed these modelling considerations will be translated into bicycle and pedestrian system improvements and parking management programs tailored to each of the six Regional Centers.

The Recommended Alternative assumes a series of "Green Corridor" transportation links to neighboring cities that span Rural Reserves. In the cases of Sandy and Newberg, the Green Corridors feature high performance, limited access highways, high-quality transit, and bicycle and pedestrian facilities that give easy access to the neighboring cities while minimizing urban development pressure on the intervening rural landscape.

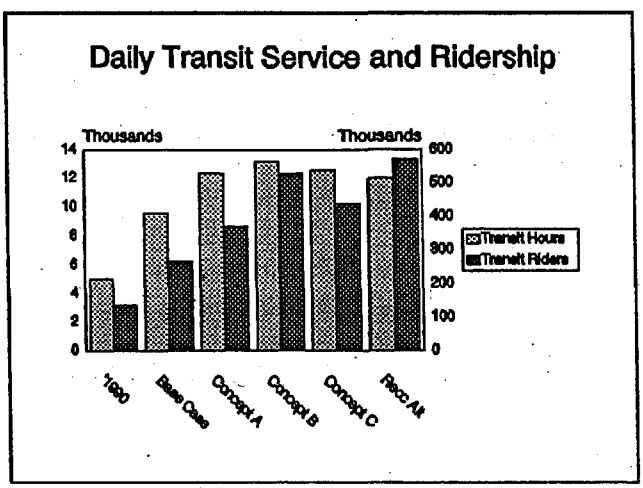
Although other outlying towns are not planned to absorb a significant share of growth in the Recommended Alternative, many are already experiencing growth today. Though major transportation improvements to these towns are not included in the Recommended Alternative, existing highway links to these cities that travel through rural areas are still designed as Green Corridor facilities in the Recommended network.

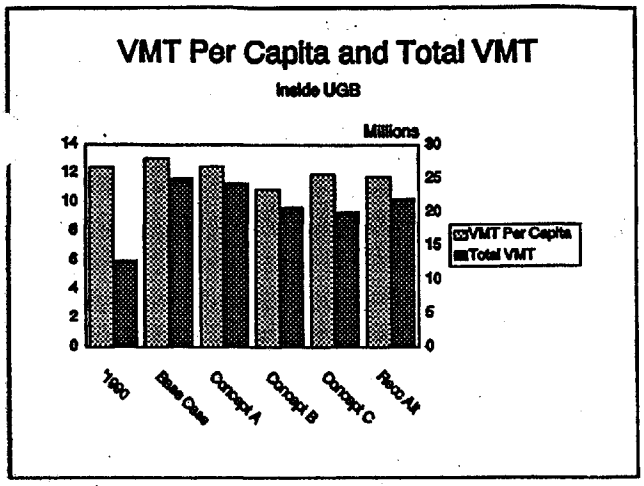
As with the previous growth concepts, we modeled a possible transportation system for the Recommended Alternative. The results are heartening.

With a road network somewhat larger than the other growth concepts, but a compact form, the Recommended Alternative is projected to have less congestion than both Concepts A and B. Only Concept C, which assumes that one-third of future growth will be in neighboring cities, would have slightly less congestion. However, overall congestion in the Recommended concept would still be double today's levels.

Our analysis of the model results also shows that areas of the region with dense networks of through streets would have less P.M. peak-hour congestion, including close-in neighborhoods near the Central City. In contrast, areas with a more dispersed, less connected roadway system are projected to have significant peak-hour congestion — despite a number of modeled roadway additions to these more dispersed networks.

Though transit service in the Recommended Alternative was less extensive than any other growth scenario, the close coordination of land use and transit helped to produce had the best transit ridership of any concept. Transit ridership was also encouraged in the Recommended Alternative by





modeled parking factors and pedestrian amenities in urban centers and transit-supportive corridors. Despite a less extensive light rail system than other growth concepts and the addition of more land to the urban area in this scenario, the percentage of jobs and households served by transit in the Recommended Alternative would be nearly the same as current levels.

With regard to the state Transportation Rule requirement of 20 percent reduction in vehicle miles travelled (VMT) over the next thirty years, the Recommended Alternative would achieve a drop of just over five percent during the 50-year planning period. Though less than Concept B, this VMT per capita reduction is better than the other scenarios.

These modelling conclusions show the feasibility of serving the Preferred Alternative urban form with a balanced, attainable transportation system. Such a system provides for continued mobility via the automobile, ensures freight efficient movement on the regional highway system and offers attractive passenger travel options to the automobile via transit, bicycle and pedestrian modes.

What can we improve?

The lessons learned from developing the Recommended Alternative will provide a valuable starting point for updating the RTP. While individual road and transit links were modeled in a conceptual manner, the Recommended Alternative will still help us address key policy issues about the transportation modes, the need to complement transit routes with supporting land uses, and the need to limit the impact of urban travel routes on rural land uses.

The Recommended Alternative also gives us valuable data with which to establish specific objectives and indicators for transportation service and performance. These may include roadway density vs. capacity ratios, transit service thresholds, bicycle and pedestrian accessibility targets, freight movement considerations and levels of tolerable peak-hour congestion in specific urban environments and situations.

Parks and open space

The primary objective is to preserve natural areas and open spaces within an intensifying metropolitan area so that the region has active and passive recreational opportunities and is not exclusively urban from one end of the UGB to the other. The Recommended Alternative specifically accounts for open space on its map and in its capacity analysis. Within the definition of open space is included public and private land that cannot be built on because it is in floodplains, wetlands, and parks (15,300 acres). Additional land would be added that buffers stream corridors and significant topographic features as well as significant habitat areas from the Greenspaces Master Plan. These additions would bring the total open spaces to 34,000 acres. Much of the open spaces are vacant and privately owned (12,350 acres). Of the vacant land only 5,000 gross acres is considered buildable when environmental constraints and gross to net reductions are taken into account.

A portion of the total open space (6,400 acres) is already developed, but at very low densities. While development within areas designated as open space would not be expected to be removed, additional development would be discouraged. In addition, while some areas of privately owned, undeveloped land may be designated as open space, the intent is to encourage the local jurisdictions to conserve these open spaces by clustering any permitted density, leaving the bulk of the remaining land undeveloped.

Air quality

Air quality concerns carbon monoxide (CO) in the winter and ground level ozone (O3) in the summer. Forecasts show potential problems with the ground level ozone, beginning in 2007. These problems will be exacerbated by all pollution sources, not only transportation related sources.

None the less, air quality modeling results for transportation sources were encouraging. When the Recommended

Alternative is compared with the other growth concepts, relatively low levels of transportation generated air pollutants are projected. For a seven county region (Clackamas, Clark, Columbia, Marion, Multnomah, Yamhill and Washington counties) the Recommended Alternative would have the lowest forecast levels of CO. On a four county basis, the Recommended Alternative would generate slightly more CO than Concept C, but less than any of the other growth concepts.

The Recommended Alternative, on a seven county basis, would have the second lowest level of projected transportation generated hydrocarbons, while on a four county basis, concepts B and C would generate somewhat less. It should be kept in mind that because of fleet emission improvements, the projections for hydrocarbon and CO levels from transportation sources are less than existing (1990) levels. That is, for two important air pollutants, transportation will generate less pollutants than today.

However, for the third key pollutant, oxides of nitrogen, all growth concepts would show an increase from transportation sources. For the seven county area, concept B would generate less oxides of nitrogen than any other, while the Recommended Alternative would be second best. For the four county area, the Recommended Alternative again is projected to have slightly more air pollution that concept B, but would have better predicted performance than all other growth concepts.

Employment

As indicated in *Concepts for Growth*, given our population and employment forecasts it appears that in aggregate there is sufficient land for employment uses. The Recommended Alternative, although different than the other analyzed concepts, includes very similar amounts of employment land. If the same analysis method is used, we would conclude that some areas, particularly in Hillsboro and along the Columbia South Shore, appear to have more land than is likely to be needed over the 50 year time horizon of the study.

Having a surplus of such land may provide flexibility in locational decisions, although some land owners may question the designation if development is not feasible because of lack of market demand. Regardless, a more public concern is the balance between jobs and housing in the region. The jobs housing table below shows each of the Regional Centers and the areas for which a jobs/housing ratio was calculated under the Recommended Alternative.

Portland would continue to be a jobs rich area, while other areas such as Clackamas Town Center would become more housing rich than they currently are. The overall trend is towards more housing and less jobs. This is in line with national trends for the time period due to the aging of the population. The need for housing remains, but the percentage of the population participating in the workforce will decline as greater numbers of people are retired.

Housing

As noted earlier, the largest amount of land in the region is devoted to residential uses. Of this, by far the most land is used for single family development. With the Recommended Alternative, the new development, which would be at a ratio of 62 percent single family to 38 percent multi family, is more compact than existing development, with a ratio of 70 percent single family to 30 percent multi family. However, the Recommended Alternative includes as single family about 78,000 new homes that would be built at 10.5 dwelling units per gross acre - average lot sizes of 3,000 square feet or less. These units comprise about 20 percent of the total new single family units assumed to be built over 50 years. These higher densities could be met by combinations of single family and multi-family, accessory units (or "granny flats") or developments such as rowhouses, duplexes, and small lot single family along corridors and in Station Communities.

New housing in the centers is almost exclusively multi-family, while the neighborhood categories are predominantly single family. This difference between centers and neighborhoods reflects the strategy in the Recommended Alternative to locate higher density housing only in very accessible locations. The corridors and station communities show a mix of housing (35 percent single family to 65 percent multi-family) that often borders both transit and neighborhoods.

The Metro Housing Rule was set both to contain the UGB and ensure affordable housing. If we move away from jurisdictional goals to the target areas in the Recommended Alternative we need to revisit each jurisdiction's responsibility for affordable housing. Metro's primary responsibility is to ensure an adequate land supply to accommodate housing demand. The Recommended Alternative would accomplish

Figure 5 Region 2040 - Comparison of Alternatives - Summary

	1990	Base Case	Concept A	Concept B	Concept C	Recommended Alternative
Demography						
Population	1,032,471	1,917,284	1,943,895	1,904,799	1,678,720	1,862,182
Households	410,853	827,843	839,333	822,452	724,836	804,051
Jobs	723,982	1,284,210	1,305,193	1,293,427	1,169,913	1,257,365
Single-Family/Multi-Family	70/30	70/30	74/26	60/40	69/31	65/32
Location of Growth						
% of growth in existing Metro UGB	—	83%	71%	100%	63%	87%
% of growth accommodated by redevelopment	—	0%	6%	18%	8%	19%
EFU conversion	—	63,900	17,200	0	11,400	3,545
% of employment on Industrial land	32%	43%	53%	33%	54%	25%
Transportation						
Vehicle Miles Traveled per Capita	12.40	13.04	12.48	10.86	11.92	11.76
Mode Split (Auto/Transit/Walk-Bike)	92/3/5	92/3/5	91/4/5	88/6/6	89/5/6	88/6/6
Congested Road Miles	151	506	682	643	404	454
Transit Riders	136,800	338,323*	372,400	527,800	437,200	570,000
Average PM Speed (mph)	30	28	24	24	27	26
Transit Service Hours	4,983	9,600	12,300	13,200	12,600	12,000
Air Quality						
CO Winter (Kg/day)	835,115	614,451	613,537	579,579	569,091	574,749
CO Summer	574,708	528,601	525,133	496,017	487,188	491,995
HC Summer	177,857	70,700	69,810	66,375	65,745	66,391
NOx Summer	80,452	94,024	90,987	83,817	86,988	86,230
Water						
Drinking Water Costs	—	—	Moderate	Low	Moderate	Lower
Wastewater Costs	—	—	Moderate	Moderate	High	Moderate
Stormwater Costs	—	—	Moderate	Moderate	Moderate	Moderate

** The Base Case did not have parking factors and pedestrian factors modeled consistent with the other growth concepts.*

this by moderate expansions of the urban growth boundary, higher densities, and some redevelopment.

In our discussions with affordable housing providers and advocates, they indicated that unless specific policies address the issue, little progress is likely. Policies and incentives to the private sector in particular, but also to non-profit agencies, to encourage affordable housing would be needed.

Social stability

For the earlier growth concepts we asked law enforcement, fire fighting and emergency medical response officials which concept might be most easily served. Their answers considered response times and design elements that foster a strong sense of community. Applying those criteria to the Recommended Alternative, we conclude that it would likely have response times better than Concept A, because the total urban land area is less. Additionally, the Recommended Alternative is similar in response times to Concepts B or C and much better than the Base Case. The Recommended Alternative is likely to do as well or better than the concepts previously analyzed when considering crime and safety issues.

Water facilities

In analyzing the growth concepts, sewer and water professionals of the region considered a myriad of criteria. They concluded that the potential cost differences between concepts for stormwater were too small to predict differences and a similar conclusion with regard to stormwater costs and the Recommended Alternative can be reached. However, service providers did find differences in water and sanitary sewer costs. Consistent with their findings, it seems likely that the Recommended Alternative would have slightly higher costs than Concept B, but lower than A or C for water and sanitary sewer services.

A regional water supply study is currently being completed by the water providers of the region and Metro. This analysis is using the Region 2040 growth assumptions and data to evaluate alternative approaches and reach conclusions about the most effective solutions to address water supply issues in the region. These conclusions should prove useful in preparing the Regional Framework Plan.

Summary

We have studied, analyzed, modeled, talked, changed, amended, defined and redefined. It is now time for a regional decision on how we want this area to grow over the next 50 years.

The Recommended Alternative is intended as a focal point of discussion as to how the citizens of this region believe we should best meet the challenges of the future. It attempts to blend technical analysis and the concerns heard so far from the public. It balances the concerns about expansion of the urban growth boundary with concerns about higher densities and providing housing choice. It provides mobility and mode choice by planning for more light rail and bus service, while considering the cost effectiveness of such services. It models expansions of the road and highway network, with improvements linked to serving critical land uses.

The Recommended Alternative will be scrutinized by the public, interested parties, Metro advisory committees and the Metro Council. Changes to the Recommended Alternative will undoubtably be made prior to adoption. The Metro Council, once satisfied with the revisions they direct, will adopt a map and text that will be incorporated into the Regional Urban Growth Goals and Objectives (RUGGO). The Recommended Alternative through this process will be distilled into basic principles and a map and become the formally adopted Region 2040 Growth Concept. The directions set by this decision will become the foundation for the Charter mandated Regional Framework Plan.

DRAFT

BEFORE THE METRO COUNCIL

AN ORDINANCE AMENDING THE REGIONAL URBAN GROWTH GOALS AND OBJECTIVES (RUGGO) ORDINANCE TO REFLECT THE 1992 METRO CHARTER AND INCLUDE PREFERRED 2040 URBAN FORM	)))))))	ORDINANCE NO. 94-2040 Introduced by Rena Cusma Executive Officer

WHEREAS, The Regional Urban Growth Goals and Objectives (RUGGO) in Metro Ordinance No. 91-418B were adopted September 21, 1991 as Metro's regional goals and objectives under ORS 268.380; and

WHEREAS, The Metro Council adopted Ordinance No. 93-499 to substitute Metro Policy Advisory Committee for the Regional Policy Advisory Committee as the regional partner advisory committee in the Regional Urban Growth Goals and Objectives; and

WHEREAS, The RUGGO have not been amended to reflect the Future Vision and the Regional Framework Plan required by the 1992 Metro Charter; and

WHEREAS, The Metro Council established in Resolution No. 94-1930B that the preferred configuration of Metro's urban form in the year 2040 would be adopted both as Metro policy and as Regional Urban Growth Goals and Objectives provisions; and

WHEREAS, ORS 197.015(1) was amended in 1993 to include the Regional Urban Growth Goals and Objectives in the definition of "acknowledgment" for compliance with the Land Conservation and Development Commission statewide goals; and

WHEREAS, ORS 197.251 now allows Metro to seek the Land Conservation and Development Commission acknowledgment of the Regional Urban Growth Goals and Objectives compliance with the statewide land use goals; now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

Section 1. The Regional Urban Growth Goals and Objectives are amended to read as in Exhibit "A" attached.

///

///

Section 2. The Regional Urban Growth Goals and Objectives, as amended, shall be submitted to Oregon's Land Conservation and Development Commission for their acknowledgment of compliance with their statewide land use goals.

Adopted by the Metro Council this _____ day of _____, 1994.

_____
Judy Wyers, Presiding Officer

ATTEST:

_____
Clerk of the Court

KLA
1184B

M E M O R A N D U M

METRO

Date: September 14, 1994

To: Metro Council
Metro Policy Advisory Committee
Joint Policy Advisory Committee on Transportation
Future Vision Commission

From: John Fregonese, Senior Manager, Growth Management
Planning Department

Regarding: ***RUGGO Amendments***

Attached are the Proposed Amendments to RUGGO for your consideration.

1) Goal I was modified to reflect the Charter mandated implementation responsibilities. Of note are the additions of the Regional Framework Plan to the sections dealing with functional plans. This extends the RUGGO process for developing, adopting and implementing functional plans to the Regional Framework Plan.

2) Goal II was not amended.

3) A new "Growth Concept" section was added (II.4, page 34) to describe the findings and conclusions of the Recommended Alternative.

4) The Glossary (page 45) was updated to include new language developed as part of Region 2040 and the Recommended Alternative.

It is clear in reading the entire document that we have evolved significantly since RUGGO was adopted. While most of the RUGGO objectives continue to be valid, they should be refined and strengthened in light of the Metro Charter and the Region 2040 Concept. In addition, the use of indicators and planning activities will shape the topics and direction of the Regional Framework Plan. We believe that this work should be undertaken with MPAC in the first six months of 1995, to be completed and adopted in conjunction with the Future Vision. Most of the changes required would be revisions to Goal II of the RUGGOs.

REGION 2040

Proposed Amendments to RUGGO

September 14, 1994

METRO

Text added is shaded

~~Text deleted is struck out~~

Table of Contents

Introduction

The Regional Urban Growth Goals and Objectives (RUGGO) have been developed to:

1. respond to the direction given to Metro by the legislature through ORS ch 268.380 to develop land use goals and objectives for the region which would replace those adopted by the Columbia Region Association of Governments;

2. provide a policy framework for guiding Metro's regional planning program, principally its development of functional plans and management of the region's urban growth boundary; and

3. provide a process for coordinating planning in the metropolitan area to maintain metropolitan livability.

The RUGGO's are envisioned not as a final plan for the region, but as a starting point for developing a more focused vision for the future growth and development of the Portland area. Hence, the RUGGO's are the building blocks with which the local governments, citizens, and other interests can begin to develop a shared view of the future.

This document begins with the broad outlines of that vision. There are two principal goals, the first dealing with the planning process and the second outlining substantive concerns related to urban form. The "subgoals" (in Goal II) and objectives clarify the goals. The planning activities reflect priority actions that need to be taken at a later date to refine and clarify the goals and objectives further.

Metro's regional goals and objectives required by ORS 268.380(1) are in RUGGO Goals I and II and Objectives 1-18 and the Growth Concept only. RUGGO planning activities contain implementation ideas for future study in various stages of development that may or may not lead to RUGGO amendments, new functional plans or functional plan amendments. Functional plans and functional plan amendments shall be consistent with Metro's regional goals and objectives and the Growth Concept, not RUGGO planning activities.

Background Statement

Planning for and managing the effects of urban growth in this metropolitan region involves 24 cities, three counties, and more than 130 special service districts and school districts, including Metro. In addition, the State of Oregon, Tri-Met, the Port of Portland, and the Boundary Commission all make decisions which affect and respond to regional urban growth. Each of these jurisdictions and agencies has specific duties and powers which apply directly to the tasks of urban growth management.

However, the issues of metropolitan growth are complex and inter-related. Consequently, the planning and growth management activities of many jurisdictions are both affected by and directly affect the actions of other jurisdictions in the region. In this region, as in others throughout the country, coordination of planning and management activities is a central issue for urban growth management.

Nonetheless, few models exist for coordinating growth management efforts in a metropolitan region. Further, although the legislature charged Metro with certain coordinating responsibilities, and gave it powers to accomplish that coordination, a participatory and cooperative structure for responding to that charge has never been stated.

As urban growth in the region generates issues requiring a multi-jurisdictional response, a "blueprint" for regional planning and coordination is critically needed. Although most would agree that there is a need for coordination, there is a wide range of opinion regarding how regional planning to address issues of regional significance should occur, and under what circumstances Metro should exercise its coordination powers.

Goal I addresses this coordination issue in the region for the first time by providing the process that Metro will use to address areas and activities of metropolitan significance. The process is intended to be responsive to the challenges of urban growth while respecting the powers and responsibilities of a wide range of interests, jurisdictions, and agencies.

Goal II recognizes that this region is changing as growth occurs, and that change is challenging our assumptions about how urban growth will affect quality of life. For example:

overall, the number of vehicle miles travelled in the region has been increasing at a rate far in excess of the rate of population and employment growth;

the greatest growth in traffic and movement is within suburban areas, rather than between suburban areas and the central downtown district;

in the year 2010 Metro projects that 70% of all "trips" made daily in the region will occur within suburban areas;

currently transit moves about 3% of the travellers in the region on an average workday;

to this point the region has accommodated most forecasted growth on vacant land within the urban growth boundary, with redevelopment expected to accommodate very little of this growth;

single family residential construction is occurring at less than maximum planned density;

rural residential development in rural exception areas is occurring in a manner and at a rate that may result in forcing the expansion of the urban growth boundary on important agricultural and forest resource lands in the future;

a recent study of urban infrastructure needs in the state has found that only about half of the funding needed in the future to build needed facilities can be identified.

