

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ADOPTING THE) ORDINANCE NO 97-715
REGIONAL FRAMEWORK PLAN)
) Introduced by Councilor McLain
)
)

WHEREAS, Section 5 of the 1992 Metro Charter requires the Metro Council to adopt a regional framework plan by December 31, 1997; and

WHEREAS, Section 5(2)(b) of the 1992 Metro Charter requires that: “(1) regional transportation and mass transit systems, (2) management and amendment of the urban growth boundary, (3) protection of lands outside the urban growth boundary for natural resource, future urban or other uses; (4) housing densities, (5) urban design and settlement patterns, (6) parks, open spaces and recreational facilities, (7) water sources and storage, (8) coordination, to the extent feasible, of Metro growth management and land use planning policies with those of Clark County, Washington, and (9) planning responsibilities mandated by state law. . . .” be addressed in the plan; and

WHEREAS, Section 4 of the 1992 Metro Charter states that Metro has jurisdiction over matters of metropolitan concern; and

WHEREAS, the Metro Council has adopted Resolution 96-2378 to add Natural Hazards, and Resolution 97 - ____ to add Affordable Housing, School Siting and Regional Funding, and Fiscal Policies to the matters addressed in the regional framework plan; and

WHEREAS, each regional framework plan chapter describes its relationship to the Future Vision as required by Section 5(c)(1) of the 1992 Metro Charter; and

WHEREAS, ORS 197.015(1), (16) and 197.274 were added to state law in 1993 to authorize the Land Conservation and Development Commission (LCDC) to acknowledge Metro's regional framework plan for compliance with statewide planning goals; and

WHEREAS, Section 5(e) of the 1992 Metro Charter requires Metro to adopt implementation ordinances to assure application of the regional framework plan to land use decisions of cities and counties within Metro one year after its acknowledgment by LCDC; and

WHEREAS, a May, 1997 Discussion Draft has been extensively amended based on review by the public and the Metro Policy Advisory Committee and its technical advisory committee, the Joint Policy Advisory Committee on Transportation and its technical advisory committee, the Greenspaces Technical Advisory Committee, the Water Resources Policy Advisory Committee, the Community Advisory Committee on Transportation, and the Metro Community Information Committee; and

WHEREAS, the regional framework plan has been structured to include all Regional Urban Growth Goals and Objectives (RUGGOs) and to follow Goal I of the RUGGOs by applying the policies in Chapters 1-8 to Metro and identifying requirements for changes in city and county comprehensive plans in Chapter 9 and the appendices in functional plans, now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

1. That Section 1. The Regional Framework Plan attached and incorporated herein as Exhibit "A," containing the Regional Urban Growth Goals and Objectives, and provisions addressing urban growth boundary, urban reserves, housing density, protection of agriculture and forest lands, school siting and affordable housing (Chapter 1); regional transportation and transit

(Chapter 2); parks, natural areas, open spaces and trails (Chapter 3); water quality and urban water supply (Chapter 4); regional natural hazards (Chapter 5); Clark County coordination (Chapter 6); infrastructure fiscal policies (Chapter 8); implementation policies (Chapter 9 and Appendices); and model plan provisions (Appendices) is hereby adopted.

2. Ordinance No. 95-625-A adopted by Metro Council on December 14, 1995 states "The text and map of Metro's regional goals and objectives, known together as the Regional Urban Growth Goals and Objectives (RUGGO) shall be transmitted to the Land Conservation and Development Commission for acknowledgment of compliance with statewide goals consistent with ORS 197.105(1)."

3. That the provisions of this ordinance are separate and severable. The invalidity of any clause, sentence, paragraph, section, subsection, or portion of this ordinance or the invalidity of the application thereof to any city, county, person or circumstance shall not affect the validity of the remaining provisions of this ordinance or its application to other cities, counties, persons or circumstances.

ADOPTED by the Metro Council this _____ day of _____ 1997.

Jon Kvistad, Presiding Officer

ATTEST:

Approved as to Form:

Recording Secretary

Daniel B. Cooper, General Counsel

Appendices

Appendix A: Urban Growth Management Functional Plan

**Adopted by the Metro Council by Ordinance 96-647C, November 21, 1996
As Amended by Ordinance 97-691C, September 25, 1997**

METRO CODE CHAPTER 3.07 URBAN GROWTH MANAGEMENT FUNCTIONAL PLAN

3.07.010 Purpose

The regional policies which are adopted by this Urban Growth Management Functional Plan recommend and require changes to city and county comprehensive plans and implementing ordinances. The purpose of this functional plan is to implement regional goals and objectives adopted by the Metro Council as the Regional Urban Growth Goals and Objectives (RUGGO), including the Metro 2040 Growth Concept and the Regional Framework Plan. The comprehensive plan changes and related actions, including implementing regulations, required by this functional plan as a component of the Regional Framework Plan, shall be complied with by cities and counties as required by Section 5(e)(2) of the Metro Charter.