Add to this list growing citizen concern about rising housing costs, vanishing open space, and increasing frustration with traffic congestion, and the issues associated with the growth of this region are not at all different from those encountered in other west coast metropolitan areas such as the Puget Sound region or cities in California. The lesson in these observations is that the "quilt" of 27 separate comprehensive plans together with the region's urban growth boundary is not enough to effectively deal with the dynamics of regional growth and maintain quality of life.

The challenge is clear: if the Portland metropolitan area is going to be different than other places, and if it is to preserve its vaunted quality of life as an additional 485,000 people move into the urban area in the next 20 years, then a cooperative and participatory effort to address the issues of growth must begin now. Further, that effort needs to deal with the issues accompanying growth -- increasing traffic congestion, vanishing open space, speculative pressure on rural farm lands, rising housing costs, diminishing environmental quality -- in a common framework. Ignoring vital links between these issues will limit the scope and effectiveness of our approach to managing urban growth.

Goal II provides that broad framework needed to address the issues accompanying urban growth.

Planning for a Vision of Growth in the Portland Metropolitan Area

As the metropolitan area changes, the importance of coordinated and balanced planning programs to protect the environment and guide development becomes increasingly evident.

By encouraging efficient placement of jobs and housing near each other, along with supportive commercial and recreational uses, a more efficient development pattern will result.

An important step toward achieving this planned pattern of regional growth is the integration of land uses with transportation planning, including mass transit, which will link together mixed use urban centers of higher density residential and commercial development.

The region must strive to protect and enhance its natural environment and significant natural resources. This can best be achieved by integrating the important aspects of the natural environment into a regional system of natural areas, open space and trails for wildlife and people. Special attention should be given to the development of infrastructure and public services in a manner that complements the natural environment.

A clear distinction must be created between the urbanizing areas and rural lands. Emphasis should be placed upon the balance between new development and infill within the region's urban growth boundary and the need for future urban growth boundary expansion. This regional vision recognizes the pivotal role played by a healthy and active central city, while at the same time providing for the growth of other communities of the region.

Finally, the regional planning program must be one that is based on a cooperative process that involves the residents of the metropolitan area, as well as the many public and private interests. Particular attention must be given to the need for effective partnerships with local governments because they will have a major responsibility in implementing the vision. It is important to consider the diversity of the region's communities when integrating local comprehensive plans into the pattern of regional growth.

GOAL I: REGIONAL PLANNING PROCESS

Regional planning in the metropolitan area shall:

I.i Fully implement the regional planning functions of the 1992 Metro Charter;

I.ii identify and designate other areas and activities of metropolitan ~~significance~~ concern through a participatory process involving the Metro Policy Advisory Committee, cities, counties, special districts, school districts, and state and regional agencies such as Tri-Met and the Port of Portland;

I.iii —occur in a cooperative manner in order to avoid creating duplicative processes, standards, and/or governmental roles.

These goals and objectives shall only apply to acknowledged comprehensive plans of cities and counties when implemented through the regional framework plan, functional plans, or the acknowledged urban growth boundary plan.

Objective 1. Citizen Participation

Metro shall develop and implement an ongoing program for citizen participation in all aspects of the regional planning program. Such a program shall be coordinated with local programs for supporting citizen involvement in planning processes, and shall not duplicate those programs.

1.1. **Metro Committee for Citizen Involvement (Metro CCI)** ~~**Regional Citizen Involvement Coordinating Committee.**~~ Metro shall establish a Metro Committee for Citizen Involvement ~~Regional Citizen Involvement Coordinating Committee~~ to assist with the development, implementation and evaluation of its citizen involvement program and to advise the Metro ~~Regional~~ Policy Advisory Committee regarding ways to best involve citizens in regional planning activities.

1.2. **Notification.** Metro shall develop programs for public notification, especially for (but not limited to) proposed legislative actions, that ensure a high level of awareness of potential consequences as well as opportunities for involvement on the part of affected citizens, both inside and outside of its district boundaries.

Objective 2. Metro Policy Advisory Committee

The 1992 Metro Charter has established the Metro Policy Advisory Committee to:

2.i——assist with the development and review of Metro's regional planning activities pertaining to land use and growth management, including review and implementation of these goals and objectives, development, and implementation of the regional framework plan, present and prospective functional planning, and management and review of the region's urban growth boundary;

2.ii. serve as a forum for identifying and discussing areas and activities of metropolitan or subregional significance; and

2.iii. provide an avenue for involving all cities and counties and other interests in the development and implementation of growth management strategies.

2.1. **Metro Policy Advisory Committee Composition.** The initial Metro Policy Advisory Committee (MPAC) shall be chosen according to the Metro Charter and, thereafter, according to any changes approved by majorities of MPAC and the Metro Council. The composition of the Committee shall reflect the partnership that must exist among implementing jurisdictions in order to effectively address areas and activities of metropolitan

significance. The voting membership shall include elected and appointed officials and citizens of Metro, cities, counties and states consistent with section 27 of the 1992 Metro Charter.

2.2. **Advisory Committees.** The Metro Council, or the Metro Policy Advisory Committee consistent with the MPAC by-laws, shall appoint technical advisory committees as the Council or the Metro Policy Advisory Committee determine a need for such bodies.

2.3. **Joint Policy Advisory Committee on Transportation (JPACT).** JPACT with the Metro Council shall continue to perform the functions of the designated Metropolitan Planning Organization as required by federal transportation planning regulations. JPACT and the Metro Policy Advisory Committee shall develop a coordinated process, to be approved by the Metro Council, to assure that regional land use and transportation planning remains consistent with these goals and objectives and with each other.

Objective 3. Applicability of Regional Urban Growth Goals and Objectives

These Regional Urban Growth Goals and Objectives have been developed pursuant to ORS 268.380(1). Therefore, they comprise neither a comprehensive plan under ORS 197.015(5) nor a functional plan under ORS 268.390(2). The regional framework plan and all functional plans prepared by Metro shall be consistent with these goals and objectives. Metro's management of the Urban Growth Boundary shall be guided by standards and procedures which must be consistent with these goals and objectives. These goals and objectives shall not apply directly to site-specific land use actions, including amendments of the urban growth boundary.

These Regional Urban Growth Goals and Objectives shall apply to adopted and acknowledged comprehensive land use plans as follows:

~~3.i. A regional functional plan, itself consistent with these goals and objectives,~~

3.i. Components of the regional framework plan that are adopted as functional plans, or other functional plans, shall be consistent with these goals and objectives, and they

may recommend or require amendments to adopted and acknowledged comprehensive land use plans; or

3.ii. The management and periodic review of Metro's acknowledged Urban Growth Boundary Plan, itself consistent with these goals and objectives, may require changes in adopted and acknowledged land use plans; or

3.iii. The Metro Policy Advisory Committee may identify and propose issues of regional concern, related to or derived from these goals and objectives, for consideration by cities and counties at the time of periodic review of their adopted and acknowledged comprehensive plans.

3.1. **Urban Growth Boundary Plan.** The Urban Growth Boundary Plan has two components:

3.1.1. The acknowledged urban growth boundary line; and

3.1.2. Acknowledged procedures and standards for amending the urban growth boundary line. Metro's Urban Growth Boundary is not a regional comprehensive plan but a provision of the comprehensive plans of the local governments within its boundaries. The location of the urban growth boundary line shall be in compliance with applicable statewide planning goals and consistent with these goals and objectives. Amendments to the urban growth boundary line shall demonstrate consistency only with the acknowledged procedures and standards.

3.2. **Functional Plans.** ~~Regional~~ Metro functional plans containing recommendations for comprehensive planning by cities and counties may or may not involve land use decisions. Functional plans are not required by the enabling statute to include findings of consistency with statewide land use planning goals. If provisions in a functional plan, or actions implementing a functional plan require changes in an adopted and acknowledged comprehensive land use plan, then that action may be a land use action required to be consistent with the statewide planning goals.

3.3 **Regional Framework Plan.** The regional framework plan adopted by Metro shall be consistent with these goals and objectives. Provisions of the regional framework plan that establish performance standards, and that may require changes in local comprehensive plans shall be adopted as functional plans, and shall meet all requirements for functional plans contained in these goals and objectives.

~~3.4~~ 3. **Periodic Review of Comprehensive Land Use Plans.** At the time of periodic review for comprehensive land use plans in the region the Metro Policy Advisory Committee:

3.3.1. Shall assist Metro with the identification of regional framework plan elements, functional plan provisions or changes in functional plans adopted since the last periodic review for inclusion in periodic review notices as changes in law; and

3.3.2. May provide comments during the periodic review of adopted and acknowledged comprehensive plans on issues of regional concern.

3.~~5.~~4. **Periodic Review of the Regional Urban Growth Goals and Objectives.** ~~If statute changes are made to ORS 197 to allow acknowledgement of these goals and objectives as the means for meeting the statutory requirement that these goals and objectives be consistent with statewide planning goals, then this section will apply.~~ The Metro Policy Advisory Committee shall consider the periodic review notice for these goals and objectives and recommend a periodic review process for adoption by the Metro Council.

Objective 4. Implementation Roles

Regional planning and the implementation of these Regional Urban Growth Goals and Objectives shall recognize the inter-relationships between cities, counties, special districts, Metro, regional agencies, and the State, and their unique capabilities and roles.

4.1. **Metro Role.** Metro shall:

4.1.1. Identify and designate areas and activities of metropolitan significance;

4.1.2. Provide staff and technical resources to support the activities of the ~~Regional~~ Metro Policy Advisory Committee;

4.1.3. Serve as a technical resource for cities, counties, and other jurisdictions and agencies;

4.1.4. Facilitate a broad-based regional discussion to identify appropriate strategies for responding to those issues of metropolitan significance; and

4.1.5. Adopt functional plans necessary and appropriate for the implementation of these regional urban growth goals and objectives, and the regional framework plan;

4.1.6. Coordinate the efforts of cities, counties, special districts, and the state to implement adopted strategies.

4.2. **Role of Cities.**

4.2.1. Adopt and amend comprehensive plans to conform to and functional plans adopted by Metro;

4.2.2. Identify potential areas and activities of metropolitan significance;

4.2.3. Cooperatively develop strategies for responding to designated areas and activities of metropolitan significance;

4.2.4. Participate in the review and refinement of these goals and objectives.

4.3. **Role of Counties.**

4.3.1. Adopt and amend comprehensive plans to conform functional plans adopted by Metro;

4.3.2. Identify potential areas and activities of metropolitan significance;

4.3.3. Cooperatively develop strategies for responding to designated areas and activities of metropolitan significance;

4.3.4. Participate in the review and refinement of these goals and objectives.

4.4. **Role of Special Service Districts.** Assist Metro with the identification of areas and activities of metropolitan significance and the development of strategies to address them, and participate in the review and refinement of these goals and objectives.

4.5. **Role of the State of Oregon.**

4.5.1. Advise Metro regarding the identification of areas and activities of metropolitan significance;

4.5.2. Cooperatively develop strategies for responding to designated areas and activities of metropolitan significance;

4.5.3. Modify state plans, regulations, and activities to insure coordination with the regional framework plan and functional plans adopted by Metro, and direct state programs toward implementation of these goals and objectives and the regional framework plan;

4.5.4. Participate in the review and refinement of these goals and objectives.

~~4.5.1. Advise Metro regarding the identification of areas and activities of metropolitan significance and the development of strategies to address them, and participate in the review and refinement of these goals and objectives.~~

Objective 5. Functional Planning Process

Functional plans are limited purpose plans, consistent with these goals and objectives, which address designated areas and activities of metropolitan ~~significance~~ concern. This shall

include all sections of the regional framework plan that establish performance standards for local plans.

5.1. **Existing Functional Plans.** Metro shall continue to develop, amend, and implement, with the assistance of cities, counties, special districts, and the state, statutorily required functional plans for air, water, and transportation, as directed by ORS 268.390(1), and for solid waste as mandated by ORS ch 459.

5.2. **New Functional Plans.** New functional plans shall be proposed from one of two sources:

5.2.1. The Metro Policy Advisory Committee may recommend that the Metro Council designate an area or activity of metropolitan significance for which a functional plan should be prepared; or

5.2.2. The Metro Council may propose the preparation of a functional plan to designate an area or activity of metropolitan significance, and refer that proposal to the Metro Policy Advisory Committee.

The matters required by the Charter to be addressed in the regional framework plan shall constitute sufficient factual reasons for the development of a functional plan under ORS 268.390.

Upon the Metro Council adopting factual reasons for the development of a new functional plan, the Metro Policy Advisory Committee shall participate in the preparation of the plan, consistent with these goals and objectives and the reasons cited by the Metro Council. After preparation of the plan and seeking broad public and local government consensus, using existing citizen involvement processes established by cities, counties, and Metro, the Metro Policy Advisory Committee shall review the plan and make a recommendation to the Metro Council. The Metro Council may act to resolve conflicts or problems impeding the development of a new functional plan and may complete the plan the Metro Policy Advisory Committee is unable to complete its review in a timely manner.

The Metro Council shall hold a public hearing on the proposed plan and afterwards shall:

5.2.A. Adopt the proposed functional plan; or

5.2.B. Refer the proposed functional plan to the Metro Policy Advisory Committee in order to consider amendments to the proposed plan prior to adoption; or

5.2.C. Amend and adopt the proposed functional plan; or

5.2.D. Reject the proposed functional plan.

The proposed functional plan shall be adopted by ordinance, and shall include findings of consistency with these goals and objectives.

5.3. **Functional Plan Implementation and Conflict Resolution.** Adopted functional plans shall be regionally coordinated policies, facilities, and/or approaches to addressing a designated area or activity of metropolitan significance, to be considered by cities and counties for incorporation in their comprehensive land use plans. If a city or county determines that a functional plan recommendation should not or cannot be incorporated into its comprehensive plan, then Metro shall review any apparent inconsistencies by the following process:

5.3.1. Metro and affected local governments shall notify each other of apparent or potential comprehensive plan inconsistencies.

5.3.2. After Metro staff review, the Metro Policy Advisory Committee shall consult the affected jurisdictions and attempt to resolve any apparent or potential inconsistencies.

5.3.3. The Metro Policy Advisory Committee shall conduct a public hearing and make a report to the Metro Council regarding instances and reasons why a city or county has not adopted changes consistent with recommendations in a regional functional plan.

5.3.4. The Metro Council shall review the Metro Policy Advisory Committee report and hold a public hearing on any unresolved issues. The Council may decide to:

5.3.4.a. Amend the adopted regional functional plan; or

5.3.4.b. Initiate proceedings to require a comprehensive plan change; or

5.3.4.c. Find there is no inconsistency between the comprehensive plan(s) and the functional plan.

Objective 6. Future Vision and the Future Vision Commission

By Charter, approved by the voters in 1992, Metro must adopt a Future Vision for the metropolitan area. The Future Vision is:

> "a conceptual statement that indicates population levels and settlement patterns that the region can accommodate within the carrying capacity of the land, water, and air resources of the region, and its educational and economic resources, and that achieves a desired quality of life. The Future Vision is a long-term, visionary outlook for at least a 50-year period...The matters addressed by the Future Vision include but are not limited to: (1) use, restoration, and preservation of regional land and natural resources for the benefit of present and future generations, (2) how and where to accommodate the population growth for the region while maintaining a desired quality of life for its residents, and (3) how to develop new communities and additions to the existing urban areas in well-planned ways...The Future Vision is not a regulatory document. It is the intent of this charter that the Future Vision have no effect that would allow court or agency review of it."

The Future Vision will be prepared by a broadly representative commission, appointed by the Metro council, and will be reviewed and amended as needed, and comprehensively reviewed and, if need be, revised every 15 years.

Metro will describe the relationship of components of the Regional Framework Plan, and the Regional Framework Plan as a whole, to the Future Vision.

Objective 76. Amendments to the Regional Urban Growth Goals and Objectives

The Regional Urban Growth Goals and Objectives shall be reviewed at regular intervals or at other times determined by the Metro Council after consultation with or upon the suggestion of the Metro Policy Advisory Committee. Any review and amendment process shall involve a broad cross-section of citizen and jurisdictional interests, and shall involve the Metro Policy Advisory Committee consistent with Goal 1: Regional Planning Process. Proposals for amendments shall receive broad public and local government review prior to final Metro Council action.

76.1. **Impact of Amendments.** At the time of adoption of amendments to these goals and objectives, the Metro Council shall determine whether amendments to adopted regional framework plan, functional plans or the acknowledged regional urban growth boundary are necessary. If amendments to the above are necessary, the Metro Council shall act on amendments to applicable functional plans. The Council shall request recommendations from the Metro Policy Advisory Committee before taking action. All amendment proposals will include the date and method through which they may become effective, should they be adopted. Amendments to the acknowledged regional urban growth boundary will be considered under acknowledged urban growth boundary amendment procedures incorporated in the Metro Code.

If changes to the regional framework plan or functional plans are adopted, affected cities and counties shall be informed in writing of those changes which are advisory in nature, those which recommend changes in comprehensive land use plans, and those which require changes in comprehensive plans. This notice shall specify the effective date of particular amendment provisions.

GOAL II: URBAN FORM

The livability of the urban region should be maintained and enhanced through initiatives which:

II.i. preserve environmental quality;

II.ii. coordinate the development of jobs, housing, and public services and facilities; and

II.iii. inter-relate the benefits and consequences of growth in one part of the region with the benefits and consequences of growth in another. Urban form, therefore, describes an overall framework within which regional urban growth management can occur. Clearly stating objectives for urban form, and pursuing them comprehensively provides the focal strategy for rising to the challenges posed by the growth trends present in the region today.

II.1: NATURAL ENVIRONMENT

Preservation, use, and modification of the natural environment of the region should maintain and enhance environmental quality while striving for the wise use and preservation of a broad range of natural resources.

Objective 87. Water Resources

Planning and management of water resources should be coordinated in order to improve the quality and ensure sufficient quantity of surface water and groundwater available to the region.

87.1 **Formulate Strategy.** A long-term strategy, coordinated by the jurisdictions and agencies charged with planning and managing water resources, shall be developed to comply with state and federal requirements for drinking water, to sustain beneficial water uses, and to accommodate growth.

Planning Activities:

Planning programs for water resources management shall be evaluated to determine the ability of current efforts to accomplish the following, and recommendations for changes in these programs will be made if they are found to be inadequate:

Identify the future resource needs and carrying capacities of the region for municipal and industrial water supply, irrigation, fisheries, recreation, wildlife, environmental standards and aesthetic amenities;

Monitor water quality and quantity trends vis-a-vis beneficial use standards adopted by federal, state, regional, and local governments for specific water resources important to the region;

Evaluate the cost-effectiveness of alternative water resource management scenarios, and the use of conservation for both cost containment and resource management; and

Preserve, create, or enhance natural water features for use as elements in nonstructural approaches to managing stormwater and water quality.

Objective 98. Air Quality

Air quality shall be protected and enhanced so that as growth occurs, human health is unimpaired. Visibility of the Cascades and the Coast Range from within the region should be maintained.

98.1. Strategies for planning and managing air quality in the regional airshed shall be included in the State Implementation Plan for the Portland-Vancouver air quality maintenance area as required by the Federal Clean Air Act.

98.2. New regional strategies shall be developed to comply with Federal Clean Air Act requirements and provide capacity for future growth.

98.3. The region, working with the state, shall pursue the consolidation of the Oregon and Clark County Air Quality Management Areas.

98.4. All functional plans, when taken in the aggregate, shall be consistent with the State Implementation Plan (SIP) for air quality.

Planning Activities:

An air quality management plan should be developed for the regional airshed which:

Outlines existing and forecast air quality problems; identifies prudent and equitable market based and regulatory strategies for addressing present and probable air quality problems throughout the region; evaluates standards for visibility; and implements an air quality monitoring program to assess compliance with local, state, and federal air quality requirements.

Objective 109. Natural Areas, Parks and Wildlife Habitat

Sufficient open space in the urban region shall be acquired, or otherwise protected, and managed to provide reasonable and convenient access to sites for passive and active recreation. An open space system capable of sustaining or enhancing native wildlife and plant populations should be established.

109.1. Quantifiable targets for setting aside certain amounts and types of open space shall be identified.

109.2. Corridor Systems - The regional planning process shall be used to coordinate the development of interconnected recreational and wildlife corridors within the metropolitan region.

~~10~~9.2.1. A region-wide system of trails should be developed to link public and private open space resources within and between jurisdictions.

~~10~~9.2.2. A region-wide system of linked significant wildlife habitats should be developed.

~~10~~9.2.3. A Willamette River Greenway Plan for the region should be implemented by the turn of the century.

Planning Activities:

1. Inventory existing open space and open space opportunities to determine areas within the region where open space deficiencies exist now, or will in the future, given adopted land use plans and growth trends.

2. Assess current and future active recreational land needs. Target acreage should be developed for neighborhood, community, and regional parks, as well as for other types of open space in order to meet local needs while sharing responsibility for meeting metropolitan open space demands.

3. Develop multi-jurisdictional tools for planning and financing the protection and maintenance of open space resources. Particular attention will be paid to using the land use planning and permitting process and to the possible development of a land-banking program.

4. Conduct a detailed biological field inventory of the region to establish an accurate baseline of native wildlife and plant populations. Target population goals for native species will be established through a public process which will include an analysis of amounts of habitat necessary to sustain native populations at target levels.

Objective ~~11~~10. Protection of Agriculture and Forest Resource Lands

Agricultural and forest resource land outside the urban growth boundary shall be protected from urbanization, and accounted for in regional economic and development plans.

~~11~~10.1. **Rural Resource Lands.** Rural resource lands outside the urban growth boundary which have significant resource value should actively be protected from urbanization.

~~11~~10.2. **Urban Expansion.** Expansion of the urban growth boundary shall occur in urban reserves, established consistent with Objective 15.3.

Planning Activities:

A regional economic opportunities analysis shall include consideration of the agricultural and forest products economy associated with lands adjacent to or near the urban area.

II.2. BUILT ENVIRONMENT

Development in the region should occur in a coordinated and balanced fashion as evidenced by:

II.2.i. a regional "fair-share" approach to meeting the housing needs of the urban population;

II.2.ii. the provision of infrastructure and critical public services concurrent with the pace of urban growth;

II.2.iii. the integration of land use planning and economic development programs;

II.2.iv. the coordination of public investment with local comprehensive and regional functional plans;

II.2.v. the continued evolution of regional economic opportunity; and

II.2.vi. the creation of a balanced transportation system, less dependent on the private automobile, supported by both the use of emerging technology and the collocation of jobs, housing, commercial activity, parks and open space.

Objective ~~12~~11. Housing

There shall be a diverse range of housing types available inside the urban growth boundary (UGB) for rent or purchase at costs in balance with the range of household incomes in the region. Low and moderate income housing needs should be addressed throughout the region. Housing densities should be supportive of adopted public policy for the development of the regional transportation system and designated mixed use urban centers.

Planning Activities:

The Metropolitan Housing Rule (OAR 660, Division 7) has effectively resulted in the preparation of local comprehensive plans in the urban region that:

provide for the sharing of regional housing supply responsibilities by ensuring the presence of single and multiple family zoning in every jurisdiction; and

plan for local residential housing densities that support net residential housing density

assumptions underlying the regional urban growth boundary.

However, it is now time to develop a new regional housing policy that directly addresses the requirements of Statewide Planning Goal 10, in particular:

1. Strategies should be developed to preserve the region's supply of special needs and existing low and moderate income housing.

2. **Diverse Housing Needs.** the diverse housing needs of the present and projected population of the region shall be correlated with the available and prospective housing supply. Upon identification of unmet housing needs, a region wide strategy shall be developed which takes into account subregional opportunities and constraints, and the relationship of market dynamics to the management of the overall supply of housing. In addition, that strategy shall address the "fair-share" distribution of housing responsibilities among the jurisdictions of the region, including the provision of supporting social services.

3. **Housing Affordability.** A housing needs analysis shall be carried out to assess the adequacy of the supply of housing for rent and/or sale at prices for low and moderate income households. If, following that needs analysis, certain income groups in the region are found to not have affordable housing available to them, strategies shall be developed to focus land use policy and public and private investment towards meeting that need.

4. The uses of public policy and investment to encourage the development of housing in locations near employment that is affordable to employees in those enterprises shall be evaluated and, where feasible, implemented.

Objective ~~13~~12. Public Services and Facilities

Public services and facilities including but not limited to public safety, water and sewerage systems, parks, libraries, the solid waste management system, stormwater management facilities, and transportation should be planned and developed to:

~~13~~12.i. minimize cost;

~~13~~12.ii. maximize service efficiencies and coordination;

~~13~~12.iii. result in net improvements in environmental quality and the conservation of natural resources;

~~13~~12.iv. keep pace with growth while preventing any loss of existing service levels and

achieving planned service levels;

~~13~~12.v. use energy efficiently; and

~~13~~12.vi. shape and direct growth to meet local and regional objectives.

~~13~~12.1. **Planning Area.** The long-term geographical planning area for the provision of urban services shall be the area described by the adopted and acknowledged urban growth boundary and the designated urban reserves.

~~13~~12.2. **Forecast Need.** Public service and facility development shall be planned to accommodate the rate of urban growth forecast in the adopted regional growth forecast, including anticipated expansions into urban reserve areas.

~~13~~12.3. **Timing.** The region should seek the provision of public facilities and services at the time of new urban growth.

Planning Activities:

Inventory current and projected public facilities and services needs throughout the region, as described in adopted and acknowledged public facilities plans. Identify opportunities for and barriers to achieving concurrency in the region. Develop financial tools and techniques to enable cities, counties, school districts, special districts, Metro and the State to secure the funds necessary to achieve concurrency. Develop tools and strategies for better linking planning for school, library, and park facilities to the land use planning process.

Objective ~~14~~13. Transportation

A regional transportation system shall be developed which:

~~14~~13.i. reduces reliance on a single mode of transportation through development of a balanced transportation system which employs highways, transit, bicycle and pedestrian improvements, and system and demand management.

~~14~~13.ii. provides adequate levels of mobility consistent with local comprehensive plans and state and regional policies and plans;

~~14~~13.iii. encourages energy efficiency;

~~14~~13.iv. recognizes financial constraints; and

~~1413~~.v. minimizes the environmental impacts of system development, operations, and maintenance.

~~1413~~.1. **System Priorities.** In developing new regional transportation system infrastructure, the highest priority should be meeting the mobility needs of mixed use urban centers, when designated. Such needs, associated with ensuring access to jobs, housing, and shopping within and among those centers, should be assessed and met through a combination of intensifying land uses and increasing transportation system capacity so as to minimize negative impacts on environmental quality, urban form, and urban design.

~~1413~~.2. **Environmental Considerations.** Planning for the regional transportation system should seek to:

~~1413~~.2.1. reduce the region's transportation-related energy consumption through increased use of transit, carpools, vanpools, bicycles and walking;

~~1413~~.2.2. maintain the region's air quality (see Objective 8: Air Quality); and

~~1413~~.2.3. reduce negative impacts on parks, public open space, wetlands, and negative effects on communities and neighborhoods arising from noise, visual impacts, and physical segmentation.

~~1413~~.3. **Transportation Balance.** Although the predominant form of transportation is the private automobile, planning for and development of the regional transportation system should seek to:

~~1413~~.3.1. reduce automobile dependency, especially the use of single-occupancy vehicles;

~~1413~~.3.2. increase the use of transit through both expanding transit service and addressing a broad range of requirements for making transit competitive with the private automobile; and

~~1413~~.3.3. encourage bicycle and pedestrian movement through the location and design of land uses.

Planning Activities:

1. Build on existing mechanisms for coordinating transportation planning in the region by:

   identifying the role for local transportation system improvements and relationship

between local, regional, and state transportation system improvements in regional transportation plans;

clarifying institutional roles, especially for plan implementation, in local, regional, and state transportation plans; and

including plans and policies for the inter-regional movement of people and goods by rail, ship, barge, and air in regional transportation plans.

2. Structural barriers to mobility for transportation disadvantaged populations should be assessed in the current and planned regional transportation system and addressed through a comprehensive program of transportation and non-transportation system based actions.

3. The needs for movement of goods via trucks, rail, and barge should be assessed and addressed through a coordinated program of transportation system improvements and actions to affect the location of trip generating activities.

4. Transportation-related guidelines and standards for designating mixed use urban centers shall be developed.

Objective ~~15~~14. Economic Opportunity

Public policy should encourage the development of a diverse and sufficient supply of jobs, especially family wage jobs, in appropriate locations throughout the region. Expansions of the urban growth boundary for industrial or commercial purposes shall occur in locations consistent with these regional urban growth goals and objectives.

Planning Activities:

1. Regional and subregional economic opportunities analyses, as described in OAR 660 Division 9, should be conducted to:

assess the adequacy and, if necessary, propose modifications to the supply of vacant and redevelopable land inventories designated for a broad range of employment activities;

identify regional and subregional target industries. Economic subregions will be developed which reflect a functional relationship between locational characteristics and the locational requirements of target industries. Enterprises identified for recruitment, retention, and expansion should be basic industries that broaden and diversify the region's

economic base while providing jobs that pay at family wage levels or better; and

link job development efforts with an active and comprehensive program of training and education to improve the overall quality of the region's labor force. In particular, new strategies to provide labor training and education should focus on the needs of economically disadvantaged, minority, and elderly populations.

2. An assessment should be made of the potential for redevelopment and/or intensification of use of existing commercial and industrial land resources in the region.

II.3: GROWTH MANAGEMENT

The management of the urban land supply shall occur in a manner which encourages:

II.3.i. the evolution of an efficient urban growth form which reduces sprawl;

II.3.ii. a clear distinction between urban and rural lands; and

II.3.iii. recognition of the inter-relationship between development of vacant land and redevelopment objectives in all parts of the urban region.

Objective 1615. Urban/rural transition

There should be a clear transition between urban and rural land that makes best use of natural and built landscape features and which recognizes the likely long-term prospects for regional urban growth.

1615.1. **Boundary Features.** The Metro urban growth boundary should be located using natural and built features, including roads, drainage divides, floodplains, powerlines, major topographic features, and historic patterns of land use or settlement.

1615.2. **Sense of Place.** Historic, cultural, topographic, and biological features of the regional landscape which contribute significantly to this region's identity and "sense of place", shall be identified. Management of the total urban land supply should occur in a manner that supports the preservation of those features, when designated, as growth occurs.

1615.3. **Urban Reserves.** Thirty-year "urban reserves", adopted for purposes of coordinating planning and estimating areas for future urban expansion, should be identified consistent with these goals and objectives, and reviewed by Metro every 15 years.

1615.3.1. Establishment of urban reserves will take into account:

1615.3.1.a. The efficiency with which the proposed reserve can be provided with urban services in the future;

1615.3.1.b. The unique land needs of specific urban activities assessed from a regional perspective;

1615.3.1.c. The provision of green spaces between communities;

~~1615~~.3.1.d. The efficiencies with which the proposed reserve can be urbanized;

~~1615~~.3.1.e. The proximity of jobs and housing to each other;

~~1615~~.3.1.f. The balance of growth opportunities throughout the region so that the costs and benefits can be shared;

~~1615~~.3.1.g. The impact on the regional transportation system; and

~~1615~~.3.1.h. The protection of farm and forest resource lands from urbanization. Inclusion of land in an urban reserve shall be preceded by consideration of all of the above factors.

~~1615~~.3.2 In addressing ~~1615~~.3.1(h), the following hierarchy should be used for identifying priority sites for urban reserves:

~~1615~~.3.2.a. First, propose such reserves on rural lands excepted from Statewide Planning goals 3 and 4 in adopted and acknowledged county comprehensive plans. This recognizes that small amounts of rural resource land adjacent to or surrounded by those "exception lands" may be necessary for inclusion in the proposal to improve the efficiency of the future urban growth boundary amendment.

~~1615~~.3.2.b. Second, consider secondary forest resource lands, or equivalent, as defined by the state.

~~1615~~.3.2.c. Third, consider secondary agricultural resource lands, or equivalent, as defined by the state.

~~1615~~.3.2.d. Fourth, consider primary forest resource lands, or equivalent, as defined by the state.

~~1615~~.3.2.e. Finally, when all other options are exhausted, consider primary agricultural lands, or equivalent, as defined by the state.

~~1615~~.3.3. Expansion of the urban growth boundary shall occur consistent with Objectives 1~~7~~6 and 1~~8~~7. Where urban land is adjacent to rural lands outside of an urban reserve, Metro will work with affected cities and counties to ensure that urban uses do not significantly affect the use or condition of the rural land. Where urban land is adjacent to lands within an urban reserve that may someday be included within the urban growth boundary, Metro will work with affected cities and counties to ensure that rural development does not create obstacles to efficient urbanization in the future.

Planning Activities:

1. Identification of urban reserves adjacent to the urban growth boundary shall be accompanied by the development of a generalized future land use plan. The planning effort will primarily be concerned with identifying and protecting future open space resources and the development of short-term strategies needed to preserve future urbanization potential. Ultimate providers of urban services within those areas should be designated and charged with incorporating the reserve area(s) in their public facility plans in conjunction with the next periodic review. Changes in the location of the urban growth boundary should occur so as to ensure that plans exist for key public facilities and services.

2. The prospect of creating transportation and other links between the urban economy within the Metro Urban Growth Boundary and other urban areas in the state should be investigated as a means for better utilizing Oregon's urban land and human resources.

3. The use of greenbelts for creating a clear distinction between urban and rural lands, and for creating linkages between communities, should be explored.

4. The region, working with the state and other urban communities in the northern Willamette Valley, should evaluate the opportunities for accommodating forecasted urban growth in urban areas outside of and not adjacent to the present urban growth boundary.

Objective ~~17~~16. Developed Urban Land

Opportunities for and obstacles to the continued development and redevelopment of existing urban land shall be identified and actively addressed. A combination of regulations and incentives shall be employed to ensure that the prospect of living, working, and doing business in those locations remains attractive to a wide range of households and employers.

~~17~~16.1. **Redevelopment & Infill.** The potential for redevelopment and infill on existing urban land will be included as an element when calculating the buildable land supply in the region, where it can be demonstrated that the infill and redevelopment can be reasonably expected to occur during the next 20 years. When Metro examines whether additional urban land is needed within the urban growth boundary, it shall assess redevelopment and infill potential in the region.

Metro will work with jurisdictions in the region to determine the extent to which redevelopment and infill can be relied on to meet the identified need for additional urban

land. After this analysis and review, Metro will initiate an amendment of the urban growth boundary to meet that portion of the identified need for land not met through commitments for redevelopment and infill.

~~17~~16.2. **Portland Central City.** The Central City area of Portland is an area of regional and state significance for commercial, economic, cultural, tourism, government, and transportation functions. State and regional policy and public investment should continue to recognize this special significance.

~~17~~16.3. **Mixed Use Urban Centers.** The region shall evaluate and designate mixed use urban centers. A "mixed use urban center" is a mixed use node of relatively high density, supportive of non-auto based transportation modes, and supported by sufficient public facilities and services, parks, open space, and other urban amenities. Upon identification of mixed use urban centers, state, regional, and local policy and investment shall be coordinated to achieve development objectives for those places. Minimum targets for transit:highway mode split, jobs:housing balance, and minimum housing density may be associated with those public investments.
New mixed use urban centers shall be sited with respect to a system of such centers in the region, and shall not significantly affect regional goals for existing centers, the transportation system, and other public services and facilities.

Planning Activities:

1. Metro's assessment of redevelopment and infill potential in the region shall include but not be limited to:

   a. An inventory of parcels where the assessed value of improvements is less than the assessed value of the land.

   b. An analysis of the difference between comprehensive plan development densities and actual development densities for all parcels as a first step towards determining the efficiency with which urban land is being used. In this case, efficiency is a function of land development densities incorporated in local comprehensive plans.

   c. An assessment of the impacts on the cost of housing of redevelopment versus expansion of the urban growth boundary.

   d. An assessment of the impediments to redevelopment and infill posed by existing urban land uses or conditions.

2. Financial incentives to encourage redevelopment and infill consistent with adopted and

acknowledged comprehensive plans should be pursued to make redevelopment and infill attractive alternatives to raw land conversion for investors and buyers.

3. Cities and their neighborhoods should be recognized as the focal points for this region's urban diversity. Actions should be identified to reinforce the role of existing downtowns in maintaining the strength of urban communities.

4. Tools will be developed to address regional economic equity issues stemming from the fact that not all jurisdictions will serve as a site for an economic activity center. Such tools may include off-site linkage programs to meet housing or other needs or a program of fiscal tax equity.

5. Criteria shall be developed to guide the potential designation of mixed use urban centers. The development and application of such criteria will address the specific area to be included in the center, the type and amount of uses it is to eventually contain, the steps to be taken to encourage public and private investment. Existing and possible future mixed use urban centers will be evaluated as to their current functions, potentials, and need for future public and private investment. Strategies to meet the needs of the individual centers will be developed. The implications of both limiting and not limiting the location of large scale office and retail development in mixed use urban centers shall be evaluated.

Objective ~~18~~17. Urban Growth Boundary

The regional urban growth boundary, a long-term planning tool, shall separate urbanizable from rural land, be based in aggregate on the region's 20-year projected need for urban land, and be located consistent with statewide planning goals and these Regional Urban Growth Goals and Objectives. In the location, amendment, and management of the regional urban growth boundary, Metro shall seek to improve the functional value of the boundary.

~~18~~17.1. **Expansion into Urban Reserves.** Upon demonstrating a need for additional urban land, major and legislative urban growth boundary amendments shall only occur within urban reserves unless it can be demonstrated that Statewide Planning Goal 14 cannot be met for the urban region through use of urban reserve lands.

~~18~~17.2. **Urban Growth Boundary Amendment Process.** Criteria for amending the urban growth boundary shall be derived from statewide planning goals 2 and 14 and relevant portions of the Regional Urban Growth Goals and Objectives.

~~18~~17.2.1. **Major Amendments.** Proposals for major amendment of the UGB shall be made primarily through a legislative process in conjunction with the development and

adoption of regional forecasts for population and employment growth. The amendment process will be initiated by a Metro finding of need, and involve local governments, special districts, citizens, and other interests.

~~18~~17.2.2. **Locational Adjustments.** Locational adjustments of the UGB shall be brought to Metro by cities, counties, and/or property owners based on public facility plans in adopted and acknowledged comprehensive plans.

Objective ~~19~~18. Urban Design

The identity and functioning of communities in the region shall be supported through:

~~19~~18.i. the recognition and protection of critical open space features in the region;

~~19~~18.ii. public policies which encourage diversity and excellence in the design and development of settlement patterns, landscapes, and structures; and

~~19~~18.iii. ensuring that incentives and regulations guiding the development and redevelopment of the urban area promote a settlement pattern which:

~~19~~18.iii.a. is pedestrian "friendly" and reduces auto dependence;

~~19~~18.iii.b. encourages transit use;

~~19~~18.iii.c. reinforces nodal, mixed use, neighborhood oriented design;

~~19~~18.iii.d. includes concentrated, high density, mixed use urban centers developed in relation to the region's transit system; and

~~19~~18.iii.e. is responsive to needs for privacy, community, and personal safety in an urban setting.

~~19~~18.1. Pedestrian and transit supportive building patterns will be encouraged in order to minimize the need for auto trips and to create a development pattern conducive to face-to-face community interaction.

Planning Activities:

1. A regional landscape analysis shall be undertaken to inventory and analyze the relationship between the built and natural environments and to identify key open space,

topographic, natural resource, cultural, and architectural features which should be protected or provided as urban growth occurs.

2. Model guidelines and standards shall be developed which expand the range of tools available to jurisdictions for accommodating change in ways compatible with neighborhoods and communities while addressing this objective.

3. Light rail transit stops, bus stops, transit routes, and transit centers leading to and within mixed use urban centers shall be planned to encourage pedestrian use and the creation of mixed use, high density residential development.

II.4 Growth Concept

This Growth Concept states the preferred form of regional growth and development adopted in the Region 2040 planning process including the 2040 Growth Concept Map. This Concept is adopted for the long term growth management of the region including a general approach to approximately where and how much the urban growth boundary should be ultimately expanded, what ranges of density are estimated to accommodate projected growth within the boundary, and which areas should be protected as open space.

This Growth Concept is designed to accommodate 720,000 additional residents and 350,000 additional jobs. The total population served within this plan is 1.8 million residents within the Metro boundary.

The basic philosophy of the Growth Concept is: preserve our access to nature and build better communities. It combines the goals of RUGGO with the analysis of the Region 2040 project to guide growth for the next 50 years.

The conceptual description of the preferred urban form of region in 2040 is in the Concept Map and this text. This Growth Concept sets the direction for development of implementing policies in Metro's existing functional plans and the Charter-required regional framework plan. This direction will be refined, as well as implemented, in subsequent functional plan amendments and framework plan components. Additional planning will be done to test the Growth Concept and to determine implementation actions. Amendments to the Growth Concept and some RUGGO Objectives may be needed to reflect the results of additional planning to maintain the consistency of implementation actions with RUGGO.

The basic principles of the Growth Concept apply Growth Management Goals and Objectives in RUGGO. An urban to rural transition to reduce sprawl, keep a clear distinction between urban and rural lands and balance re-development is needed. For its long term urban land supply, the Growth Concept estimates that about 14,500 acres will be needed to accommodate projected growth. These lands will be selected from about 22,000 acres of Urban Reserve Study Area shown on the Concept Map. This assumes cooperative agreements with neighboring cities to coordinate planning for the proportion of projected growth in the Metro region expected to locate within their urban growth boundaries and urban reserve areas.

The Metro UGB would only expand into urban reserves when need for additional urban land is demonstrated. Rural reserves are intended to assure that Metro and neighboring cities remain separate. The result is intended to be a compact urban form for the region coordinated with nearby cities to retain the region's sense of place.

Mixed use urban centers inside the urban growth boundary are one key to the Growth Concept. Creating higher density centers of employment and housing with compact development and transit service is intended to provide efficient access to goods and services and enhances multi modal transportation. The Growth Concept uses interrelated types of centers. The Central City is the largest market area , the region's employment and cultural hub. Regional Centers serve large market areas outside the central city, connected to it by high capacity transit and highways. Connected to each Regional Center, by road and transit, are smaller Town Centers with local shopping and employment opportunities within a local market area. Planning for all of these centers will seek a balance between jobs and housing so that more transportation trips are likely to remain local and become more multi modal.