Any city or county determination not to incorporate all required functional plan policies into comprehensive plans shall be subject to the conflict resolution and mediation processes included within the RUGGO, Goal I provisions, prior to the final adoption of inconsistent policies or actions.

3.07.020 Regional Policy Basis

The regional policies adopted in this functional plan are formulated from, and are consistent with, the RUGGOs, including the Metro 2040 Growth Concept. The overall principles of the Greenspaces Master Plan are also incorporated within this functional plan. In addition, the updated Regional Transportation Plan (RTP)¹, when adopted, will serve as the primary transportation policy implementation of the 2040 Growth Concept. However, early implementation land use policies in this functional plan are integrated with early implementation transportation policies derived from preparation of the 1996 Regional Transportation Plan, and consistent with the Metro 2040 Growth Concept.

3.07.030 Structure of Requirements

The Urban Growth Management Functional Plan is a regional functional plan which contains "requirements" that are binding on cities and counties of the region as well as recommendations that are not binding. "Shall" or other directive words are used with requirements. The words "should" or "may" are used with recommendations. In general, the

¹ Metro has an adopted Regional Transportation Plan. However, because of changing local and regional conditions, as well as state and federal requirements, the RTP is scheduled to be amended in 1997.

Plan is structured so that local jurisdictions may choose either performance standard requirements or prescriptive requirements. The intent of the requirements is to assure that cities and counties have a significant amount of flexibility as to how they meet requirements. Performance standards are included in most titles. If local jurisdictions demonstrate to Metro that they meet the performance standard, they have met that requirement of the title. Standard methods of compliance are also included in the plan to establish one very specific way that jurisdictions may meet a title requirement, but these standard methods are not the only way a city or county may show compliance. In addition, certain mandatory requirements that apply to all cities and counties are established by this functional plan.

REGIONAL FUNCTIONAL PLAN REQUIREMENTS

TITLE 1: REQUIREMENTS FOR HOUSING AND EMPLOYMENT ACCOMMODATION

3.07.110 Intent

State law and Metro Code require that the Metro urban growth boundary (UGB) have sufficient capacity to accommodate the expected growth for 20 years. It is Metro policy to minimize the amount of urban growth boundary expansion required for the expected population and employment growth by the year 2017 consistent with all Statewide Goals. To further that policy, it is beneficial and desirable for Metro to require actions intended to increase the capacity for development of land within the UGB. Increasing the capacity of land within the UGB will include requiring changes for appropriate locations in both the rate of development permitted per acre (zoned density) and the rate at which housing and employment are actually built within the UGB. Development consistent with the design types of the Metro 2040 Growth Concept will focus these efforts. As a matter of regional policy, each city and county must contribute its fair share to increasing the development capacity of land within the UGB.

Metro will work with local jurisdictions to develop a set of region-wide community development code provisions, standards and other regulations which local jurisdictions may adopt that will help implement the 2040 Growth Concept and this Functional Plan. Included in this project will be a review of development standards in support of smaller lots and more flexible use of land, strategies to encourage land assembly, more flexible zoning and improvements in the pre-application process to ensure timely and thorough review and to provide for early involvement by the public to address neighborhood concerns and assure community acceptance of these changes.

3.07.120 Methods to Increase Calculated Capacity Required for All Cities and Counties

All cities and counties within Metro are required to include within their comprehensive plans and implementing ordinances the following provisions:

- A. Cities and counties shall apply a minimum density standard to all zones allowing residential use as follows:
 1. a. Provide that no development application, including a subdivision, may be approved unless the development will result in the building of 80 percent or more of the maximum number of dwelling units per net acre permitted by the zoning designation for the site; or

- b. Adopt minimum density standards that apply to each development application that vary from the requirements of subsection 1.a., above. However, for the purpose of compliance with Table 1, only those dwelling units that are allowed at these minimum density standards shall be counted for compliance with the calculated capacities of Table 1.
 2. The minimum density standard may be achieved by use of a small lot district where an average lot size of 5000 to 6200 square feet allows flexibility within that range on development applications, so long as the district remains in compliance with the minimum density standard used to calculate capacities for compliance with Table 1 capacities.
 3. No comprehensive plan provision, implementing ordinance or local process (such as site or design review) may be applied and no condition of approval may be imposed that would have the effect of reducing the minimum density standard.
 4. For high density zones with maximum zoned density higher than 37 dwelling units per net acre, the minimum residential density may be 30 dwelling units per net acre.
 5. This minimum density requirement does not apply (1) outside the urban growth boundary, (2) inside areas designated as open space on the attached Open Spaces Map, and (3) inside areas designated as unbuildable on the attached Open Spaces Map. The maximum zoned density does not include the density bonus for zones that allow them.
- B. Cities and counties shall not prohibit partitioning or subdividing inside the Metro urban growth boundary where existing lot sizes are two or more times that of the minimum lot size in the development code.
- C. Cities and counties shall not prohibit the construction of at least one accessory unit within any detached single family dwelling that is permitted to be built in any zone inside the urban growth boundary. Reasonable regulations of accessory units may include, but are not limited to, size, lighting, entrances and owner occupancy of the primary unit, but shall not prohibit rental occupancy, separate access, and full kitchens in the accessory units.