Recognition and protection of open spaces both inside the UGB and in rural reserves outside urban reserves are reflected in the Growth Concept. Open spaces, including important natural features and parks, are important to the capacity of the urban growth boundary and the ability of the region to accommodate housing and employment. Green areas on the Concept Map may be designated as regional open space. That would remove these lands from the inventory of urban land available for development. Rural reserves, already designated for farms, forestry, natural areas or rural-residential use, would remain and be further protected from development pressures.

The Concept Map shows some transportation facilities to illustrate new concepts, like "green corridors," and how land use areas, such as centers, may be served. Neither the current regional system nor final alignment choices for future facilities are intended to be represented on the Concept Map.

The percentages and density targets used in the Growth Concept to describe the relationship between centers and areas are estimates based on modeling analysis of one possible configuration of the Growth Concept. Implementation actions that vary from these estimates indicate a need to balance other parts of the Growth Concept to retain the compact urban form contained in the Growth Concept.

Neighbor Cities:

The Growth Concept recognizes that neighboring cities surrounding the region's metropolitan area are likely to grow rapidly. Communities such as Sandy, Canby, and Newberg will be affected by the Metro Council's decisions about managing the region's growth. A significant number of people would be accommodated in these neighboring cities, and cooperation between Metro and these communities is necessary to address common transportation and land-use issues.

There are three key concepts for cooperative agreements with neighbor cities:

1) There shall be a separation of rural land between each neighboring city and the metropolitan area. If the region grows together, the transportation system would suffer and the cities would lose their sense of community identity.

2) There shall be a strong balance between jobs and housing in the neighbor cities. The more a city retains a balance of jobs and households, the more trips will remain local.

3) The "green corridor," highway through a rural reserve that serves as a link between the metropolitan area and a neighbor city without access to the farms and forests of the rural reserve. This would keep accessibility high, which encourages employment growth but limits the adverse affect on the surrounding rural areas.

Rural Reserves

These are rural areas that keep adjacent urban areas separate. These rural lands are not needed or planned for development but are more likely to experience development pressures than are areas farther away.

These lands will not be developed in the foreseeable future, an idea that requires agreement among local, regional and state agencies. They are areas outside the present urban growth boundary and along highways that connect the region to neighboring cities.

New rural commercial or industrial development would be restricted. Some areas would receive priority status as potential areas for park and open space acquisition. Road improvements would specifically exclude interchanges or other highway access to the rural road system, as would any nearby extensions of urban services. Zoning would be for resource protection on farm and forestry land, and very low density residential (less than one unit for five acres) for exception land.

These rural reserves would support and protect farm and forestry operations. The reserves also would include some purchase of natural areas adjacent to rivers, streams and lakes to make sure the water quality is protected and wildlife habitat enhanced. Large natural features, such as hills and buttes, also would be included as rural reserves because they buffer developed areas and are poor candidates for compact urban development.

Rural reserves are designated in areas that are most threatened by new development, that separate communities, or exist as special resource areas.

Rural reserves also would be retained to separate cities within the Metro boundary. Cornelius, Hillsboro, Tualatin, Sherwood and Wilsonville all have existing areas of rural land that provide a break in urban patterns. New areas of urban reserves, that are indicated on the

Concept Map are also separated by rural reserves, such as the Damascus-Pleasant Valley areas from Happy Valley.

The primary means of achieving rural reserves would be through the regional framework plan for areas within the Metro boundary, and voluntary agreements among Metro, the counties, neighboring cities, and the state for those areas outside the Metro boundary. These agreements would prohibit extending urban growth into the rural reserves and require that state agency actions are consistent with the rural reserve designation.

Open Spaces

The areas designated open space on the Concept map are parks, stream corridors, wetlands and floodplains, largely undeveloped upland areas, or areas of very low density residential development. Many of these natural features already have significant land set aside as open space. The Tualatin Mountains, for example, contain major parks such as Forest Park and Tryon Creek State Park and numerous smaller parks such as Gabriel Park in Portland and Wilderness Park in West Linn. Other areas are oriented toward wetlands and streams, with Fanno Creek in Washington County having one of the best systems of parks and open space in the region.

Designating these areas as open spaces would have several effects. First, it would remove these land from the category of urban land that is available for development. The capacity of the urban growth boundary would have to be calculated without these, and plans to accommodate housing and employment would have to be made without them. Secondly, these natural areas, along with key rural reserve areas, would receive a high priority for purchase as parks and open space, such as Metro's Greenspaces program. Finally, regulations could be developed to protect these critical natural areas that would not conflict with housing and economic goals, thereby having the benefit of regulatory protection of critical creek areas, low-density development, and transfer of development rights to other lands better suited for development.

About 35,000 acres of land and water inside today's urban growth boundary are included as open spaces in the Growth Concept Map. Preservation of these Open Spaces could be achieved by a combination of ways. Some areas could be purchased by public entities, such as Metro's Greenspaces program or local park departments. Others may be donated by private citizens or by developers of adjacent properties to reduce the impact of development. Still others could be protected by very low-density residential zoning, clustering housing on portions of the land while leaving important features as common open space.

Centers

Creating higher density centers of employment and housing is advantageous for several reasons. These centers provide access to a variety of goods and services in a relatively small geographic area, creating a intense business climate. Having centers also makes sense from a transportation perspective, since most centers have an accessibility level that is conducive to transit, bicycling and walking. Centers also act as social gathering places and community centers, where people would find the "small town atmosphere" they cherish.

The major benefits of centers in the marketplace are accessibility and the ability to concentrate goods and services in a relatively small area. The problem in developing centers, however, is that most of the existing centers are already developed and any increase in the density must be made through redeveloping existing land and buildings. Emphasizing redevelopment in centers over development of new areas of undeveloped land is a key strategy in the Growth Concept.

There are three types of centers, distinguished by size and accessibility. The central city is downtown Portland and is accessible to millions of people. Regional centers are accessible to hundreds of thousands of people, and town centers are accessible to tens of thousands.

The Central City

Downtown Portland serves as our major regional center and functions quite well as an employment and cultural hub for the metropolitan area. It provides accessibility to the many businesses that require access to a large market area and also serves as the location for cultural and social functions that draw the region together. It is the center for local, regional, state, and federal governments, financial institutions, commerce, the center for arts and culture, and for visitors to the region.

In addition, downtown Portland has a high percentage of travel other than by car -- three times higher than the next most successful area. Jobs and housing are be readily available there, without the need for a car. Maintaining and improving upon the strengths of our regional downtown shall remain a high priority.

Today, about 20 percent of all employment in the region is in downtown Portland. Under the Growth Concept, downtown Portland would grow at the same rate as the rest of the region, and would remain the location of 20 percent of regional employment. To do this, downtown Portland's 1990 density of 150 people per acre would increase to 250 people per acre. Improvements to the transit system network and maintenance of the highway system would provide additional mobility to and from the city center.

Regional centers

There are six regional centers, serving four market areas (outside of the Central City market area). Hillsboro serves that western portion of the region, and Gresham the eastern. The Central city serves most of the Portland area as a regional center. Downtown Beaverton and Washington Square serve the Washington County area, and Clackamas Town Center and Milwaukie together serve Clackamas County and portions of outer south east Portland.

These Regional Centers would become the focus of compact development, redevelopment, and transit and highway improvements. The Growth Concept accommodates three percent of new household growth and 11 percent of new employment growth in these regional centers. From the current 24 people per acre, the Growth Concept would allow up to 60 people per acre.

Transit improvements would include light-rail connecting all regional centers to the Central City. Highway improvements also would focus on ensuring that these centers are attractive places to conduct business. Eventually, these centers would grow to the density of downtown Vancouver, Washington -- about one-third of downtown Portland's density, but three times denser than these areas today.

Town centers

Smaller than regional centers and serving populations of tens of thousands of people, town centers are the third type of center with compact development and transit service. Town centers would accommodate about 3 percent of new households and more than 7 percent of new employment. The 1990 density of an average of 23 people per acre would nearly double -- to about 40 persons per acre, the current densities of development along Hawthorne Boulevard and in downtown Hillsboro.

Town centers would provide local shopping and employment opportunities within a local market area. They are designed to provide local retail and services, at a minimum. They also would vary greatly in character. Some would become traditional town centers, such as Lake Oswego, Oregon City, and Forest Grove, while others would change from an auto-oriented development into a more complete community, such as Hillsdale. Many would also have regional specialties, such as office centers envisioned for the Ceder Mill town center. Several new town centers are designated, such as in Happy Valley and Damascus, to accommodate the retail and service needs of a growing population while reducing auto travel. Others would combine a town center within a regional center, offering the amenities and advantages of each type of center.

Corridors

Corridors are not as dense as centers but also are located along good quality transit lines. An

example of a present-day corridor are Beaverton-Hillsdale Highway or Macadam Boulevard. They provides a place for densities that are somewhat higher than today and that are convenient to transit. Typical new developments would include rowhouses, duplexes, and one to three story office and retail buildings, and average 25 persons per acre.

Station Communities

Station communities are nodes of development centered around a light rail or high capacity transit station. They provide for the highest density outside centers. The station communities would encompass an area approximately one half mile from a station stop. The densities of new development would average 45 persons per acre. Zoning ordinances now set minimum densities for most Eastside and Westside MAX station communities. An extensive station community planning program is now under way for each of the Westside station communities, and similar work is envisioned for the proposed South/North line. It is expected that the station community planning process will result in specific strategies and plan changes to implement the station communities concept.

Because the Growth Concept calls for many corridors and station communities throughout the region, they would together accommodate 27 percent of the new households of the region and nearly 15 percent of new employment.

Main streets

During the early decades of this century, main streets served by transit and characterized by a strong business and civic community were a major land-use pattern throughout the region. Examples remain in Hillsboro, Milwaukie, Oregon City and Gresham, as well as the Westmoreland neighborhood and Hawthorne Boulevard. Today, these areas are undergoing a revival and provide an efficient and effective land-use and transportation alternative. The Growth Concept calls for main streets to grow from 1990 levels of 36 people per acre to 39 per acre. Main streets would accommodate nearly two percent of housing growth.

Main streets typically will serve neighborhoods and may develop a regional specialization -- such as antiques, fine dining, entertainment, or specialty clothing -- that draws people from other parts of the region. When several main streets occur within a few blocks of one another, they serve as a dispersed town center, such as the main street areas of Belmont, Hawthorne, and Division that form a town center for inner southeast Portland.

Neighborhoods

Residential neighborhoods would remain a key component of the Growth Concept and would fall into two basic categories. Inner neighborhoods are Portland and the older suburbs of

Beaverton, Milwaukie and Lake Oswego, and would include primarily residential areas that are accessible to employment. Lot sizes would be smaller to accommodate densities increasing from 1990 levels of about 11 people per acre to about 14 per acre. Inner neighborhoods would trade smaller lot sizes for better access to jobs and shopping. They would accommodate 28 percent of new households and 15 percent of new employment (some of the employment would be home occupations and the balance would be neighborhood-based employment such as schools, daycare and some neighborhood businesses).

Outer neighborhoods would be farther away from large employment centers and would have larger lot sizes and lower densities. Examples include outer suburbs such as Forest Grove, Sherwood, and Oregon City, and any additions to the urban growth boundary. From 1990 levels of nearly 10 people per acre, outer neighborhoods would increase to 13 per acre. These areas would accommodate 28 percent of new households and 10 percent of new employment.

One of the most significant problems in some newer neighborhoods is the lack of through streets, a recent phenomenon that has occurred in the last 25 years. It is one of the primary causes of increased congestion in new suburbs. Traditional neighborhoods contained a grid pattern with up to 20 through streets per mile. But in new areas, one to two through streets per mile is the norm. Combined with large scale single-use zoning and low densities, it is the major cause of increasing auto dependency in neighborhoods. While existing neighborhoods probably will not change, areas of largely vacant land shall develop master street plans to including at least ten through local streets per mile, which would allow for better access and still allow some albeit short, cul-de-sacs.

Employment areas

Industrial areas would be set aside exclusively for industrial activities. They include land-intensive employers, such as those around the Portland International Airport, the Hillsboro Airport and some areas along Highway 212/224. Industrial areas are expected to accommodate ten percent of regional employment and no households.

Other employment centers would be designated as mixed-use employment areas, mixing various types of employment and including some residential development as well. These mixed-use employment areas would provide for about five percent of new households and 14 percent of new employment within the region. Densities would rise substantially from 1990 levels of about 11 people per acre to 20 people per acre.

Urban Reserves

One important feature of the Growth Concept is that it would accommodate all 50 years of forecasted growth through a relatively small amount of urban reserves. Urban reserves consist

of land set aside outside the present urban growth boundary for future growth. The Growth Concept contains approximately 22,000 acres of Urban Reserve Study Areas shown on the Concept Map. Less than 15,000 of these are needed for growth if the other density goals of the Growth Concept are met. Over 75 percent of these lands are currently zoned for rural housing and the remainder are zoned for farm or forestry uses. These areas shall be refined to the 14,500 acres required by the Growth Concept for designation of urban reserves areas under the LCDC Urban Reserve Rule and inclusion in the regional framework plan.

Transportation Facilities

The transportation elements needed to create a successful growth management policy are those that support the Growth Concept. Traditionally, streets have been defined by their traffic-carrying potential, and transit service according to it's ability to draw commuters. Other travel modes have not been viewed as important elements of the transportation system. The Growth Concept establishes a new framework for planning in the region by linking urban form to transportation. In this new relationship, transportation is viewed as a range of travel modes and options that reinforce the region's growth management goals.

Within the framework of the Growth Concept is a network of multi-modal corridors and regional through-routes that connect major urban centers and destinations. Through-routes provide for high-volume auto and transit travel at a regional scale, and ensure efficient movement of freight. Within multi-modal corridors, the transportation system will provide a broader range of travel mode options, including auto, transit, bicycle and pedestrian networks, that allow choices of how to travel in the region. These travel options will encourage the use of alternative modes to the auto, a shift that has clear benefits for the environment and the quality of neighborhoods and urban centers.

Regional through-routes

These are the routes that move people and goods around the region, and connect regional centers and the Central City. They include freeways, limited access highways, and heavily traveled arterials, and usually function as through-routes. As such, they are important not only because of the movement of people, but as one of the region's major freight systems. Since much of our regional economy depends on the movement of goods and services, it is essential to keep congestion on these roads at manageable levels. These major routes frequently serve as transit corridors but are seldom conducive to bicycles or pedestrians because of the volume of auto and freight traffic that they carry.

With their heavy traffic, and high visibility, these routes are attractive to business. While they serve as an appropriate location for auto-oriented businesses, they are poor locations for businesses that are designed to serve neighborhoods or sub-regions. These are better located

on multi-modal arterials. They need the highest levels of access control. In addition, it is important that they not become barriers to movements across them by other forms of travel, auto, pedestrian, transit, or bicycle. They shall focus on providing access to centers, rather than access to the lands that front them.

Multi-modal arterials

These represent most of the region's arterials. They include a variety of design styles and speeds, and are the backbone for a system of multi-modal travel options. Older sections of the region are better designed for multi-modal travel than new areas. Although these streets often smaller than suburban arterials, they carry a great deal of traffic (up to 30,000 vehicles a day), experience heavy bus ridership along their routes and are constructed in dense networks that encourage bicycle and pedestrian travel. The Regional Transportation Plan (RTP) shall identify these multi-modal streets and develop a plan to further encourage alternative travel modes within these corridors.

Many new streets, however, are designed to accommodate heavy auto and freight traffic at the expense of other travel modes. Multiple, wide lanes, dedicated turning lanes, narrow sidewalks exposed to moving traffic, and widely-spaced intersections and street crossings create an environment that is difficult and dangerous to negotiate without a car. The RTP shall identify these potential multi-modal corridors and establish design standards that encourage other modes of travel along these routes.

Collectors and local streets

These streets become a regional priority when a lack of adequate connections forces neighborhood traffic onto arterials. New suburban development increasingly depends on arterial streets to carry trips to local destinations, since most new local streets systems a specifically designed with curves and cul-de-sacs to discourage local through travel by any mode. The RTP should consider a minimum standard of eight to ten through streets per mile, applied to developing or undeveloped areas to reduce local travel on arterials. There should also be established standard bicycle and pedestrian through-routes (via easements, greenways, fire lanes, etc.) in existing neighborhoods where changes to the street system are not a reasonable alternative.

Light rail

Light rail transit (LRT) daily travel capacity measures in tens of thousands of riders, and provides a critical travel option to major destinations. The primary function of light rail (LRT) in the Growth Concept is to link regional centers and the Central City, where concentrations of

housing and employment reach a level that can justify the cost of developing a fixed transit system. In addition to their role in developing regional centers, LRT lines can also support significant concentrations of housing and employment at individual station areas along their routes.

GLOSSARY

Areas and Activities of Metropolitan ~~Significance~~ Concern. A program, area or activity, having significant impact upon the orderly and responsible development of the metropolitan area that can benefit from a coordinated multi-jurisdictional response under ORS 268.390.

Beneficial Use Standards. Under Oregon law, specific uses of water within a drainage basin deemed to be important to the ecology of that basin as well as to the needs of local communities are designated as "beneficial uses". Hence, "beneficial use standards" are adopted to preserve water quality or quantity necessary to sustain the identified beneficial uses.

Economic Opportunities Analysis. An "economic opportunities analysis" is a strategic assessment of the likely trends for growth of local economies in the state consistent with OAR 660-09-015. Such an analysis is critical for economic planning and for ensuring that the land supply in an urban area will meet long-term employment growth needs.

Exception. An "exception" is taken for land when either commitments for use, current uses, or other reasons make it impossible to meet the requirements of one or a number of the statewide planning goals. Hence, lands "excepted" from statewide planning goals 3 (Agricultural Lands) and 4 (Forest Lands) have been determined to be unable to comply with the strict resource protection requirements of those goals, and are thereby able to be used for other than rural resource production purposes. Lands not excepted from statewide planning goals 3 and 4 are to be used for agricultural or forest product purposes, and other, adjacent uses must support their continued resource productivity.

Exclusive farm use -- Land zoned primarily for farming, and restricting many uses that are incompatible with farming , such as rural housing. Some portions of rural reserves also may be zoned as exclusive farm use.

Family Wage Job. A permanent job with an annual income greater than or equal to the average annual covered wage in the region. The most current average annual covered wage information from the Oregon Employment Division shall be used to determine the family wage job rate for the region or for counties within the region.

Fiscal Tax Equity. The process by which inter-jurisdictional fiscal disparities can be addressed through a partial redistribution of the revenue gained from economic wealth, particularly the increment gained through economic growth.

Functional Plan. A limited purpose multi-jurisdictional plan for an area or activity having

significant district-wide impact upon the orderly and responsible development of the metropolitan area that serves as a guideline for local comprehensive plans consistent with ORS 268.390.

Growth Concept -- a concept for the long-term growth management of our region, stating the preferred form of the regional growth and development, including where and how much the urban growth boundary should be expanded, what densities should characterize different areas, and which areas should be protected as open space.

High capacity transit -- Transit routes that may be either a road designated for frequent bus service or for a light-rail line.

Housing Affordability. The availability of housing such that no more than 30% (an index derived from federal, state, and local housing agencies) of the monthly income of the household need be spent on shelter.

Industrial areas -- Large tracts of land set aside for industrial use.

Infill. New development on a parcel or parcels of less than one contiguous acre located within the urban growth boundary.

Infrastructure. Roads, water systems, sewage systems, systems for storm drainage, ~~systems for stormdrainage,~~ bridges, and other facilities developed to support the functioning of the developed portions of the environment.

Inner neighborhoods -- Areas in Portland and the older suburbs that are primarily residential, close to employment and shopping areas, and have slightly smaller lot sizes and higher population densities than in outer neighborhoods

Key or Critical Public Facilities and Services. Basic facilities that are primarily planned for by local government but which also may be provided by private enterprise and are essential to the support of more intensive development, including transportation, water supply, sewage, parks, and solid waste disposal.

Local Comprehensive Plan. A generalized, coordinated land use map and policy statement of the governing body of a city or county that inter-relates all functional and natural systems and activities related to the use of land, consistent with state law.

Metropolitan Housing Rule. A rule (OAR 660, Division 7) adopted by the Land Conservation and Development Commission to assure opportunity for the provision of adequate numbers of needed housing units and the efficient use of land within the Metro Urban Growth Boundary. This rule establishes minimum overall net residential densities for all cities and counties within

the urban growth boundary, and specifies that 50% of the land set aside for new residential development be zoned for multifamily housing.

Main streets -- Neighborhood shopping areas along a main street or at an intersection, sometimes having a unique character that draws people from outside the area. NW 23rd Avenue and SE Hawthorne Boulevard are current examples of main streets.

Mixed-use employment areas-- Areas that include various types of commercial and retail development as well as some residences.

Neighborhood centers -- Retail and service development that surrounds major MAX stations and other major intersections, extending out for one-quarter to one-half mile.

Neighboring cities -- Cities such as Sandy, Canby, and Newberg that are outside Metro's jurisdiction but will be affected by the growth policies adopted by the Metro Council.

Open space -- Publicly and privately -owned areas of land, including parks, natural areas, and areas of very low density development inside the urban growth boundary.

Outer neighborhoods -- Areas in the outlying suburbs that are primarily residential, farther from employment and shopping areas, and have slightly larger lot sizes and lower population densities than inner neighborhoods.

Regional centers -- Areas of mixed residential and commercial use that serve hundreds of thousands of people and are easily accessible by different types of transit. Examples include traditional centers such as downtown Gresham and new centers such as Clackamas Town Center.

Rural reserves -- Areas that are a combination of public and private lands outside the urban growth boundary, used primarily for farms and forestry. They are protected from development by very low-density zoning and serve as buffers between urban areas.

~~**Mixed Use Urban Center.** A "mixed use urban center" is a designated location for a mix of relatively high density office space, commercial activity, residential uses, and supporting public facilities and services, parks and public places. There will be a limited number of these centers designated in the region, and they will be characterized by design elements which work to minimize the need to make trips by automobile either to or within a center. State, regional, and local policy and investment will be coordinated to achieve development and functional objectives for these centers.~~

State Implementation Plan. A plan for ensuring that all parts of Oregon remain in compliance with Federal air quality standards.

Town centers -- Areas of mixed residential and commercial use that serve tens of thousands of people. Examples include the downtowns of Forest Grove and Lake Oswego.

Transportation corridors -- Residential and retail development concentrated along major arterials and bus lines.

Urban Form. The net result of efforts to preserve environmental quality, coordinate the development of jobs, housing, and public services and facilities, and inter-relate the benefits and consequences of growth in one part of the region with the benefits and consequences of growth in another. Urban form, therefore, describes an overall framework within which regional urban growth management can occur. Clearly stating objectives for urban form, and pursuing them comprehensively provides the focal strategy for rising to the challenges posed by the growth trends present in the region today.

Urban Growth Boundary. A boundary which identifies urban and urbanizable lands needed during the 20-year planning period to be planned and serviced to support urban development densities, and which separates urban and urbanizable lands from rural land.

Urban Reserve Area. ~~and which separates urban and urbanizable lands from rural lands.~~

~~Urban Reserve.~~ An area adjacent to the present urban growth boundary defined to be a priority location for any future urban growth boundary amendments when needed. Urban reserves are intended to provide cities, counties, other service providers, and both urban and rural land owners with a greater degree of certainty regarding future regional urban form. Whereas the urban growth boundary describes an area needed to accommodate the urban growth forecasted over a twenty year period, the urban reserves plus the area inside the urban growth boundary estimate the area capable of accommodating the growth expected for 50 years. ~~the urban reserves estimate the area capable of accommodating the growth expected for an additional 30 years.~~

REGION 2040

Recommended Alternative

Technical Appendix

September 15, 1994

METRO

Recommended Alternative
Technical Appendix - Land Use and Transportation

Table of Contents

Introduction

The Technical Appendix provides background data for the interested reader on the Recommended Alternative analysis and conclusions (see Region 2040 Recommended Alternative). The Recommended Alternative was modeled for its land use and transportation components. The objective was to estimate the capacity and density of the region as designed, and to estimate transportation characteristics associated with this design.

The land use modeling involved Metro's Regional Land Information System (RLIS) - a computer database with geographic display and analysis capabilities. Specifically the model uses the Arc-Info Grid software. Metro's Data Resource Center operates and manages the RLIS system. The transportation modeling involved the use of the EMME/2 transportation planning software package as well as the survey-based travel demand forecasting model. Metro's Travel Forecasting Section leads this technical travel forecasting analysis.

This appendix provides summary data. The land use tables are preceded by explanatory notes useful for understanding the tables. The land use tables are divided into those detailing assumptions or inputs, and those that detail the results or outputs. The transportation data features modeling outputs, as well as some of the variables or input assumptions. The transportation information is contained in memo form.

Land Use Assumptions for Capacity Analysis See Tables 1 - 4

Table 1 - Regional Allocation

Population and employment growth totals used in the 2040 modeling process are based on a middle range forecast adopted at the beginning of the 2040 process. A portion of the growth is attributable to the Oregon urban area (approximately 2/3's of the 4 county growth). Most of the analysis in this document concentrates on the impact of this Oregon urban growth component.

1. The four county total is comprised of the allocation to Clark Co. as originally established in the 2040 Base Case II allocation, plus the allocation to the urban areas in three Oregon counties: Clackamas, Multnomah and Washington. The Metro Area total is new growth within the Metro urban growth boundary and the urban reserve areas.

2. The Neighboring cities allocation is their base growth plus a share of the metro urban growth. 30,000 households and jobs are assumed to go to the three largest neighboring cities: Sandy, Canby and Newberg. These three neighboring cities received in total an allocation they estimated to be able to accommodate in their urban growth boundaries or urban reserves. Other neighboring cities such as Estacada, Scappoose and North Plains retain a base allocation projection, but no additional allocation from the metro urban area.

3. The rural allocation is for those rural residential parcels in the three Oregon counties which lie outside of small towns or cities.

4. The Grid Model is the RLIS computer application used for calculating the potential capacity of the Recommended Alternative design. It breaks the region up into quarter acre cells or grids which become a common unit of measurement.

5. The Grid model distinguishes between developed, vacant, and redeveloped land. It accounts for existing households and employment on developed land, as well as existing households and employment on "redevelopable" land. It calculates the capacity of vacant and redevelopable land based on the plan designation and zoning or density assumptions. The allocation in Grid is the new growth, plus existing households and employment on redeveloped land (which can be considered to either remain in the same location or relocate elsewhere in the region). The difference between the capacity and the allocation yields the extra capacity as designed and zoned.

6. There is a breakout of 1992 households and employment on developed and redevelopable land. This is followed by the derivation of the Metro urban total, which subtracts for an allocation to neighboring cities. Urban totals are given, which includes

all urban development for the Oregon side of the metropolitan area.

7. Urban Reserve totals are given for just that area analyzed in the Recommended Alternative design, which included 14,500 gross acres.

8. A capacity estimate for 1990 plans is listed. It used existing plan designations and their associated zoning densities. The shortfall noted is the difference between the projected current capacity and the estimate of new growth.

Table 2 - Growth Capacity Zoning Input Menu

1. This menu is a representation of the menu system used in the GIS Grid application for estimating capacity in the Recommended Alternative. Across the top are the regional zoning codes in letter and numeric form. FF is farm forest and is represented by the number 1, MUC-1 is mixed use center 1 and is represented by the number 18. (See complete Abbreviations listed on following pages.) Down the left side are the regional design types used in the Recommended Alternative. The design types have a geographic coverage. This coverage overlays existing zoning designation as established in local comprehensive plans.

2. The Input Menu is used to change the underlying zoning as it exists so that it will reflect the design or intent of the Recommended Alternative. The matrix allows one to change the underlying zoning by design type. For the Central City, all existing zoning (whether or not it even existed there to begin with) was changed to a number 20 - representing MUC-3, the highest mixed use center zoning. The new zoning designations established (#'s 18, 19, 20, 21, 22) were created to allow for flexibility and more varied zoning categories than presently exist.

3. In general, the centers changed the full range of zones (FF to MFR to CC to IH) from their existing designation to the MUC designation. The Transit Corridors and Nodes, and Main Streets changed to higher density residential and commercial zones, replacing the single use designations with mixed use designations. The Mixed Use Employment Areas assumed the new MUEA (#21) designation which allows some residential, and the Industrial Sanctuaries assumed a lower density exclusive employment designation. Neighborhood 1 became residential SFR-3 zoning, with some mixed use zoning, Neighborhood 2 became residential SFR-2 zoning, with some mixed uses. The neighborhoods downzoned the multi-family component presumably away from primary transit service (minimum 10 min. peak headways). The design types in urban reserves follow much the same re-zoning pattern as those inside the current UGB, in concert with the design. (See a Recommended Alternative analysis map for a graphic representation of the design type coverage.)

4. The actual densities assigned (and used in Grid) to any zoning type are listed next to "Net Zoning Densities". These show the number of dwelling units and employees associated with any zoning category. There are Floor Area Ratios (FARs) also listed to show relevant size or height of the zoning in mixed use and commercial/industrial categories. For instance, the MFR-1 zoning used in the Input Matrix is assumed to house 23 households and 3 employees on a net acre of land; MUC-2 is assumed to house 22 households and 90 employees on a net acre of land, with a FAR of 1.5 (anywhere from 2-4 stories depending on the parking configuration and assumptions).

Table 3 - Acreage Calculation Assumptions

Environmental constraints, gross to net reductions, and redevelopment all affect the net buildable acreage used by Grid to calculate the capacity in the Recommended Alternative.

1. Before environmental constraints are applied to the gross buildable acreage available in the region, a no-build calculation was completed. The no-build calculation removed all streets, parks and open space, wetlands, and rivers. Environmental constraints applied to the gross vacant and redevelopable land included two criteria - 100 year floodplains, and steep slopes greater than 30%. The percentages listed indicate the amount of buildable land allowed to remain in the inventory when in floodplains or on steep slopes. For example, in Transit Corridors and Nodes, 50% of the floodplain land and 40% of the steep slope land was considered buildable.

2. Gross to net reductions were applied to all gross buildable land after environmental constraints were accounted for. The gross to net sets aside a portion of the gross acre for street, utility and other public facilities. The larger parcels or acreages reviewed by GIS have a greater reduction than do the smaller parcels, with a slight variation according to residential or commercial use.

3. A vacancy rate is applied in the Grid application when calculating the household capacity. Five percent of the available land is assumed to remain vacant at all times for reasons of construction, repair, etc.

4. Redevelopment assumptions used were based on building value per quarter acre tract of land. The Grid application samples quarter acre cells of developed land in the region. If the building value is less than the amount listed by design type, then that cell or parcel is considered redevelopable. Where multiple parcels overlap a quarter acre cell, the parcel with the greatest percentage of coverage in the cell is used for the determination. For example, in the Main Streets design areas, where a $60,000/quarter acre valuation ceiling exists, if a parcel sampled was valued at $100,000 it was not considered redevelopable, if a different cell had a value of $30,000 it was considered redevelopable. The redevelopment ceilings were highest

in the centers, main streets and corridors. A zero value ($0) means no redevelopment was intended, and the redevelopment criteria used in the model for this design type was a building valuation of zero.

Table 4 - Zoning and Design Abbreviations

The regional zoning codes are listed for reference, as are the design type abbreviations. The abbreviations are not used regularly but do appear in some tables and sometimes in the text.

1. The zoning codes come from Metro's Regional Land Information System directory, a directory that standardizes zoning for regional applications.

2. The design types refer to the geographic coverages in the Recommended Alternative.

Table 1 - Regional Control Totals, Households and Employment Recommended Alternative Analysis

'2040 new growth, plus sub-categories and modeling results

	Households	Employment
Clark Co.	133317	108295
Metro Area (Urban growth boundary/urban reserves)	359563	358072
Neighborhing Cities	47000	46000
Rural	7225	9793
2040 Total Growth, Four County	547105	522160

Grid model capacity (based on assumptions)	405086	575145
Allocation:		
New Growth (to vacant and redeveloped land)	359563	358072
Accounting for Existing Persons on Redeveloped Land	36424	189501
Total Grid Allocation	395987	547573
Extra Capacity	9099	27572

Developed Land	402823	543621
Redevelopable land in 1992	36424	189501
Total in 1992	439247	733122

2040 New Growth Metro Area	389563	388072
Neighboring cities allocation (assumption)	30000	30000
2040 Targets inside Metro UGB/UR	359563	358072

Oregon Urban Total - Existing + New	798810	1091194
- with neighboring cities	828810	1121194

Urban Reserves, Existing	1614	1396
Urban Reserves, Capacity	59772	19093

Capacity estimate using 1990 plans		
- for inside existing UGB	168120	324635
- shortfall for accomodating new growth	-191443	-33437

Note: Total employment is consistent with the original Base Case projections, and does not reflect Bureau of Economic Analysis update (701,628).

Table 2 Growth Capacity Zoning Input Menu

Comp Plan Designation

Recommended Alternative (v. 18, 8/16/94) — New Zoning Designations

Zoning	FF	RRFU	SFR-1	SFR-2	SFR-3	MFR-1	MFR-2	PUD	CN	CG	CC	CO	IL	IH	IMU	POS	PF	MUC-1*	MUC-2*	MUC-3*	MUEA	IS
Zoning Code #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Design Coverage Area																						
Central City	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	16	17					
Regional Centers	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	16	17					
Town Centers	18	18	18	18	18	18	18	18	18	18	19	19	18	18	18	16	17					
Transit Corridors & Nodes	8	8	8	8	8	6	7	8	9	9	18	18	9	9	9	16	17					
Main Streets	18	18	18	18	18	18	18	18	18	18	19	19	18	18	18	16	17					
Mix Use Employment Areas	21	21	21	21	21	6	7	21	21	21	21	21	21	21	21	16	17					
Industrial Sanctuary	22	22	22	22	22	22	22	22	22	22	22	22	22	22	15	16	22					
Neighborhood I	5	5	5	5	5	8	6	8	9	9	9	9	21	21	21	16	17					
Neighborhood II	4	4	4	4	5	8	8	8	9	9	9	9	21	21	21	16	17					
UR Town Centers	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	18	18					
UR Corridors & Nodes	6	6	6	6	6	6	7	9	9	9	9	9	6	6	6	16	17					
UR Main Streets	9	9	9	9	9	6	7	9	9	9	9	9	9	9	6	16	9					
UR Mix Use Employment Areas	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	16	17					
UR Industrial Sanctuary	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	16	17					
UR Neighborhood 1	5	5	5	5	5	8	8	9	9	10	9	9	21	21	21	16	17					
UR Neighborhood 2	4	4	4	4	5	8	8	8	9	10	9	9	21	21	21	16	17					
Greenspaces	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					

Net Zoning Densities	FF	RRFU	SFR-1	SFR-2	SFR-3	MFR-1	MFR-2	PUD	CN	CG	CC	CO	IL	IH	IMU	POS	PF	MUC-1*	MUC-2*	MUC-3*	MUEA	IS
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Dwelling Units	0	0.2	4	6.2	8.2	23	40	15	8			16			6	0		16	22	50	5	
Employees	0	0	1.25	1.8	2.4	3	6	4	17	22	100	85	15	20	11	0	10	30	90	300	15	8
FAR									0.5	0.3	1.5	1.75	0.5	0.5	0.5		0.5	1	1.5	6	0.5	0.3

These assumptions are used in the Grid application, the RLIS process by which the regional capacity is estimated based on the Recommended Alternative design.
The Menu serves as a rezoning matrix using existing comprehensive plan designations plus new zoning designations (using numbers to represent the changes).
The Zoning Densities show the assumed density of any given zone code used in the above menu.

Table 3 **Assumptions used in Grid Application** Recommended Alternative (T18)

ironmental Constraints

dable Land calculated as a Percent of Available Land (Vacant and Redevelopable gross acres)

ign Coverage Area	Floodplains	Steep Slopes
tral City	100%	100%
ional Centers	80%	100%
n Centers	80%	100%
nsit Corridors & Nodes	50%	40%
n Streets	70%	50%
Use Employment Areas	80%	0%
strial Sanctuary	80%	0%
ghborhood I	0%	40%
ghborhood II	0%	40%
Town Center	80%	75%
Corridors & Nodes	50%	40%
Main Streets	60%	50%
Mix Use Employment Areas	80%	0%
Industrial Sanctuary	80%	0%
Neighborhood 1	0%	0%
Neighborhood 2	0%	0%

ss to Net Reduction (for future streets, schools, utilities, etc.)

	Factor (applied to gross buildable acres to yield net acres)
s than 1 acre	90%
idential greater than 1 acre	75%
n-Residential greater than 1 acre	80%

ancy Rate: 95%

ancy rate applied to households per net acre

levelopment

levelopment Valuation Ceiling expressed as $/quarter acre

rter acre properties with building values less than amount listed are assumed to redevelop.

ign Coverage Area	Building Valuation (per quarter acre grid cell)
tral City	$120,000
ional Centers	$90,000
n Centers	$70,000
nsit Corridors & Nodes	$40,000
n Streets	$60,000
Use Employment Areas	$10,000
strial Sanctuary	$10,000
ghborhood I	$0
ghborhood II	$0
Town Center	$60,000
Corridors & Nodes	$40,000
Main Streets	$50,000
Mix Use Employment Areas	$20,000
Industrial Sanctuary	$20,000
Neighbhorhood 1	$0
Neighborhood 2	$30,000

Table 4 Zoning and Design Type Abbreviations

Zoning Codes

FF - Farm and Forest
RRFU - Rural or Future Urban
SFR-1 - Single Family (10,000 to 40,000)
SFR-2 - Single Family (7,000 to 10,000)
SFR-3 - Single Family (5,000 to 7,000)
MFR-1 - Multi-family 8 to 25 units per acre
MFR-2 - Multi-family 25 or more units per acre
PUD - Planned unit development/mixed use (used as an intermediate residential zone - neo-traditional design averaging 2500 square foot lots)
CN - Neighborhood Commercial, floor space 5,000 to 10,000
CG - General Commercial - large scale commercial districts
CC - Central Commercial, central business districts
CO - Office Commercial - Office uses and mixed uses
IL - Light Industrial (wharehousing and light processing/fabrication)
IH - Heavy Industrial (light processing and heavy manufacturing)
IMU - Mixed Use Industrial (mix of light manufacturing, office and retail uses)
POS - Parks and Open Space
PF - Public Facilities
MUC-1 - Mixed Use Center 1 (least intense center - Floor Area Ratio of 1)
MUC-2 - Mixed Use Center 2 (moderate intensity center FAR 1.5+)
MUC-3 - Mixed Use Center 3 (highest intensity center FAR 4+)
MUEA - Mixed Use Employment Area (mix of light industrial, office and residential)
IS - Industrial Sanctuary (low intensity industrial employment areas)

Design Type Codes

CC - Central City
RC - Regional Center
TC - Town Center
MS - Main Street
CN - Transit Corridors and Nodes
GR - Greenspaces
N1 - Neighborhood One or Inner Neighborhood
N2 - Neighborhood Two or Outer Neighborhood
EA - Mixed Use Employment Area
IS - Industrial Sanctuary or Industrial Area
UR - prefix for Urban Reserves - used with all of the above design types to indicate areas in Urban Reserves

Land Use Summary Output Tables See Tables 5 - 12

Table 5 - Households and Employment by Design Type, Persons per Acre

The land use data is summarized by design type, zoning, and jurisdiction. Table 5 is a regional summary for all land (developed, vacant and redevelopable) inside the different *design type* coverage areas. Table 5 displays households (HH) and employees (EMP), acres; persons per acre, as well as the net acres either developed or available. A jobs/housing ratio is also listed (number of jobs per household).

1. 1992 Existing, is the developed acres, households and employment for each design area.

2. 2040 New Growth is the increment of new development on vacant and redeveloped land. The household and employment numbers here included the existing persons on redeveloped land; when estimating densities (persons per acre) for the Recommended Alternative all persons located on newly developed or redeveloped land must be counted, including those existing persons reconfigured through redevelopment or renovations.

3. 1992 Comp Plan build out refers to the existing comprehensive plans and the total number of households and employees estimated to be accommodated on developed and vacant land inside the current UGB.

4. 2040 End State refers to the total household and employment accommodated in the design areas on developed, vacant and redeveloped land. This mixes existing and future distributions.

Table 6 - Households and Employment by Zoning Type, Persons per Acre

Table 6 follows the same format as Table 5 but substitutes zoning categories for design types. This gives numbers for each zoning category regionwide.

Table 7 - Jurisdiction Households and Employment, Existing, New and Total

Table 7 gives the households and employees by jurisdiction. The three listings are for 1992 existing, the net new growth for each jurisdiction between 1992 and 2040, and the total 2040 allocation. The population figures are not directly attributable to the modeling work, which used households and employment (see notation). Counties are listed twice, first for the unincorporated areas, then for the total county within the Urban Reserves/UGB area.

Table 8 - Net Densities by Design Type, Existing and New

Table 8 illustrates net densities. It shows net acres, HH, EMP, and the density per acre, as well as the mix of households to employment. The table shows two sets of numbers, one representing *existing* developed densities, the second showing the potential densities of *new* development under the Recommended Alternative.

1. "Developed Acres" are the existing developed acres (including the redeveloped acres at their 1992 densities). "Available acres" are the net buildable vacant and redevelopable acres, or the available acres for the period 1990 - 2040.

2. "DU per Acre" is dwelling units (households) per acre. "EMP per Acre" is employees per acre. The same total acres in a design type are used for estimating both the average dwelling unit and employee densities. Anytime there are both du/acre and emp/acre in a design type, both uses exist, although they may not be on the same exact acre. *Different land use configurations are possible, and different assumptions can be made about how these uses are arrayed.* The "Ratio of HH/EMP" gives additional information useful in considering the relative share of households to employees in the design types.

Table 9 - Net Densities by Zoning, Existing and New

Table 9 follows the same format as Table 8, substituting zoning for design type. In the residential zones, the household densities are most useful, since one can assume that the employment will be at home (examples being SFR-2, and -3, and MFR-1 and -2). Again there are numerous potential configurations for how the mixed uses would be accommodated in the future. Examples would be in categories such as MUC-2 with 20.4 DU and 85.7 EMP per acre, or CN with 7.4 DU and 16.2 EMP per acre.

Table 10 - Jobs Housing Balance by Town Center and Regional Center market areas, Existing and Total

Jobs housing balance was estimated using the approximate market areas for the town centers and the regional centers in the Recommended Alternative. The town centers nest inside the regional centers. A map is attached to Table 10 to show the location of town centers and their aggregation to regional centers. Jobs, households, the actual ratio and an indexed ratio are all listed.

1. Town center market areas were approximated using equal distances, and they encompass all land inside the current UGB and the urban reserves. See map.