3.07.130 Design Type Boundaries Requirement

For each of the following 2040 Growth Concept design types, city and county comprehensive plans shall be amended to include the boundaries of each area, determined by the city or county consistent with the general locations shown on the 2040 Growth Concept Map:

Central City--Downtown Portland is the Central City which serves as the major regional center, an employment and cultural center for the metropolitan area.

Regional Centers--Nine regional centers will become the focus of compact development, redevelopment and high-quality transit service and multimodal street networks.

Station Communities--Nodes of development centered approximately one-half mile around a light rail or high capacity transit station that feature a high-quality pedestrian environment.

Town Centers--Local retail and services will be provided in town centers with compact development and transit service.

Main Streets--Neighborhoods will be served by main streets with retail and service developments served by transit.

Corridors--Along good quality transit lines, corridors feature a high-quality pedestrian environment, convenient access to transit, and somewhat higher than current densities.

Employment Areas--Various types of employment and some residential development are encouraged in employment areas with limited commercial uses.

Industrial Areas--Industrial areas are set aside primarily for industrial activities with limited supporting uses.

Inner Neighborhoods--Residential areas accessible to jobs and neighborhood businesses with smaller lot sizes are inner neighborhoods.

Outer Neighborhoods--Residential neighborhoods farther away from large employment centers with larger lot sizes and lower densities are outer neighborhoods.

3.07.140 Requirements to Increase Capacity If Recent Development At Low Density

A. All cities and counties shall determine whether actual built densities for housing during 1990-1995 were less than 80 percent of maximum zoned densities. The 1990-1995 actual built densities within cities and counties inside the urban growth boundary shall be compared with zoned densities for housing units during that period.

Residential developments to be analyzed shall be those which were permitted by a land use action and constructed during the period from 1990 to 1995, and residential density shall be measured in households per net developed acre.²

B. If the comparison of actual built densities to maximum zoned densities for the period 1990-1995 indicates that actual built densities were less than 80 percent of maximum

² See Title 10, Definitions.

zoned densities, the city or county shall also demonstrate that it has considered and adopted at least two of the following methods to increase capacity:

- a. Financial incentives for higher density housing;
- b. Provisions permitting additional density beyond that generally allowed in the zoning district in exchange for amenities and features provided by the developer;
- c. Removal or easing of approval standards or procedures;
- d. Redevelopment and infill strategies; and
- e. Authorization of housing types not previously allowed by the plan or regulations.

3.07.150 Determination of Calculated Capacity of Housing Units and Jobs

The purpose of this section is to require each city and county within the Metro region to determine the housing and employment capacity of its existing comprehensive plan and implementing ordinances, determine calculated capacity for dwelling units and jobs by the method in this section, and increase calculated capacity, if necessary, to achieve the functional plan capacities in Table 1. Each city and county within the Metro region is hereby required to complete the following steps:

- A. Determine the calculated capacity of dwelling units and jobs by the year 2017 using the zoned capacity³ of its current comprehensive plan and implementing ordinances.
 1. Cities and counties shall use Metro estimates of vacant land, and land likely to redevelop, unless they have data that they believe is more accurate. In this case, the city or county may provide Metro the following:
 - a. The source of the data;
 - b. The reasons that the locally developed data is a more accurate estimate than the Metro estimate of vacant and redevelopable land;
 - c. The database from which the above were derived;
 - d. The database of committed development lands.

Cities and counties may use their data, subject to acceptance by the Metro Council or its designee, after the Executive Officer determines that the city or county data may be more accurate than the Metro data. The Executive Officer shall notify the Metro Council of each instance in which the data submitted by a city or county is determined by the Executive Officer to be less accurate than Metro data.

2. In determining the calculated capacity of existing comprehensive plans and implementing ordinances, cities and counties shall not use a calculated capacity

³ See Title 10, Definitions, "zoned density" and "calculated capacity."

for dwelling units of more than 80 percent of maximum zoned residential density, unless:

- a. Actual experience in the jurisdiction since 1990 has shown that development has occurred at density greater than 80 percent of zoned residential density; or
 - b. Minimum density standards are adopted or proposed for adoption in the zoning code that require residential development at greater than 80 percent of maximum zoned residential density.
3. Cities and counties calculating capacity through the use of density bonus provisions may consider transfers, including off-site transfers, only upon demonstration that previous approvals of all density transfers within the past 5 years have resulted in an average of at least 80 percent of maximum zoned densities actually being built.
 4. The capacity calculation shall use only those development types that are allowed in the development code. Any discretionary decision must not diminish the zoned density if it is to be counted as a part of calculated capacity; and
 5. Cities and counties, in coordination with special districts, shall demonstrate that they have reviewed their public facility capacities and plans to assure that planned public facilities can be provided, to accommodate the calculated capacity within the plan period.
- B. Calculate the increases in dwelling unit and job capacities by the year 2017 from any proposed changes to the current comprehensive plans and implementing ordinances that must be adopted to comply with Section 2 of this Title and add the increases to the calculation of expected capacities.
- C. Determine the effect of each of the following on calculated capacities, and include any resulting increase or decrease in calculated capacities:
1. Required dedications for public streets, consistent with the Regional Accessibility Title;
 2. Off-street parking requirements, consistent with this functional plan;
 3. Landscaping, setback, and maximum lot coverage requirements;
 4. The effects of tree preservation ordinances, environmental protection ordinances, view preservation ordinances, solar access ordinances, or any other regulations that may have the effect of reducing the capacity of the land to develop at the zoned density;

5. The effects of areas dedicated to bio-swales, storm water retention, open space dedications, and other requirements of local codes that may reduce the capacity of the land to develop at the zoned density.
- D. If any of the calculated capacities are determined to be less than any of the city or county target dwelling unit and job capacities in Table 1, either jurisdiction-wide or in mixed-use areas, or both, then the city or county shall comply with the performance standards in Section 6 of this Title by amending its comprehensive plans and implementing ordinances to increase calculated capacities, as needed, to comply with the calculated capacities required in Table 1.
- E. Exceptions to the Section 6.B requirement that target capacities be demonstrated may be requested according to Title 8 if a city or county determines that any calculated capacity requirement in Table 1 cannot be achieved after implementation of Sections 2, 3 and 4 of this Title to increase expected capacities.

3.07.160 Local Plan Accommodation of Expected Growth Capacity for Housing and Employment—Performance Standard

All cities and counties within Metro shall demonstrate that:

- A. The provisions required in Section 2 of this Title have been included in comprehensive plans and implementing ordinances; and that
- B. Using the computation method in Section 5, including the minimum residential density provisions required in Section 2, that calculated capacities will achieve the target capacities for dwelling units and full-time and part-time jobs contained in Table 1 in the Appendix to this plan, including both jurisdiction-wide expected capacities and capacities for mixed-use areas; and that
- C. Effective measures have been taken to reasonably assure that the calculated capacities will be built for dwelling units and jobs; and that
- D. Expected development has been permitted at locations and densities likely to be achieved during the 20-year planning period by the private market or assisted housing programs, once all new regulations are in effect.

3.07.170 Design Type Density Recommendations

- A. For the area of each of the 2040 Growth Concept design types, the following average densities for housing and employment are recommended to cities and counties:

Central City - 250 persons per acre

Regional Centers - 60 persons per acre
Station Communities - 45 persons per acre
Town Centers - 40 persons per acre
Main Streets - 39 persons per acre
Corridor - 25 persons per acre
Employment Areas - 20 persons per acre
Industrial Areas - 9 employees per acre
Inner Neighborhoods - 14 persons per acre
Outer Neighborhoods - 13 persons per acre

TITLE 2: REGIONAL PARKING POLICY

3.07.210 Intent

The State's Transportation Planning Rule calls for reductions in vehicle miles traveled per capita and restrictions on construction of new parking spaces as a means of responding to transportation and land use impacts of growth. The Metro 2040 Growth Concept calls for more compact development as a means to encourage more efficient use of land, promote non-auto trips and protect air quality. In addition, the federally mandated air quality plan adopted by the state relies on the 2040 Growth Concept fully achieving its transportation objectives. Notably, the air quality plan relies upon reducing vehicle trips per capita and related parking spaces through minimum and maximum parking ratios. This title addresses these state and federal requirements and preserves the quality of life of the region.

A compact urban form requires that each use of land is carefully considered and that more efficient forms are favored over less efficient ones. Parking, especially that provided in new developments, can result in a less efficient land usage and lower floor to area ratios. Parking also has implications for transportation. In areas where transit is provided or other non-auto modes (walking, biking) are convenient, less parking can be provided and still allow accessibility and mobility for all modes, including autos. Reductions in auto trips when substituted by non-auto modes can reduce congestion and increase air quality.

3.07.220 Performance Standard

- A. Cities and counties are hereby required to amend their comprehensive plans and implementing regulations, if necessary, to meet or exceed the following minimum standards:
1. Cities and counties shall require no more parking than the minimum as shown on Regional Parking Ratios Table, attached hereto; and
 2. Cities and counties shall establish parking maximums at ratios no greater than those listed in the Regional Parking Ratios Table and as illustrated in the Parking Maximum Map. The designation of A and B zones on the Parking Maximum Map should be reviewed after the completion of the Regional Transportation Plan and every three years thereafter. If 20-minute peak hour transit service has become available to an area within a one-quarter mile walking distance for bus transit or one-half mile walking distance for light rail transit, that area shall be added to Zone A. If 20-minute peak hour transit service is no longer available to an area within a one-quarter mile walking distance for bus transit or one-half mile walking distance for light rail transit, that area shall be removed from Zone A. Cities and counties should designate Zone A parking ratios in areas with good pedestrian access to commercial or employment areas (within 1/3 mile walk) from adjacent residential areas.

3. Cities and counties shall establish an administrative or public hearing process for considering ratios for individual or joint developments to allow a variance for parking when a development application is received which may result in approval of construction of parking spaces either in excess of the maximum parking ratios; or less than the minimum parking ratios.

Cities and counties may grant a variance from any maximum parking ratios through a variance process.

- B. Free surface parking spaces shall be subject to the regional parking maximums provided for Zone A and Zone B. Parking spaces in parking structures, fleet parking, parking for vehicles that are for sale, lease, or rent, employee car pool parking spaces, dedicated valet parking spaces, spaces that are user paid, market rate parking or other high-efficiency parking management alternatives may be exempted from maximum parking standards by cities and counties. Sites that are proposed for redevelopment may be allowed to phase in reductions as a local option. Where mixed land uses are proposed, cities and counties shall provide for blended parking rates. It is recommended that cities and counties count adjacent on-street parking spaces, nearby public parking and shared parking toward required parking minimum standards.
- C. Cities and counties may use categories or measurement standards other than those in the Regional Parking Ratios Table, but must provide findings that the effect of the local regulations will be substantially the same as the application of the Regional Parking Ratios.
- D. Cities and counties shall monitor and provide the following data to Metro on an annual basis:
 1. the number and location of newly developed parking spaces; and
 2. demonstration of compliance with the minimum and maximum parking standards, including the application of any variances to the regional standards in this Title. Coordination with Metro collection of other building data should be encouraged.

TITLE 3: WATER QUALITY AND FLOOD MANAGEMENT CONSERVATION

3.07.310 Intent

To protect the beneficial uses and functional values of resources within the Water Quality and Flood Management Areas by limiting or mitigating the impact on these areas from development activities.

3.07.320 Requirement

Cities and counties shall ensure that their comprehensive plans and implementing regulations protect Water Quality and Flood Management Areas pursuant to Section 4. Exceptions to this requirement will be considered under the provisions of Section 7.

3.07.330 Implementation Process for Cities and Counties

Cities and counties are hereby required to amend their plans and implementing ordinances, if necessary, to ensure that they comply with this Title in one of the following ways:

- A. Either adopt the relevant provisions of the Metro Water Quality and Flood Management model ordinance and map entitled Metro Water Quality and Flood Management Conservation Area Map; or
- B. Demonstrate that the plans and implementing ordinances substantially comply with the performance standards, including the map, contained in Section 4. In this case, the purpose of this map is to provide a performance standard for evaluation of substantial compliance for those jurisdictions who choose to develop their own map of water quality and flood management areas; or
- C. Any combination of A and B above that substantially complies with all performance standards in Section 4.

3.07.340 Performance Standards

- A. **Flood Mitigation.** The purpose of these standards is to protect against flooding, and prevent or reduce risk to human life and properties, by allowing for the storage and conveyance of stream flows through these natural systems.

The plans and implementing ordinances of cities and counties shall be in substantial compliance with the following performance standards:

- 1. Prohibit development within the water quality and flood management area; or

2. Limit development in a manner that requires balanced cut and fill; unless the project is demonstrated, by an engineering study, that there is no rise in flood elevation or that it will have a net beneficial effect on flood mitigation.
3. Require minimum finished floor elevations at least one foot above the design flood height or other applicable flood hazard standard for new habitable structures in the Water Quality and Flood Management Area.
4. Require that temporary fills permitted during construction shall be removed.

B. Water Quality. The purpose of these standards is to protect and allow for enhancement of water quality associated with beneficial uses as defined by the Oregon Water Resources Department and the Oregon Department of Environmental Quality.

The plans and implementing ordinances of cities and counties shall be in substantial compliance with the following performance standards:

1. Require erosion and sediment control for all new development within the Metro boundary as contained in the Metro Water Quality and Flood Management model ordinance.
2. Require to the maximum extent practicable that native vegetation cover is maintained or re-established during development, and that trees and shrubs in the Water Quality and Flood Management Area are maintained. The vegetative cover required pursuant to these provisions shall not allow the use of "Prohibited Plants for Stream Corridors and Wetlands" contained in the Water Quality and Flood Management Model Code adopted by the Metro Council.
3. Prohibit new uses of uncontained areas of hazardous materials as defined by DEQ in the Water Quality and Flood Management Areas; and

C. Protect the long term regional continuity and integrity of Water Quality and Flood Management Areas

Standards: Local jurisdictions shall establish or adopt transfer of density within ownership to mitigate the effects of development in Water Quality and Flood Management Areas, or through Transferable Development Rights (TDRs), which have substantially equivalent effect as the Metro Water Quality and Flood Management Model Ordinance.