2. Regional center market areas are aggregations of town center market areas. There are five regional center market areas identified: Hillsboro, Gresham, Beaverton/WA. Square, Milwaukie/Clackamas Town Center, and Portland.

3. The ratio is jobs to housing. A positive number indicates jobs in excess of households. The regional balance in 1992 is 1.66 jobs per household on average. In 2040 there are less persons per household working and the jobs per household drops to 1.38.

4. The Indexed ratio subtracts the regional average to give a simpler positive or negative number indexed to the true regional "balance". This column shows the Town Centers or Regional Centers with positive numbers being jobs rich and those with negative numbers being housing rich. This number allows one to compare 1992 with the 2040, since the indexed ratio compensates for the variation in the regional ratio over time.

Table 11 - Residential: Single Family Multi-family and Lot Size

Table 11 shows the single family/multi-family split. It also includes the percentage estimated to fall inbetween these two categories, or attached single family. The lot sizes are also given.

1. Single family/Multi-family split is shown for existing and new development. The split is also broken down for new development on vacant and redevelopable land. The 1990 split is not derived directly from Grid, since grid allocates existing households back to single family and multi-family at regional plan densities, rather than at the built densities. This has the effect of overestimating the multi-family component. The SF/MF split in 1990 is derived from census data separately. Similarly, the lot size data in 1990 from Grid does not equate with what local experts have quoted as the actual typical lot size currently: 7,000 - 8,000 square feet vs. the Grid numbers of 8,000 to 10,000 square feet. As a result 1990 lot size numbers are not listed here.

2. The attached SF represents a moderate residential density associated with the PUD zoning category. It is equivalent to 16 units per net acre or 2500 square foot lots. It could also be reconfigured as a mix of other residential types. Nevertheless, it does not fall neatly into either the single family or multi-family categories and is highlighted separately. The SF split now includes this housing type, since it is considered single family attached.

3. The SF/MF split is also shown for the major design categories, characterizing the new residential development in these areas.

4. Average lot sizes are given for new development. As noted above the 1992 data in the Grid model is inconclusive about existing lot size and more exact data must be gathered. The neighborhood design type is listed along with its primary zoning type. The weighted average lot size is dependent on the regional split of available acreage in these two zoning categories (approximately 50/50 in the Recommended Alternative). The lot sizes here do not consider the impact of the PUD zoning category which is considered single family. The PUD category is assumed to be a variable housing type that could be 2500 square foot lots, or attached single family or a mix of either of the former with multi-family.

Table 12 - Comparing the Recommended Alternative with no UGB Expansion and 40,000 acres of Urban Reserves Designation

A different version of the Recommended Alternative was run to estimate the impact of differing sizes of the urban reserve areas on density in the region. One model run used no urban reserves, one used approximately 40,000 acres (or what were originally identified as the three tiers of potential urban reserves - the first being immediately serviceable, the second potentially serviceable, the third the most difficult and costly to provide with urban services).

1. Shown are the densities, persons per acre in the design types. 1992 is existing, the rest are new development densities (the increment of new growth including redevelopment impacts).

2. The lot size changes show the average lot sizes of the variations on the Recommended Alternative, as well as the weighted lot average lot size for the two single family residential zones. The 1992 figures show the range of existing lot sizes available under current zoning. The percentages of available land (vacant and redevelopable) in SFR-3 compared to acreage in SFR-2 are listed.

3. Percentages of attached single family (households in PUD zoning category) are listed. As mentioned above, this could be a variety of housing types, attached, detached, or a mix of multi-family and single family, where the average lot size is approximately 2500 square feet.

TABLE 5 - Households and Employees By Design Type on Net Acres

1992: EXISTING HH/EMP ON DEV. ACRES

DESIGN TYPE	DEV. AC.	HH	EMP	J/H RATIO	PERS. /AC.
Central City	1097	8143	146073	17.94	151.85
Reg. Centers	1661	5391	28416	5.27	25.26
Town Centers	1685	6574	28168	4.28	26.53
Main Streets	2632	15168	47410	3.13	32.49
Corridors/Nodes	30059	145787	215662	1.48	19.36
Neighborhood 1	44853	192932	82565	0.43	12.65
Neighborhood 2	13198	43365	19972	0.46	9.77
Employment Areas	4459	3665	52152	14.23	13.76
Indust. Sanct.	10024	2171	87152	40.14	9.24
Greenspaces	6223	14437	24156	1.67	9.71
UR Town Centers	36	10	775	77.50	22.38
UR Main Sts.	0	0	0	-	-
UR Corr/Nodes	408	302	28	0.09	1.93
UR Neigh. 1	217	194	0	0.00	2.25
UR Neigh. 2	2471	975	220	0.23	1.08
UR Emp. Area	45	11	343	31.18	8.19
UR Indust. Sanct.	0	0	0	-	-
UR Greensp.	253	122	30	0.25	1.33
Totals	119066.5	439125	733092		

2040: NEW GROWTH ON VACANT AND REDEVELOPED ACRES*

DESIGN TYPE	VAC. AC.	REDEV. AC.	HH	EMP	J/H RATIO	PERS./AC.
Central City	115	322	19756	121523	6.15	369.18
Reg Centers	154	448	11914	50133	4.21	122.96
Town Centers	495	336	12899	34171	2.65	72.17
Main Streets	186	352	7927	17605	2.22	62.13
Corridors/Nodes	5508	3879	113348	101942	0.90	35.01
Neighborhood 1	7557	2132	79000	39969	0.51	20.43
Neighborhood 2	8807	1097	67715	27668	0.41	16.47
Employment Areas	3523	1108	20284	64312	3.17	22.65
Indust. Sanct.	5931	3377	3373	71155	21.10	8.37
Greenspaces	4703	386	0	2	-	0.00
UR Town Centers	19	11	620	2598	4.19	126.55
UR Main Sts.	0	0	0	0	-	-
UR Corr/Nodes	592	147	15700	2195	0.14	45.45
UR Neigh. 1	522	14	4079	1245	0.31	17.55
UR Neigh. 2	5782	982	38989	11873	0.30	13.28
UR Emp. Area	68	15	385	1183	3.08	23.57
UR Indust. Sanct	0	0	0	0	-	-
UR Greensp.	343	31	0	0	-	0.00
Totals	43961.738	14605.43344	395987	547573		

* New growth includes HH and EMP on redeveloped land in '92.

1992: COMP PLAN BUILD OUT WITHIN EXISTING UGB

DESIGN TYPE	TOT NET. AC.	HH	EMP	J/H RATIO	PERS. /AC.
Central City	1277	7903	147089	18.61	128.96
Reg. Centers	1860	7488	37813	5.05	29.28
Town Centers	2124	8977	37201	4.14	26.91
Main Streets	1892	11947	41363	3.46	35.90
Corridors/Nodes	36581	184289	298726	1.62	19.37
Neighborhood 1	55588	253138	147337	0.58	12.77
Neighborhood 2	23678	100343	65944	0.66	12.21
Employment Areas	11533	12674	140761	11.11	14.65
Indust. Sanct.	8119	3391	86230	25.43	11.55
Greenspaces	10810	14919	33344	2.23	6.15
UR Town Centers					
UR Main Sts.					
UR Corr/Nodes					
UR Neigh. 1					
UR Neigh. 2					
UR Emp. Area					
UR Indust. Sanct.					
UR Greensp.					
Totals	146308.74209	568754.8	772342		

2040: END STATE - TOTAL GROWTH ON ALL DEVELOPABLE ACRES

DESIGN TYPE	DEV. AC	AVAIL. AC.	HH	EMP	J/H RATIO	PERS./AC.
Central City	710	436	26306	226202	8.60	243.25
Reg. Centers	1118	602	15886	68738	4.33	58.45
Town Centers	1274	831	18699	54979	2.94	43.88
Main Streets	2220	539	21613	58091	2.69	36.73
Corridors/Nodes	25180	9386	244952	268036	1.09	21.93
Neighborhood 1	42058	9690	263005	109426	0.42	12.28
Neighborhood 2	11734	9904	106757	41756	0.39	11.80
Employment Areas	3023	4630	22917	102046	4.45	19.32
Indust. Sanct.	5738	9308	4976	122501	24.62	8.80
Greenspaces	5162	5089	12903	19476	1.51	4.42
UR Town Centers	22	30	623	3162	5.08	84.23
UR Main Sts.	0	0	0	0	-	-
UR Corr/Nodes	214	739	15877	2212	0.14	35.64
UR Neigh. 1	199	536	4262	1245	0.29	13.30
UR Neigh. 2	1135	6765	39529	11944	0.30	11.52
UR Emp. Area	27	83	396	1381	3.49	19.78
UR Indust. Sanct.	0	0	0	0	-	-
UR Greensp.	209	374	111	0	0.00	0.38
Totals	99814	58567	798699	1091194		

TABLE 6 - Households and Employees By Zoning Type on Net Acres

1992: EXISTING HH/EMP ON DEV. ACRES

ZONING	DEV. AC.	HH	EMP	J/H RATIO	PERS. /AC.
Farm Forest	1309	7	0	0	0.01
Rural or Future Urban	2264	1596	1	0.00	1.77
Single Family 1	1150	1759	514	0.29	4.29
Single Family 2	26755	72418	19123	0.26	7.52
Single Family 3	41459	186000	37044	0.20	12.17
Multi-family 1	10464	120517	8378	0.07	29.74
Mutli-family 2	1681	43414	1760	0.04	65.96
Planned Unit Dev.	2001	720	150	0.21	0.98
Commercial Neighborhood	2399	0	14808	-	6.17
Commercial General	4082	0	116438	-	28.52
Central Commercial	1720	462	209677	453.85	122.58
Office Commercial	923	5374	67740	12.61	88.02
Light Industrial	4152	0	86817	-	20.91
Heavy Industrial	6122	11	107805	9800 45	17.61
Mixed Use Industrial	1685	6962	29219	4.20	27.72
Parks and Open Space	1114	0	0	-	0.00
Public Facilities	2379	0	33648	-	14.14
Mixed Use Center 1	922	0	0	-	0.00
Mixed Use Center 2	667	0	0	-	0.00
Mixed Use Center 3	373	0	0	-	0.00
Mixed Use Employ. Area	1381	0	0	-	0.00
Industrial Area	4290	7	0	0.00	0.00
Totals	119290	439247	733122		

2040: PREFERRED ALTERNATIVE NEW GROWTH ON VACANT AND REDEVELOPED ACRES

ZONING	VAC. AC.	REDEV. AC.	HH	EMP	J/H RATIO	PERS./AC.
Farm Forest	5046	417	0	0	-	0.00
Rural or Future Urban	0	0	0	0	-	-
Single Family 1	0	0	0	0	-	-
Single Family 2	10793	1516	70872	21094	0.30	13.23
Single Family 3	8269	1318	73003	21905	0.30	17.51
Multi-family 1	1601	706	49275	6589	0.13	45.57
Mutli-family 2	77	99	6526	1004	0.15	80.01
Planned Unit Dev.	4134	1502	78501	32192	0.41	33.57
Commercial Neighborhood	2764	1557	32096	69922	2.18	31.04
Commercial General	0	0	0	0	-	-
Central Commercial	0	0	0	0	-	-
Office Commercial	0	0	0	0	-	-
Light Industrial	0	0	0	0	-	-
Heavy Industrial	0	0	0	0	-	-
Mixed Use Industrial	469	137	3373	6339	1.88	21.62
Parks and Open Space	511	191	0	0	-	0.00
Public Facilities	515	1246	0	16765	-	9.52
Mixed Use Center 1	834	773	23888	45918	1.92	58.28
Mixed Use Center 2	310	549	17540	73563	4.19	126.55
Mixed Use Center 3	115	311	19756	121523	6.15	378.48
Mixed Use Employ Area	3477	1078	21153	65057	3.08	23.57
Industrial Area	5389	3237	0	65698	-	7.62
Totals	44303	14635	395983	547569		

1992: COMP PLAN BUILD OUT WITHIN EXISTING UGB

ZONING	TOT NET. AC.	HH	EMP	J/H RATIO	PERS. /AC.
Farm Forest	5397	68	16	0.24	0.03
Rural or Future Urban	3388	2167	521	0.24	1.58
Single Family 1	1720	3261	872	0.27	4.72
Single Family 2	35421	110113	29437	0.27	7.74
Single Family 3	48786	222416	59789	0.27	11.36
Multi-family 1	14614	183550	24978	0.14	29.63
Mutli-family 2	2125	50165	7183	0.14	55.86
Planned Unit Dev.	74	759	159	0.21	24.83
Commercial Neighborhood	624	914	13959	15.27	25.62
Commercial General	6200	2282	126516	55.44	21.22
Central Commercial	2695	778	242507	311.71	90.62
Office Commercial	1811	14443	111517	7.72	79.30
Light Industrial	11045	724	155271	214.46	14.20
Heavy Industrial	14028	185	173191	936.17	12.37
Mixed Use Industrial	3364	14131	42797	3.03	22.06
Parks and Open Space	11411	728	1125	1 55	0.24
Public Facilities	3480	12	45180	3765.03	12.99
Mixed Use Center 1	0	0	0	-	-
Mixed Use Center 2	0	0	0	-	-
Mixed Use Center 3	0	0	0	-	-
Mixed Use Employ. Area	0	0	0	-	-
Industrial Area	300	8	1519	189 91	5.12
Totals	166485	606704	1036538		

2040: END STATE - TOTAL GROWTH ON ALL DEVELOPABLE ACRES

ZONING	DEV. AC	AVAIL. AC.	HH	EMP	J/H RATIO	PERS./AC.
Farm Forest	205	5463	1	0	0.00	0.00
Rural or Future Urban	2264	0	1083	1	0.00	1.06
Single Family 1	1150	0	1643	476	0.29	3.59
Single Family 2	24688	12309	138271	38865	0.28	9.36
Single Family 3	39746	9587	250623	57251	0.23	12.45
Multi-family 1	9562	2307	155749	14317	0.09	30.38
Mutli-family 2	1560	176	44720	2570	0.06	58.76
Planned Unit Dev.	63	5635	79180	32335	0.41	36.56
Commercial Neighborhood	461	4320	32096	83058	2.59	32.29
Commercial General	4082	0	0	93341	-	22.87
Central Commercial	1720	0	322	159544	495.48	93.17
Office Commercial	923	0	4267	54698	12.82	69.54
Light Industrial	4152	0	0	60508	-	14.57
Heavy Industrial	6122	0	9	66412	7379.11	10.85
Mixed Use Industrial	1514	605	8498	28026	3.30	22.14
Parks and Open Space	801	701	0	0	-	0.00
Public Facilities	820	1761	0	28029	-	10.86
Mixed Use Center 1	0	1608	23888	45918	1.92	61.59
Mixed Use Center 2	0	859	17540	73563	4.19	131.10
Mixed Use Center 3	0	425	19756	121523	6.15	388.84
Mixed Use Employ. Area	0	4556	21153	65057	3.08	24.60
Industrial Area	182	8626	7	65698	9385.44	7.46
Totals	100015	58938	798806	1091190		

TABLE 7 - Jurisdiction Households and Employees

	Existing			1992 to 2040			Total in 2040		
Jurisdiction	92 HH	92 Pop*	92 EMP	New HH	New Pop*	New EMP	Tot HH	Tot Pop*	Tot EMP
Beaverton	22089	58785	46178	13183	19623	11228	35271	78408	57406
Cornelius	2472	6425	2563	2306	4196	2492	4778	10621	5055
Durham	417	800	763	217	611	195	635	1411	958
Fairview	1208	2975	1476	5379	11669	6753	6587	14644	8229
Forest Grove	5500	14010	5791	3945	6986	4889	9445	20996	10680
Gladstone	3680	10930	3181	1006	363	517	4686	11293	3698
Gresham	27518	72210	28390	26691	48297	37572	54209	120507	65962
Happy Valley	745	1910	346	2599	5523	1197	3344	7433	1543
Hillsboro	12648	40425	25104	21069	34528	36828	33717	74953	61932
Johnson City	567	1260	538	2	4	1	569	1265	539
King City	450	2065	1256	213	256	158	663	2321	1414
Lake Oswego	13126	31545	15565	6115	11227	4407	19241	42772	19971
Maywood Park	221	491	46	13	30	4	234	521	50
Milwaukie	8190	19450	11150	2494	4300	2137	10684	23750	13287
Oregon City	6832	16760	17370	5780	11278	4348	12613	28038	21718
Portland	210154	459300	420583	57954	136703	101029	268108	596003	521611
Rivergrove	140	295	36	55	138	17	195	433	53
Sherwood	1385	3635	2622	6574	14059	5765	7960	17694	8387
Tigard	12053	31350	29442	10327	18401	11489	22380	49751	40931
Troutdale	3048	8790	5539	6789	13079	8461	9837	21869	14000
Tualatin	6777	16300	13075	5864	11801	11634	12641	28101	24710
West Linn	6342	17160	2570	3371	4432	2338	9713	21592	4908
Wilsonville	4165	8755	12491	6762	15535	12220	10927	24290	24712
Wood Village	1300	2920	790	868	1900	1029	2168	4820	1820
Clack. Co. unincorp. **	33679	80830	45010	58273	123579	35038	91952	204410	80048
Multn. Co. unincorp.**	1859	4461	2935	14884	32758	7072	16743	37219	10007
Wash. Co. unincorp.**	56254	135010	41277	96828	205292	49254	153082	340302	90531
Urban Total	442819	1048849	736089	359563	736569	358072	802382	1785418	1094161

County Totals**	92 HH	92 Pop*	92 EMP	New HH	New Pop*	New EMP	Tot HH	Tot Pop*	Tot EMP
Clack. Co.	77566	183659	105920	86268	180544	61565	163834	364203	167486
Multn. Co.	245913	582266	460474	112577	214657	161589	358490	796924	622063
Wash. Co.	119341	282572	169695	160717	339997	134918	280058	622569	304613
Urban Total	442819	1048497	736089	359563	735199	358072	802382	1783696	1094161

* Population: These numbers are generated secondarily, Region 2040 modeling uses households rather than population.
- 1992 Pop is census data for cities (PSU Pop Center); county unincorporated areas are estimates using 2.4 persons/household.
- New Pop is 2040 Total Pop minus 1992 Pop
- The 2040 Total Population is derived from households, using 2.223 persons/household

** County Totals for areas inside Urban Reserves and UGB, and do not include the full extent of the counties.

TABLE 8 - Net Densities by Design Type

EXISTING DEVELOPMENT IN 1992

DESIGN TYPE	DEV. ACRES	HH	DU PER ACRE	EMP	EMP PER ACRE	RATIO HH/EMP
Central City	1096.8	8143	7.4	146073	133.2	0.1
Reg. Centers	1661.0	5391	3.2	28416	17.1	0.2
Town Centers	1684.8	6574	3.9	28168	16.7	0.2
Main Streets	2632.3	15168	5.8	47410	18.0	0.3
Corridors/Nodes	30058.8	145787	4.9	215662	7.2	0.7
Neighborhood 1	44853.0	192932	4.3	82565	1.8	2.3
Neighborhood 2	13198.3	43365	3.3	19972	1.5	2.2
Employment Areas	4459.0	3665	0.8	52152	11.7	0.1
Indust. Sanct.	10023.5	2171	0.2	87152	8.7	0.0
Greenspaces	6222.5	14437	2.3	24156	3.9	0.6
UR Town Centers	407.5	302	0.7	28	0.1	10.8
UR Main Sts.	35.8	10	0.3	775	21.7	0.0
UR Corr/Nodes	0.0	0	-	0	-	-
UR Neigh. 1	253.3	122	0.5	30	0.1	4.1
UR Neigh. 2	217.0	194	0.9	0	0.0	-
UR Emp. Area	2471.3	975	0.4	220	0.1	4.4
UR Indust. Sanct.	45.3	11	0.2	343	7.6	0.0
UR Greensp.	0.0	0	-	0	-	-
TOTALS	112245.0	439247		733122		

NEW DEVELOPMENT 1992-2040

DESIGN TYPE	AVAIL. ACRES*	HH	DU PER ACRE	EMP	EMP PER ACRE	RATIO HH/EMP
Central City	436.2	19756	45.3	121523	278.6	0.2
Reg. Centers	601.5	11914	19.8	50133	83.3	0.2
Town Centers	831.0	12899	15.5	34171	41.1	0.4
Main Streets	538.5	7927	14.7	17605	32.7	0.5
Corridors/Nodes	9386.3	113348	12.1	101942	10.9	1.1
Neighborhood 1	9689.7	79000	8.2	39969	4.1	2.0
Neighborhood 2	9904.3	67715	6.8	27668	2.8	2.4
Employment Areas	4630.5	20284	4.4	64312	13.9	0.3
Indust. Sanct.	9307.7	3373	0.4	71155	7.6	0.0
Greenspaces	5089.0	0	0.0	2	0.0	0.0
UR Town Centers	30.3	620	20.4	2598	85.7	0.2
UR Main Sts.	0.0	0	0.0	0	-	-
UR Corr/Nodes	739.2	15700	21.2	2195	3.0	7.2
UR Neigh. 1	535.7	4079	7.6	1245	2.3	3.3
UR Neigh. 2	6764.5	38989	5.8	11873	1.8	3.3
UR Emp. Area	82.8	385	4.6	1183	14.3	0.3
UR Indust. Sanct.	0.0	0	0.0	0	-	-
UR Greensp.	374.2	0	0.0	0	0.0	-
TOTALS	58567.2	395987		547573		