Metro encourages local government to require that approvals of applications for partitions, subdivisions and design review actions must be conditioned with protecting Water Quality and Flood Management Areas with a conservation easement, platted as a common open space, or through purchase or donation of fee simple ownership to public

agencies or private non-profits for preservation where feasible. Metro and cities and counties shall recognize that applications involving pre-existing development within the Water Quality and Flood Management Areas shall be exempted from the provisions concerning conservation easements and purchase or donation of fee simple ownership to public agencies or private non-profits for preservation.

3.07.350 Fish and Wildlife Habitat Conservation Area

A. The purpose of these standards is to conserve, protect, and enhance fish and wildlife habitat within the fish and wildlife habitat conservation areas identified on the water quality and flood management area map by establishing performance standards and promoting coordination by Metro of regional urban water sheds.

B. Fish and Wildlife Habitat Conservation Area Recommendations

These areas shall be shown on the Water Quality and Flood Management Area Map. Fish and Wildlife Habitat Conservation Habitat Areas generally include and/or go beyond the Water Quality and Flood Management Areas. These areas shown on the map are Metro's initial inventory of significant fish and wildlife habitat conservation areas. Metro hereby recommends that local jurisdictions adopt the following temporary standards:

1. Prohibit development in the Fish and Wildlife Conservation Areas that adversely impacts fish and wildlife habitat.

Exceptions: It is recognized that urban development will, at times, necessitate development activities within or adjacent to Fish and Wildlife Habitat Conservation Areas. The following Fish and Wildlife Habitat Conservation Mitigation Policy, except for emergency situations, applies to all the following exceptions:

A project alternatives analysis, where public need for the project has been established, will be required for any of the exceptions listed below. The alternatives analysis must seek to avoid adverse environmental impacts by demonstrating there are no practicable, less environmentally damaging alternatives available. In those cases where there are no practicable, less environmentally damaging alternatives, the project proponent will seek alternatives which reduce or minimize adverse environmental impacts. Where impacts are unavoidable, compensation, by complete replacement of the impacted site's ecological attributes or, where appropriate, substitute resources of equal or greater value will be provided in accordance with the Metro Water Quality and Flood Management model ordinance.

- a. Utility construction within a maximum construction zone width established by cities and counties.

- b. Overhead or underground electric power, telecommunications and cable television lines within a sewer or stormwater right-of-way or within a maximum construction zone width established by cities and counties.
 - c. Trails, boardwalks and viewing areas construction.
 - d. Transportation crossings and widenings. Transportation crossings and widenings shall be designed to minimize disturbance, allow for fish and wildlife passage and crossings should be preferably at right angles to the stream channel.
2. Limit the clearing or removal of native vegetation from the Fish and Wildlife Habitat Conservation Area to ensure its long term survival and health. Allow and encourage enhancement and restoration projects for the benefit of fish and wildlife.
 3. Require the revegetation of disturbed areas with native plants to 90 percent cover within three years. Disturbed areas should be replanted with native plants on the Metro Plant List or an approved locally adopted plant list. Planting or propagation of plants listed on the Metro Prohibited Plant List within the Conservation Area shall be prohibited.
 4. Require compliance with Oregon Department of Fish and Wildlife (ODFW) seasonal restrictions for in-stream work. Limit development activities that would impair fish and wildlife during key life-cycle events according to the guidelines contained in ODFW's "Oregon Guidelines for Timing of In-water Work to Protect Fish and Wildlife Resources."

C. Fish and Wildlife Habitat Protection

Within eighteen (18) months from the effective date of this functional plan, Metro shall complete the following regional coordination program by adoption of functional plan provisions.

1. Metro shall establish criteria to define and identify regionally significant fish and wildlife habitat areas.
2. Metro shall adopt a map of regionally significant fish and wildlife areas after (1) examining existing Goal 5 data, reports and regulation from cities and counties, and (2) holding public hearings.
3. Metro shall identify inadequate or inconsistent data and protection in existing Goal 5 data, reports and regulations on fish and wildlife habitat. City and county comprehensive plan provisions where inventories of significant resources were completed and accepted by a LCDC Periodic Review Order after January 1, 1993, shall not be required to comply until their next periodic review.

4. Metro shall complete Goal 5 economic, social, environmental and energy (ESEE) analyses for mapped regionally significant fish and wildlife habitat areas only for those areas where inadequate or inconsistent data or protection has been identified.
5. Metro shall establish performance standards for protection of regionally significant fish and wildlife habitat which must be met by the plans implementing ordinances of cities and counties.

3.07.360 Metro Model Ordinance Required

Metro shall adopt a Water Quality and Flood Management Model Ordinance and map for use by local jurisdictions to comply with this section. Sections 1-4 of this title shall not become effective until 24 months after Metro Council has adopted a Model Code and map that addresses all of the provisions of this title. Metro may adopt a Model Code and map for protection of regionally significant fish and wildlife habitat. Section 5 of this title shall be implemented by adoption of new functional plan provisions.

3.07.370 Variances

City and county comprehensive plans and implementing regulations are hereby required to include procedures to consider claims of map error and hardship variances to reduce or remove stream corridor protection for any property demonstrated to be converted to an unbuildable lot by application of stream corridor protections.

TITLE 4: RETAIL IN EMPLOYMENT AND INDUSTRIAL AREAS

3.07.410 Intent

It is the intent of the Metro 2040 Growth Concept that Employment and Industrial Areas contain supportive retail development. Employment and Industrial areas would be expected to include some limited retail commercial uses primarily to serve the needs of people working or living in the immediate Employment or Industrial Areas; not larger market areas outside the Employment or Industrial Areas.

3.07.420 Comprehensive Plan and Implementing Ordinance Changes Required

- A. Cities and counties are hereby required to amend their comprehensive plans and implementing regulations, if necessary, to prohibit retail uses larger than 60,000 square feet of gross leasable area per building or business in the Industrial Areas designated on the attached Employment and Industrial Areas Map.
- B. This subsection applies to city and county comprehensive plan designations and zoning ordinances acknowledged by the effective date of this Functional Plan, which allow retail uses larger than 60,000 square feet of gross leasable area per building or business in Employment Areas designated on the attached Employment and Industrial Areas Map. These cities and counties may continue to allow the extent and location of retail uses allowed in Employment Areas on the effective date of this Functional Plan for the specific zones in acknowledged land use regulations listed in Exhibit A of this Title. For all other zones in Employment Areas, these cities and counties are hereby required to amend their comprehensive plans and implementing regulations, if necessary, to require a process resulting in a land use decision for any retail uses larger than 60,000 square feet of gross leasable area per building or business on those lands where such uses are currently allowed by any process. The standards for the land use decision to allow any such retail uses shall require (1) a demonstration in the record that transportation facilities adequate to serve the retail use, consistent with Metro's functional plans for transportation, will be in place at the time the retail use begins operation; and (2) a demonstration that transportation facilities adequate to meet the transportation need for the other planned uses in the Employment Areas are included in the applicable comprehensive plan provisions. If the city and county comprehensive plan designations and zoning ordinances which allow retail uses larger than 60,000 square feet of gross leasable area per building or business in Employment Areas have not been acknowledged by the effective date of this Functional Plan, subsection 2.C. of this Title shall apply.
- C. City or county comprehensive plan designations and zoning ordinances acknowledged by the effective date of this Functional Plan which do not allow retail uses larger than 60,000 square feet of gross leasable area per building or business in Employment Areas designated on the attached Employment and Industrial Areas Map shall continue to

prohibit them unless an exception is established under Section 3 of this Title pursuant to the compliance procedures of Title 8.

3.07.430 Exceptions

Exceptions to this standard for Employment Areas may be included in local compliance plans for:

- A. Low traffic generating, land-consumptive commercial uses with low parking demand which have a community or region wide market, or
- B. Specific Employment Areas which have substantially developed retail areas or which are proposed to be or have been locally designated, but not acknowledged by the effective date of this Functional Plan, as retail areas, may allow new or redeveloped retail uses where adequate transportation facilities capacity is demonstrated in local compliance plans as provided in Title 8.

Title 4, Exhibit A

Clackamas County unincorporated
Commercial
Commercial Industrial

Lake Oswego
General Commercial
Highway Commercial

Troutdale
General Commercial

Hillsboro
General Commercial

Sherwood
General Commercial

Tigard
General Commercial
Commercial Professional

Tualatin
Commercial General

Wilsonville

Planned Development Commercial

TITLE 5: NEIGHBOR CITIES AND RURAL RESERVES

3.07.510 Intent

The intent of this title is to clearly define Metro policy with regard to areas outside the Metro urban growth boundary. **NO PORTION OF THIS TITLE CAN REQUIRE ANY ACTIONS BY NEIGHBORING CITIES.** Metro, if neighboring cities jointly agree, will adopt or sign rural reserve agreements for those areas designated rural reserve in the Metro 2040 Growth Concept with Multnomah, Clackamas, and Washington County, and Neighbor City Agreements with Sandy, Canby, and North Plains. Metro would welcome discussion about agreements with other cities if they request such agreements.

In addition, counties and cities within the Metro boundary are hereby required to amend their comprehensive plans and implementing ordinances within twenty-four months to reflect the rural reserves and green corridors policies described in the Metro 2040 Growth Concept.