* AVAIL. ACRES = Vacant and Redevelopable Acres

DU= dwelling units

TABLE 9 - Net Densities by Zoning

EXISTING DEVELOPMENT IN 1992

ZONING	DEV. ACRES*	HH	DU PER ACRES	EMP	EMP PER GRS. AC.	RATIO HH/EMP
Farm Forest	1308.5	7	0.0	0	0.0	-
Rural or Future Urban	2264.0	1596	0.7	1	0.0	1596.0
Single Family 1	1150.0	1759	1.5	514	0.4	3.4
Single Family 2	26754.8	72418	2.7	19123	0.7	3.8
Single Family 3	41458.8	186000	4.5	37044	0.9	5.0
Multi-family 1	10463.8	120517	11.5	8378	0.8	14.4
Mutli-family 2	1680.8	43414	25.8	1760	1.0	24.7
Planned Unit Dev.	2001.3	720	0.4	150	0.1	4.8
Commercial Neighborhood	2399.3	0	0.0	14808	6.2	0.0
Commercial General	4082.0	0	0.0	116438	28.5	0.0
Central Commercial	1720.0	462	0.3	209677	121.9	0.0
Office Commercial	923.0	5374	5.8	67740	73.4	0.1
Light Industrial	4152.0	0	0.0	86817	20.9	0.0
Heavy Industrial	6122.0	11	0.0	107805	17.6	0.0
Mixed Use Industrial	1685.3	6962	4.1	29219	17.3	0.2
Parks and Open Space	1114.0	0	0.0	0	0.0	-
Public Facilities	2379.0	0	0.0	33648	14.1	0.0
Mixed Use Center 1	922.3	0	0.0	0	0.0	-
Mixed Use Center 2	666.5	0	0.0	0	0.0	-
Mixed Use Center 3	372.8	0	0.0	0	0.0	-
Mixed Use Employ. Area	1380.5	0	0.0	0	0.0	-
Industrial Area	4289.5	7	0.0	0	0.0	-
TOTALS	119289.8	439247		733122		

NEW DEVELOPMENT 1992-2040

ZONING	AVAIL. ACRES*	HH	DU PER ACRE	EMP	EMP PER ACRE	RATIO HH/EMP
Farm Forest	5463.0	0	0.0	0	0.0	-
Rural or Future Urban	0.0	0	-	0	-	-
Single Family 1	0.0	0	-	0	-	-
Single Family 2	12309.1	70872	5.8	21094	1.7	3.4
Single Family 3	9586.7	73003	7.6	21905	2.3	3.3
Multi-family 1	2307.0	49275	21.4	6589	2.9	7.5
Mutli-family 2	175.7	6526	37.1	1004	5.7	6.5
Planned Unit Dev.	5635.5	78501	13.9	32192	5.7	2.4
Commercial Neighborhood	4320.2	32096	7.4	69922	16.2	0.5
Commercial General	0.0	0	-	0	-	-
Central Commercial	0.0	0	-	0	-	-
Office Commercial	0.0	0	-	0	-	-
Light Industrial	0.0	0	-	0	-	-
Heavy Industrial	0.0	0	-	0	-	-
Mixed Use Industrial	605.3	3373	5.6	6339	10.5	0.5
Parks and Open Space	701.3	0	0.0	0	0.0	-
Public Facilities	1760.9	0	0.0	16765	9.5	0.0
Mixed Use Center 1	1607.7	23888	14.9	45918	28.6	0.5
Mixed Use Center 2	858.5	17540	20.4	73563	85.7	0.2
Mixed Use Center 3	425.5	19756	46.4	121523	285.6	0.2
Mixed Use Employ. Area	4555.5	21153	4.6	65057	14.3	0.3
Industrial Area	8625.8	0	0.0	65698	7.6	0.0
TOTALS	58937.6	395983		547569		

* AVAIL. ACRES = Vacant and Redevelopable Acres

DU= dwelling units

TABLE 10 - Jobs Housing Balance

JOBS HOUSING BALANCE BY TOWN CENTERS AND REGIONAL CENTERS IN RECOMMENDED ALTERNATIVE

	1992 EXISTING				2040 - TOTAL			
TOWN CENTERS	JOBS	HOUSING	J/H RATIO	INDEXED*	JOBS	HOUSING	J/H RATIO	INDEXED*
AIRPORT	21782	5806	3.75	2.09	27086	9162	2.96	1.58
ALOHA	7681	14594	0.53	-1.14	13154	27818	0.47	-0.90
BEAVERTON	38803	18622	2.08	0.42	47638	25978	1.83	0.46
BETHANY	1322	2002	0.66	-1.00	5864	11028	0.53	-0.84
CEDAR MILL	9898	6990	1.42	-0.25	16893	19586	0.86	-0.51
CLACKAMAS	31629	13891	2.28	0.62	49625	25987	1.91	0.53
DAMASCUS	1224	1670	0.73	-0.93	8445	22527	0.37	-1.00
FOREST GROVE	8409	8077	1.04	-0.62	18234	21079	0.87	-0.51
GATEWAY	31787	23746	1.34	-0.32	37112	31586	1.17	-0.20
GRESHAM	16248	15249	1.07	-0.60	44297	37048	1.20	-0.18
HAPPY VALLEY	841	2945	0.29	-1.38	3347	8823	0.38	-1.00
HAWTHORNE	28653	29580	0.97	-0.69	26428	31639	0.84	-0.54
HILLSBORO	16518	11353	1.45	-0.21	23007	20214	1.14	-0.24
HILLSDALE	18899	18196	1.04	-0.62	19548	22559	0.87	-0.51
HOLLYWOOD	25610	29680	0.86	-0.80	24710	30904	0.80	-0.58
KING CITY	4332	7443	0.58	-1.08	7141	13919	0.51	-0.86
LAKE GROVE	21207	9611	2.21	0.54	26710	16934	1.58	0.20
LAKE OSWEGO	6047	9418	0.64	-1.02	9644	15570	0.62	-0.76
LENTS	9633	15145	0.64	-1.03	11642	18428	0.63	-0.74
MILWAUKIE	15516	13523	1.15	-0.51	17562	17242	1.02	-0.36
MURRAY HILL	3354	10008	0.34	-1.33	10534	25721	0.41	-0.97
NORTH PORTLAND	41639	26518	1.57	-0.09	46080	29746	1.55	0.17
[illegible]GON CITY	29297	26371	1.11	-0.55	40998	45566	0.90	-0.48
[illegible]NCO	8861	6246	1.42	-0.24	40655	33302	1.22	-0.15
PLEASANT VALLEY	2926	9428	0.31	-1.35	7596	23780	0.32	-1.06
PORTLAND	218362	36543	5.98	4.31	291949	56768	5.14	3.77
RALEIGH HILLS	8283	6633	1.25	-0.41	9283	10566	0.88	-0.50
ROCKWOOD	13486	15761	0.86	-0.81	24850	24987	0.99	-0.38
SHERWOOD	2580	1540	1.68	0.01	9451	10861	0.87	-0.50
ST. JOHNS	15065	5587	2.70	1.03	25599	6435	3.98	2.60
TANASBOURNE	12431	10233	1.21	-0.45	29672	30747	0.97	-0.41
TIGARD	30100	12871	2.34	0.68	40530	20657	1.96	0.59
TROUTDALE	9436	5909	1.60	-0.06	27025	19281	1.40	0.03
TUALATIN	11580	7595	1.52	-0.14	24875	15611	1.59	0.22
WILSONVILLE	12708	4202	3.02	1.36	26436	13254	1.99	0.62
Totals	736147	442986	1.66	0.00	1093620	795313	1.38	0.00

	1992 EXISTING				2040 - TOTAL			
REGIONAL CENTER	JOBS	HOUSING	J/H RATIO	INDEXED*	JOBS	HOUSING	J/H RATIO	INDEXED*
BEAVERTON/WA SQ.	170332	121768	1.40	-0.26	277781	258224	1.08	-0.30
HILLSBORO	33789	25676	1.32	-0.35	81894	74594	1.10	-0.28
GRESHAM	42098	46348	0.91	-0.75	103745	105087	0.99	-0.39
MILWAUKIE/CTC	88143	73547	1.20	-0.46	131603	138559	0.95	-0.43
PORTLAND	401800	175659	2.29	0.63	498481	218797	2.28	0.90
REGIONAL TOTAL	736162	442998	1.66	0.00	1093504	795261	1.38	0.00

*INDEXED: This is the ratio minus the regional jobs/housing ratio or balance (1.66 in 1992, 1.38 in 2040).
- A positive number is a jobs rich area, a negative number is households rich area.

NOTE: See map next page for location of Town Center and Regional Center market areas.

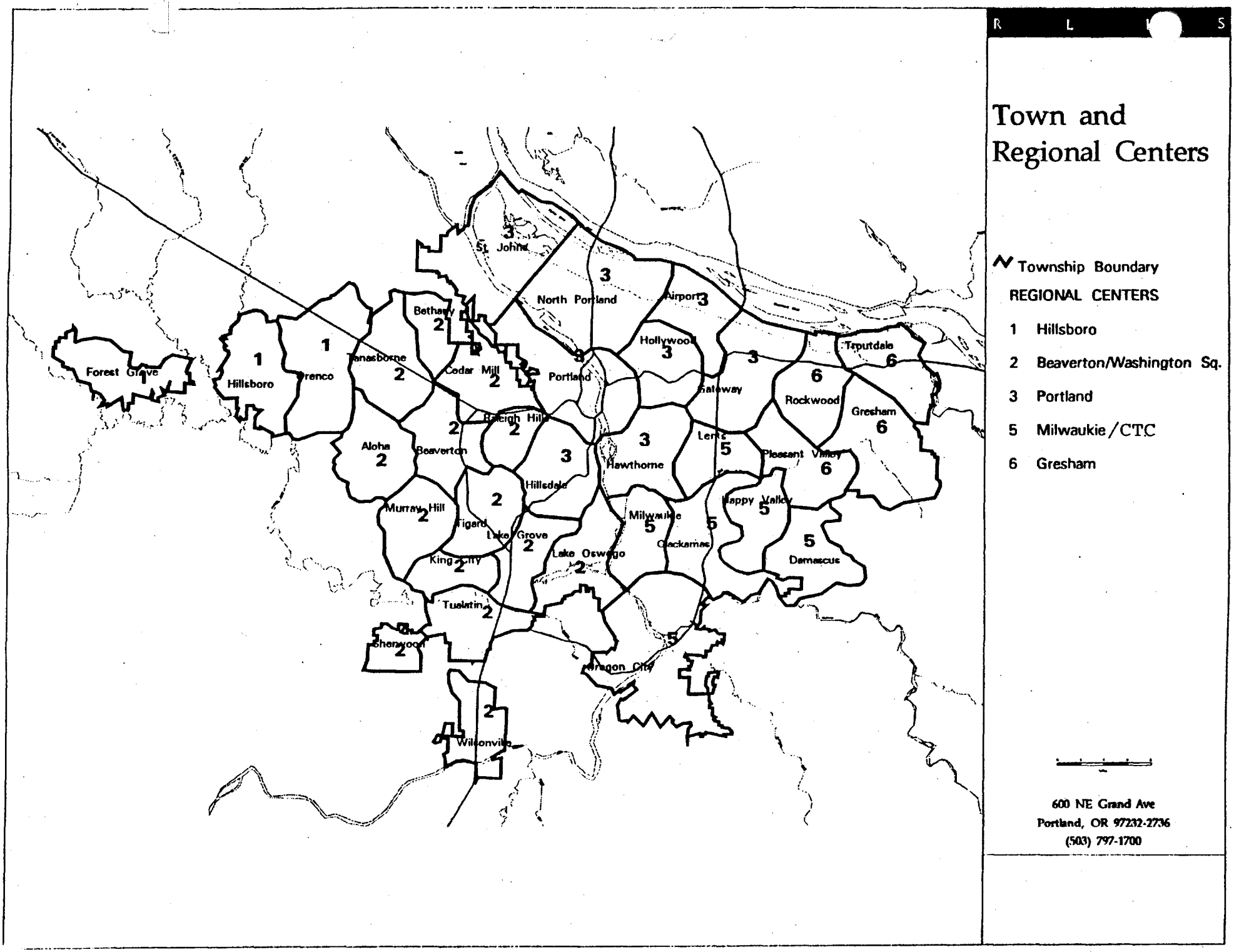

Town and
Regional Centers
Township Boundary
REGIONAL CENTERS
1 Hillsboro
2 Beaverton/Washington Sq.
3 Portland
5 Milwaukie/CTC
6 Gresham
Forest Grove
Hillsboro
Orenco
Cornelius
Bethany
Cedar Mill
St. Johns
North Portland
Portland
Airport
Hollywood
Gateway
Rockwood
Gresham
Raleigh Hill
Aloha
Beaverton
Hawthorne
Lents
Pleasant Valley
Hillsdale
Murray Hill
Tigard
Lake Grove
Milwaukie
Clackamas
Happy Valley
Damascus
King City
Lake Oswego
Tualatin
Sherwood
Wilsonville
600 NE Grand Ave
Portland, OR 97232-2736
(503) 797-1700

TABLE 11 - Residential: Single family Multi-family, and Lot Sizes

	Existing 1992	All New REC. ALT.	Vac. Land REC. ALT	Redev. Land REC. ALT.
Single Family	68.0%	61.5%	70.24%	39.59%
Multi-Family	32.0%	38.5%	29.76%	60.41%
Attached SF	0.0%	20.0%	20.3%	18.5%

SF/MF By Major Design Types	
Centers	100% MF
Corridors	35%SF / 65%MF
Main Streets	100% MF
Neighborhoods	95% SF
Employment Areas	100% SF

Average Lot Size	NEW
Neigh. 1 (SFR-3)	5720
Neigh. 2 (SFR-2)	7566
Weighted Avg.	6657

TABLE 12 - Impacts of Different Urban Reserve Expansion

DENSITY, Persons/net acre by Design Type - 1992 existing, alternatives show density for new development

SIGN TYPE	1992	REC. ALT.	NO EXPAND.	40,000 AC UR. RES.
Central City	168.01	379.59	397.20	361.89
Reg. Centers	24.56	127.51	137.40	120.90
Town Centers	26.49	75.74	84.45	58.53
Main Streets	31.98	65.52	72.96	54.98
Corridors/Nodes	19.36	37.79	43.47	30.64
Neighborhood 1	11.41	22.31	25.51	21.41
Neighborhood 2	8.62	18.04	20.44	14.25
Employment Areas	14.42	23.66	26.84	24.37
Indust. Sanct.	9.57	8.45	8.63	8.67
Greenspaces	9.35	0.00	0.00	0.00
UR Town Centers	1.92	50.34		43.92
UR Main Sts.	25.94	131.25		60.99
UR Corr/Nodes	-	-		-
UR Neigh. 1	2.05	19.30		16.67
UR Neigh. 2	1.12	14.61		11.66
UR Emp. Area	8.24	24.64		24.96
UR Indust. Sanct.	-	-		-
UR Greensp.	1.18	0.00		-

LOT SIZE CHANGES	1990 PLANS Range	REC. ALT. Average	NO EXPAND. Average	40,000 AC UR. RES. Average
SFR-3 (Neigh. 1)	5,000-7,000	5720	5259	6755
SFR-2 (Neigh. 2)	7,000-10,000	7566	6907	9457
SFR3/SFR2	47% / 53%	51% / 49%	68% / 32%	35% / 65%
% Attached SF	N/A	20.00%	26.98%	8.83%

Transportation Data

Selected Performance Measures

Additional Evaluation Measures

Roadway Network Update

September 2, 1994

TO: John Fregonese

FROM: Cindy L. Pederson

RE: Region 2040 Preferred Alternative

Attached are the Total Region and Intra-UGB Performance Measures reports which include the results from the Preferred Alternative model run.

Please keep in mind that in addition to landuse revisions, the following have also changed:

Highway Network	- used Concept C as a base with edits as per Tom Kloster's memos
Transit Network	- (completely revised) based on the 2015 South/North system with revisions as per Martin Hull of Tri-Met
Parking Factors	- based on Concept B -- see attached
PEFs	- based on Concept B -- see attached

If you have any questions, please feel free to contact me at x1772.

CC: Bill Barber
Richard Brandman
Andy Cotugno
Scott Higgins
Mike Hoglund
Jennifer John
Tom Kloster
Keith Lawton
Rich Ledbetter
Leon Skiles
Stuart Todd
Mark Turpel
Dick Walker

Region 2040 - Concept Runs WITH Parking Factors and Revised PEFs
(includes network revisions and resulting redistribution of trips)

TOTAL REGION

Selected Performance Measures

1-Sep-94

	1990	2040 Concept A	2040 Concept B	2040 Concept C	2040 Preferred Alt
Landuse Data					
Population	1,511,237	2,674,355	2,674,355	2,674,355	2,674,355
Households	585,075	1,166,656	1,166,656	1,166,311	1,166,638
Employment	867,812	1,634,507	1,634,823	1,633,734	1,634,813
Trip Data					
Total Person Trips	6,264,314	11,564,323	11,533,237	11,542,950	11,518,039
Walk Bike Number of Total Trips	299,779	567,295	629,898	589,965	608,324
Walk Bike as % of Total Trips	4.79%	4.91%	5.46%	5.11%	5.28%
Person Trips per Household	10.71	9.91	9.89	9.90	9.87
Person Trips per Capita	4.15	4.32	4.31	4.32	4.31
Home Based Work Occupancy	1.103	1.103	1.113	1.110	1.117
Transit Data					
Transit Riders	136,821	372,390	527,758	437,178	570,007
as % of Total Person Trips	2.18%	3.22%	4.58%	3.79%	4.95%
Home-Based Work Transit Riders	64,517	200,860	299,054	245,837	335,614
as % of Total HBW Person Trips	5.41%	8.95%	13.32%	10.96%	14.95%
% households covered by transit	55.12%	44.93%	53.09%	51.14%	57.38%
% employment covered by transit	76.72%	75.96%	78.58%	74.65%	77.86%
Total Transit Service (Hours)	4,983	12,322	13,192	12,553	11,966
Trip Length Data					
AWD VMT					
with Comm & Ext	26,708,898	47,973,269	44,737,495	46,910,375	46,139,880
without Comm & Ext	20,445,781	36,135,146	33,027,691	35,093,168	34,211,048
AWDVMT per Capita					
with Comm & Ext	17.67	17.94	16.73	17.54	17.25
without Comm & Ext	13.53	13.51	12.35	13.12	12.79
AWD Average Trip Length (miles)					
with Comm & Ext	5.25	5.20	4.97	5.14	5.15
without Comm & Ext	4.43	4.32	4.06	4.25	4.22
Network Data					
PM 1-hr Average Speed (mph)	33	26	27	29	29
PM 1-hr Average Travel Time (mins)	10.87	13.30	12.46	11.85	12.08
Lane Miles **	9,279	10,190	9,820	10,327	10,483
Congested Roadway Miles*	162.47	817.18	783.95	568.13	620.49
as a % of total	2.45%	11.91%	11.57%	8.29%	8.89%

* Roadway miles with v/c > .9 for the PM 1-hr period
** miles for freeways and arterials regionwide

Region 2040 - Concept Runs WITH Parking Factors and Revised PEFs
(Includes network revisions and resulting redistribution of trips)

INTRA-UGB

Selected Performance Measures

1-Sep-94

	1990	2040 Concept A	2040 Concept B	2040 Concept C	2040 Preferred Alternative
Landuse Data (within UGB)					
Population	1,032,471	1,943,895	1,904,799	1,678,720	1,862,182
Households	410,853	839,333	822,452	724,836	804,051
Employment	723,982	1,305,193	1,293,427	1,169,913	1,257,365
Trip Data (Intra-UGB Trips Only)					
Total Person Trips	4,484,900	8,371,842	8,161,761	7,188,750	8,073,210
Walk Bike Number of Total Trips	231,830	432,601	486,392	404,698	463,314
Walk Bike as % of Total Trips	5.17%	5.17%	5.96%	5.63%	5.74%
Person Trips per Household	10.92	9.97	9.92	9.92	10.04
Person Trips per Capita	4.34	4.31	4.28	4.28	4.34
Transit Data (Intra-UGB Trips Only)					
Transit Riders	124,770	338,323	487,642	372,047	509,120
as % of Total Person Trips	2.78%	4.04%	5.97%	5.18%	6.31%
Home-Based Work Transit Riders	58,080	183,763	277,462	211,763	301,043
as % of Total HBW Person Trips	6.87%	11.11%	17.15%	14.83%	19.06%
% households covered by transit	64.75%	48.71%	61.19%	58.10%	63.16%
% employment covered by transit	81.55%	82.50%	86.47%	83.00%	82.61%
Trip Length Data (Intra-UGB Trips Only)					
AWD VMT without Comm & Ext	12,802,346	24,262,884	20,693,270	20,010,741	21,896,980
AWDVMT per Capita without Comm & Ext	12.40	12.48	10.86	11.92	11.76
AWD Average Trip Length (miles) without Comm & Ext	3.89	4.05	3.66	3.96	3.93
Network Data (within UGB)					
PM 1-hr Average Speed (mph)	30	24	24	27	26
PM 1-hr Average Travel Time (mins)	9.64	12.55	11.41	10.84	12.22
Lane Miles **	5,304	6,377	5,557	6,116	6,038
Congested Roadway Miles*	150.49	682.04	642.65	403.94	454.05
as a % of total	5.18%	19.16%	21.29%	12.22%	13.88%

* Roadway miles with v/c > .9 for the PM 1-hr period
** miles for freeways and arterials

Region 2040 - Air Quality Analysis

2-Sep-94

(in kg/day)

Region-wide emissions - Including Columbia, Yamhill and Marion Counties

	Winter CO	Summer CO	Summer HC	Summer NOx
1990	881,365	608,182	188,618	86,096
2040 BCFRWY	650,950	559,844	75,118	100,434
2040 A	656,258	561,689	75,046	97,578
2040 A w/pkg factors	649,822	556,196	74,426	97,376
2040 B	640,164	547,752	73,201	92,209
2040 B w/pkg factors	615,772	527,002	70,985	90,182
2040 C	631,703	540,721	72,991	95,974
2040 C w/pkg factors	616,801	528,045	71,576	94,627
2040 Preferred Alt	614,930	526,385	71,191	93,205

Region-wide emissions - NOT including Columbia, Yamhill and Marion Counties

	Winter CO	Summer CO	Summer HC	Summer NOx
1990	835,115	574,708	177,857	80,452
2040 BCFRWY	614,451	528,601	70,700	94,024
2040 A	618,887	529,702	70,547	91,102
2040 A w/pkg factors	613,537	525,133	69,810	90,987
2040 B	603,276	516,177	68,739	85,737
2040 B w/pkg factors	579,579	496,017	66,375	83,817
2040 C	584,414	500,215	67,187	88,356
2040 C w/pkg factors	569,091	487,188	65,745	86,988
2040 Preferred Alt	574,749	491,995	66,391	86,230

Region 2040 - Parking Factor Guidelines

13-Sep-94

WORK Purpose

	CBD Center	Regional Center	Sub-Regional Center	Residential Center	Main Streets	Ten Minute Corridors	Other High Density Den >= 10 Min Corr	Other Low Density (Den < 10 Min Corr)
Base Case								
1985 dollars	$4.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1993 dollars	$5.81	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Concept A	(Base + 13%)	(33% of CBD)	(13% of CBD)	(10% of CBD)	(5.5% of CBD)	(4.5% of CBD)		
1985 dollars	$4.88	$1.61	$0.63	$0.49	$0.27	$0.22	$0.22	$0.15
1993 dollars	$6.56	$2.16	$0.85	$0.66	$0.36	$0.30	$0.30	$0.20
Concept B	(Base + 38%)	(33% of CBD)	(13% of CBD)	(8% of CBD)	(8% of CBD)	(6% of CBD)		
1985 dollars	$5.96	$1.97	$0.78	$0.48	$0.48	$0.36	$0.36	$0.15
1993 dollars	$8.01	$2.64	$1.04	$0.64	$0.64	$0.48	$0.48	$0.20
Concept C	(Base + 13%)	(78% of CBD)	(33% of CBD)	(11% of CBD)	(5% of CBD)	(4% of CBD)		
1985 dollars	$4.88	$3.81	$1.61	$0.54	$0.24	$0.20	$0.20	$0.15
1993 dollars	$6.56	$5.12	$2.16	$0.72	$0.33	$0.26	$0.27	$0.20

	Central City (CC)	Regional Center	Town Center	Main Streets	Mixed Use & Commercial Nodes	Indust. Sanct. & Neighborhoods I & 2
Preferred Alternative	(CBD Concept B)	(25% of CC)	(18.5% of CC)	(15.5% of CC)	(8.8% of CC)	
1985 dollars	$5.96	$1.49	$1.10	$0.92	$0.52	$0.15
1993 dollars	$8.01	$2.00	$1.48	$1.24	$0.70	$0.20

Notes:

1. Cost increases reflect the relative changes in employment density between concepts and locations
2. A dollar equivalent ($0.20 in 1993 dollars) has been included in the factor to reflect the implementation of the ECO and Parking Ratio Rules.
3. For the non-work purposes, the factor in the "Other Low Density" location is removed. The factors in all other areas are reduced by approximately 55% to reflect a shorter duration (i.e. a smaller parking cost) and the removal of the ECO Rule.

Region 2040 - Pedestrian Environmental Factor Guidelines

24-Aug-94

Pedestrian Environmental Factor Guidelines for Concepts A, B, C

	CBD Center	Regional Center	Sub-Regional Center	Residential Center	Main Streets	Ten Minute Corridors	Other High Density (Den >= 10 Min Corr)	Other Low Density (Den < 10 Min Corr)
Ease of Street Crossing	3	3	3	3	3	2-3	1-3	1-3
Street Pattern	3	3	2-3	2-3	2-3	2-3	1-3	1-3
Sidewalk Availability	3	3	3	3	3	2-3	1-3	1-3
Topography Value (TV)								
Total Range Value	9 + TV	9 + TV	8-9 + TV	8-9 + TV	8-9 + TV	6-9 + TV	3-9 + TV	3-9 + TV

Region 2040 Preferred Alternative Methodology

	Central City	Regional Center	Town Center	Main Streets	Commercial Nodes	Mixed Use Employment Area	Neighborhood 1	Indust. Sanct. & Neighborhood 2
MINIMUM Total Value	10	10	10	10	9	8	8	4

Note:

Rating of 1 is poor, 2 is average, 3 is good.

September 12, 1994

TO: John Fregonese

FROM: Cindy L. Pederson

RE: Additional Preferred Alternative Evaluation Measures

To better understand and quantify the effects of different model inputs on final results, we performed some additional evaluation measures. We thought that you would be interested in the following summaries:

1) In order to get an idea of the influence of **parking factors** on mode split results, the Mode Split Model was rerun using all of the Preferred Alternative inputs EXCEPT for parking factors (for which the Base Case parking factors were substituted). The Base Case only had parking factors for the CBD, Lloyd Center and OHSU, while the Preferred Alternative parking factors were spaced throughout the tri-county region.

Results:

	HBW Transit Trips
Preferred Alternative Model Run	335,614
Pref. Alt. w/ Base Case Parking Factors	196,121

139,493 fewer HBW transit trips (42% less)

	Total Transit Trips
Preferred Alternative Model Run	570,007
Pref. Alt. w/ Base Case Parking Factors	409,704

160,303 fewer total transit trips (28% less)

This illustrates how much of an effect parking factors alone have on transit ridership.

However, when comparing the Preferred Alternative using Base Case parking factors with the Base Case Model Run, the results do indicate that landuse design (in conjunction with highway and transit design) does affect transit ridership as well:

	Total Transit Trips
Pref. Alt. w/ Base Case Parking Factors	409,704
Base Case Model Run	266,920

142,784 more total transit trips (35% more)

2) We also thought it would be interesting to compute a weighted average parking factor for each 2040 model run. In essence, this would provide the average parking "cost" per trip. This value was obtained for both HBW and HBO trips by taking the sum of (total attractions in each zone times the parking factor for that zone) and then dividing that sum by the total region-wide attractions:

Long-Term

Weighted Avg Parking "Cost" per trip = $\frac{\text{sum(HBW attractions per zone * long-term pkg factor for that zone)}}{\text{Total HBW attractions}}$

Short-Term

Weighted Avg Parking "Cost" per trip = $\frac{\text{sum(HBO attractions per zone * short-term pkg factor for that zone)}}{\text{Total HBO attractions}}$

Results:

Model Run	Long-Term Avg	Short-Term Avg
1990*	$0.46	$0.08
Base Case - Freeway*	$0.41	$0.07
Concept A	$0.78	$0.19
Concept B	$1.15	$0.30
Concept C	$1.00	$0.30
Preferred Alternative	$1.35	$0.38

These results show that the Preferred Alternative has the overall highest average parking factor of all the alternatives.

3) Similarly, we calculated a weighted PEF value for each model run by taking the sum of (productions in each zone times the PEF value for that zone) and then dividing that sum by the total productions:

Weighted Avg PEF value = $\frac{\text{sum(productions per zone * PEF value for that zone)}}{\text{total productions}}$

Results:

Model Run	Weighted PEF Value
1990*	6.91
Base Case - Freeway*	6.18
Concept A	6.67
Concept B	6.99
Concept C	6.86
Preferred Alternative	7.99

* runs that did not have revised parking factors or PEFs

These numbers also reveal that the Preferred Alternative has the highest PEF values.

If you have any questions or need any further information, please feel free to contact me at x1772.

CC: Bill Barber
Richard Brandman
Andy Cotugno
Scott Higgins
Mike Hoglund
Jennifer John
Tom Kloster
Keith Lawton
Rich Ledbetter
Leon Skiles
Stuart Todd
Mark Turpel
Dick Walker

METRO

August 18, 1994

To: Dick Walker

From: Tom Kloster

Subject: Roadway Network for Region 2040 Preferred Alternative - First Draft

The following is an updated listing of projects for modeling the Region 2040 Preferred Alternative roadway network, reflecting the changes detailed in my August 17th memo to you. Each project may include new links, improvements to a combination of several existing links, or both. Capacity indicates the new one-way capacity of the links affected by a given proejct.

* * * * * * *

REGION 2040
PREFERRED ALTERNATIVE

WASHINGTON COUNTY GROUP

No.	Description	Capacity
1	Extension of Bethany Blvd north from West Union to Kaiser Road	700
2	New link from NW 174th across West Union to Laidlaw at Kaiser Rd.	700
3	Add capacity to West Union/Thompson from Jacobson to Saltzman	1200
4	Realign NW Kaiser Rd. to meet 143rd; add capacity north to Laidlaw	900
5	Add new freeway crossing connecting NW 173rd/174th	700
6	Extend Evergreen Parkway to meet Cornell Road	1800
7	Add capacity to 143rd/Cornell from NW Burton to NW 97th	1800
8	New link from NW 119th/Cornell to NW Barnes	900
9	NW 112th extension to Cedar Hills; add capacity north to Cornell	1200
10	Connect Evergreen Rd. to Glencoe; add capacity west from Jackson School	1800
11	Realign Jackson School/Evergreen Road; add capacity north to #12	1200
12	New link from NE Jackson School Rd. to Glencoe Rd.	1200

13	Connect Glencoe and Hornecker roads	700
14	Realign Brookwood/Cornell intersection	1200
15	Extend NW Brogden to Brookwood	500
16	**Delete Western Bypass (incl. interchanges) from US 26 to Hwy 99W**	**n/a**
17	Connect 231st at Baseline to 229th at TV Highway	1200
18	Extend 229th north of Evergreen to Shute Road	1200
19	Connect 229th extension to Cornelius Pass Road	1200
20	Realign Cornell Road/Cornelius Pass Road intersection	2400
21a	Add capacity to Cornelius Pass Road from Quatama to US 26	2400
21b	Add capacity to Cornelius Pass Road from US 26 to West Union	2400
22	NW Comption extension south to SW 205th	1400
23	NW Kehrli Road/Holly Street connection; Cornelius Pass to 185th	2400
24	SW 198th/205th connection	1400
25	Add capacity to SW 206th; Rock Road to NW Kehrli	1800
26	Compton extension; Walker/Cornell intersection to Evergreen Parkway	2100
27	Johnson Street connection; 170th to 185th	700
28	New connection from Baseline/170th to Jenkins	1200
29	SW Beaverdam Road/Alexander Street connection	900
30	Blanton/160th connection from 170th to Farmington	700
31	Realign 160th/Division intersection; extend Division to 6th at Murray	500
32	Realign Davis to meet Allen at Murray	800
33	Extend Western/103rd from B-H Hwy. to Canyon	1800
34	Extend Jamieson north of B-H Hwy. to 91st at Fir Grove	700
35	Increase capacity on Jamieson south of B-H Hwy.	900
36	Extend SW 5th from Western to Jamieson	700
37	Extend Vermont, Oleson to Nicol; improve Nicol/Laurelwood to B-H	900
38	Extend NE 28th from Main to Cypress	1200

39	Increase capacity on NE 28th/25th & Cypress adjacent to project #38	1200
40	Extend SW Teal Blvd. to network from 155th to Old Scholls Ferry	700
41	Extend SW 65th from Nyberg to Childs	1800
42	Realign 99W/Tualatin intersection; extend 124th to Tualatin/Sherwood	1200
43	Extend Lower Boones Ferry to Tualatin Road at Chinook Street	900
44	Increase capacity on 170th from Hart to Farmington	900
45	Increase capacity on West Union from Helvetia to Groveland	900
46	Add capacity to 185th/Springville from West Union to PCC	900
47	Connect NW John Olson to Rock Creek Blvd. over US 26	1200
48	Increase capacity on Cornell from Stucki to John Olson	1050
49	Add capacity to Baseline from Brookwood to 219th	1200
50	Increase capacity on 185th from TV Hwy. to Farmington Road	1200
51	Increase capacity on Jenkins from Murray to Ecole	1400
52	Extend Canyon from to Barnes/Burnside; Increase Burnside capacity	900
53	Realign Scholls to meet Old Schools at SW Davies	900
54	Add capacity to Herman/Tualatin from Cipole to Boones Ferry	900
55	Extend Herman from Cipole to NE Pacific at Roy	900
56	**Restore access at intersections along 99W from Hwy 217 to Bypass**	**n/a**
57	Add capacity to 99W from Bypass interchange to Cipole Road	3500
58	Add capacity to SW 65th from Childs to Lower Boones Ferry	1800
59	Connect Bangy/Lower Boones Ferry via SW 65th/Roosevelt	1200
60	Add capacity to Bangy from Kruse to Burma	1200
61	Extend Willamina Ave. from Gales Cr. to Susbauer	900
62	Improve Cor.-Schefflin/Kerman/Dersham to US 26	1200
63	Model Susbauer Road from Hwy. 8 to Cor.-Schefflin	700
64	Add Forest Grove Bypass from Hwy. 47 Martin Road	900
65	Add capacity to Hwy. 217 from US26 to Walker	8000

66	Drop capacity on Hwy. 217 from Walker to Canyon	6750
67	Add capacity to Hwy. 217 from Canyon to I-5	6250

CLACKAMAS COUNTY GROUP

No.	Description	Capacity
1	**Add capacity to Foster Road south to Sunrise interchange**	**2100**
2	Extend Johnson Creek Boulevard to SE Idleman	700
3	New connection; Idleman to 129th/Mountain Gate; to 147th/Monner	700
4	Improve Hillcrest to connect to project #3 west of 129th	700
5	Add capacity to Monterey; cross I-205 to connect with new frontage road	1200
6a	[deleted]	
6b	Add capacity to Hwy. 43 from 212/224 crossing to Sellwood Bridge	2400
7	Improve/connect Spring Mountain/Isabels from 122nd to Foster	700
8	Realign 147th/Sunnyside intersection to 142nd	700
9	Extend Mather Road from 122nd to 142nd	700
10	Improve Giese/McKinley from Jenne to 190th	900
11	Improve Butler from Regner to Hogan Road	700
12	Extend Hagen from 172nd to Tillstrom/Bohna Park intersection	700
13	Realign Sunshine Valley/Borges to intersect at 242nd	700
14a	Improve/extend Cheldelin from 190th to Borges west of 222nd	900
14b	Improve Borges from Tillstrom to 242nd	900
15	Improve Towle from Binford to 190th/Tillstrom; realign 190th	900
16	Extend Clatsop from 162nd to Cheldelin at Foster; terminate 172nd	900
17	Extend SE King from 145th to 190th/Tillstrom	900
18	**Delete Concept C Sunrise route; add modified EIS "southern" route***	**4000**

**modified route includes access points at I-205, Rock Creek, 222nd south of Damascus and US 26; new route is in addition to Hwy. 212/224 route, which will function as a parallel route (as modelled in Concept C).*

19	82nd Avenue connection from SE Herbert to Sunnybrook	1800

20	Add capacity to Hogan from Springwater to Hwy. 212	1800
21	Improve/extend Swan Avenue from Holcomb to 82nd at Edgewater	900
22	New link from Meadowview/Redland via Highland to 82nd/Evelyn	900
23	Extend S. Holly from Redland to Swan Ave./Holcomb	900
24	Improve/connect Hilltop /Beaton from Holcomb to Clackamas River Dr.	700
25	Increase capacity on Hwy. 224	2400
26	Increase capacity on Carver Bridge	1800
27	Extend S. Morton from Division to Redland Road at Meadow View	900
28	Add capacity to Hwy. 213 south of Molalla Ave. junction	1200
29	[deleted]	
30	[deleted]	
31	[deleted]	
32	[deleted]	
33	[deleted]	
34	[deleted]	
35	[deleted]	
36	[deleted]	
37	Add capacity to Tillstrom from Foster to 242nd	1200
38	[deleted]	
39	**South Willamette Crossing at 99E/Harrison to Highway 43**	**1300**
40	Add capacity to Highway 43; S. Crossing to Sellwood Br.	2400

MULTNOMAH COUNTY GROUP

No.	Description	Capacity
1	Create full interchange on I-5 at Columbia Boulevard	n/a
2	Create new zone connection; west Airport area to NE 33rd	n/a
3	Create full interchange at 82nd/Airport Way	n/a

4	**Add capacity to Mt. Hood Parkway exit from I-84; remove most access***	2400

**Mt. Hood Parkway should be modeled with a single Gresham access point located between Powell and Burnside; other interchanges will be located at the I-84 terminus and the US26 intersection. East of the parkway interchange, US26 will have access at the Sunrise interchange and in Sandy.*

5	Re-connect Sandy Blvd. over I-84; increase capacity east of freeway	900
6	Add capacity to 181st Avenue from I-84 to Stark	2000
7	Add capacity to Binford Parkway from 190th to Towle	900
8	[deleted]	
9	Add Birdsdale Bypass route from 190th/Powell to Glisan	1200
9a	Realign 201st/Bypass/Glisan intersection	1800
9b	Terminate 201st north/south of current intersection w/ Glisan	n/a
10	Extend Binford Parkway from Towle Road to Hogan	900
11	Add capacity to Eastman/Towle from Powell to Binford Parkway	1200
12	Add capacity to Roberts/Regner from Powell to Binford extension	1200
13	Add capacity to 99E from Grand/MLK split to Milwaukie Blvd.	4500
14	Improve to full I-5 interchange at 99W/Tigard	n/a
15	Delete partial interchange at Capitol Hwy	n/a
16	Delete partial interchange at Multnomah Blvd.	n/a
17	Add full I-5 interchange at Terwilliger	n/a
18	Add capacity to Barbur Blvd. from Terwilliger to B-H Hwy. ramps	2400
19	[deleted]	
20	Improve SW Hamilton/6th Drive connection from Barbur to OHSU	700
21	Create full interchange on I-84 at 122nd Avenue	n/a
22	Remove capacity from Hwy. 30 north of Yeon	2400
23	Remove capacity on St. Helens Rd. from 23rd to Yeon	1800
24	Add capacity to Yeon from Nicolai to St. Helens Rd.	2400

cc: *Andy Cotugno*
Richard Brandman
Mike Hoglund
John Fregonese

Region 2040
JPACT Amendment Package

Amendments should be received by JPACT by October 25, 1994. Mail to: Region 2040, Metro, 600 NE Grand Avenue, Portland, OR 97232-2736 or fax to: 797-1794.

1. Name of JPACT Member Recommending Change:_____

2. Representing _____

3. Your proposed amendment would change (check one): Text/Policy only_____ Map only _____ Both _____

4. Text/Policy Changes. If you are proposing a change to language in the Recommended Alternative or the RUGGO's, please indicate your proposed text changes. (A photocopy of the text in question with changes legibly noted is fine.)

5. Map Changes. 5a. If you are proposing a change to the Concept Map, please generally describe the geographic area, the present designation and your preferred designation. (*Example: In the vicinity of 1st Street and Main Avenue, City of Maple Hill, change the designation from industrial area to employment area*).

_____

_____

_____

_____

5b. Please attach a copy of a map of the area, to scale, indicating the map change you are recommending.

Thank you.

Questions? Please call 797-1562 for further information.

COMMITTEE MEETING TITLE JPACT

DATE 10-13-94

NAME	AFFILIATION
Royce E. Pollard	VANCOUVER
BRUCE WARNER	ODOT
ROB POST	TRI-MET
Henry Smith	WSDOT
ROY ROGERS	WASHINGTON COUNTY
Jon Kvistad	Metro Council
GREG GREEN	ODEQ
David Lohman	Port of Portland
BERNIE GIUSTO	CITIES OF MULT COUNTY
ROB DRAKE	CITIES OF WASH. CO.
Craig Lommuch	cities of Clackamas Co
Rod Monroe	Metro Council
Andy Cotugno	Metro
STEVE DOTTERRER	CITY OF PORTLAND STAFF
RODSANDOZ	CLACKAMAS COUNTY
Dave Williams	ODOT
GB ARRINGTON	TRI-MET
TOM KLOSTER	METRO
Kathy Busse	Mult. Co.
Pamela Beamer Williams	Intermodal Transportation Council
Dean Lookingbill	RTC
Deb Wallace	C-TRAN
Jennifer Ball	Conkling Fiskum & McCormick
Earl Blumenauer	City of Portland

COMMITTEE MEETING TITLE JPACT

DATE 10-13-94

NAME	AFFILIATION
Peter F Fry	Central Eastside Industrial Council
JAMES BAILEY	Intermodal Transportation Counc
Tom Coffee	City of Lake Oswego
Richard Brandman	Metro
RICHARD ROSS	TPAC CITIES OF MULT CO.
Molly O'Reilly	Citizen