3.07.520 Rural Reserves and Green Corridors

Metro shall attempt to designate and protect common rural reserves between Metro's urban growth boundary and designated urban reserve areas and each neighbor city's urban growth boundary and designated urban reserves, and designate and protect common locations for green corridors along transportation corridors connecting the Metro region and each neighboring city. For areas within the Metro boundary, counties are hereby required to amend their comprehensive plans and implementing ordinances to identify and protect the rural reserves and green corridors described in the adopted 2040 Growth Concept and shown on the adopted 2040 Growth Concept Map. These rural lands shall maintain the rural character of the landscape and our agricultural economy. New rural commercial or industrial development shall be restricted to the extent allowed by law. Zoning shall be for resource protection on farm and forestry land, and very low-density residential (no greater average density than one unit for five acres) for exception land.

For areas outside the Metro boundary, Metro shall encourage intergovernmental agreements with the cities of Sandy, Canby and North Plains.

3.07.530 Invitations for Intergovernmental Agreements

Metro shall invite the cities and counties outside the Metro boundary and named in Section 1 of this title to sign an Intergovernmental Agreement, similar to the draft agreements attached hereto.

3.07.540 Metro Intent with Regard to Green Corridors

Metro shall attempt to negotiate a Green Corridor Intergovernmental Agreement with Oregon Department of Transportation (ODOT) and the three counties (Clackamas, Multnomah and Washington) to designate and protect areas along transportation corridors connecting Metro and neighboring cities.

TITLE 6: REGIONAL ACCESSIBILITY

3.07.610 Intent

Implementation of the 2040 Growth Concept requires that the region identify key measures of transportation effectiveness which include all modes of transportation. Developing a full array of these measures will require additional analysis. Focusing development in the concentrated activity centers, including the central city, regional centers, and station communities, requires the use of alternative modes of transportation in order to avoid unacceptable levels of congestion. The continued economic vitality of industrial areas and intermodal facilities is largely dependent on preserving or improving access to these areas and maintaining reasonable levels of freight mobility in the region. Therefore, regional congestion standards and other regional system performance measures shall be tailored to reinforce the specific development needs of the individual 2040 Growth Concept design types.

These regional standards will be linked to a series of regional street design concepts that fully integrate transportation and land use needs for each of the 2040 land use components. The designs generally form a continuum; a network of throughways (freeway and highway designs) will emphasize auto and freight mobility and connect major activity centers. Slower-speed boulevard designs within concentrated activity centers will balance the multi-modal travel demands for each mode of transportation within these areas. Street and road designs will complete the continuum, with multi-modal designs that reflect the land uses they serve, but also serving as moderate-speed vehicle connections between activity centers that complement the throughway system. While these designs are under development, it is important that improvements in the most concentrated activity centers are designed to lessen the negative effects of motor vehicle traffic on other modes of travel. Therefore, implementation of amenity oriented boulevard treatment that better serves pedestrian, bicycle and transit travel in the central city, regional centers, main streets, town centers, and station communities is a key step in the overall implementation of the Metro 2040 Growth Concept.

It is intended that the entirety of these Title 6 standards will be supplemented by the Regional Transportation Plan (RTP) when the RTP is approved and adopted by the Metro Council.

3.07.620 Boulevard Design

Regional routes in the central city, regional centers, station communities, main streets and town centers are designated on the Boulevard Design Map. In general, pedestrian and transit oriented design elements are the priority in the central city and regional centers, station communities, main streets and town centers. All cities and counties within the Metro region shall implement or allow others to implement boulevard design elements as improvements are made to these facilities including those facilities built by ODOT or Tri-Met. Each jurisdiction shall amend their comprehensive plans and implementing ordinances, if necessary, to require consideration or installation of the following boulevard design elements when proceeding with right-of-way improvements on regional routes designated on the boulevard design map:

- A. Wide sidewalks with pedestrian amenities such as benches, awnings and special lighting;
- B. Landscape strips, street trees and other design features that create a pedestrian buffer between curb and sidewalk;
- C. Pedestrian crossings at all intersections, and mid-block crossings where intersection spacing is excessive;
- D. The use of medians and curb extensions to enhance pedestrian crossings where wide streets make crossing difficult;
- E. Accommodation of bicycle travel;
- F. On-street parking;
- G. Motor vehicle lane widths that consider the above improvements;
- H. Use of landscaped medians where appropriate to enhance the visual quality of the streetscape.

3.07.630 Design Standards for Street Connectivity

The design of local street systems, including "local" and "collector" functional classifications, is generally beyond the scope of the Regional Transportation Plan (RTP). However, the aggregate effect of local street design impacts the effectiveness of the regional system when local travel is restricted by a lack of connecting routes, and local trips are forced onto the regional network. Therefore, the following design and performance options are intended to improve local circulation in a manner that protects the integrity of the regional system.

Local jurisdictions within the Metro region are hereby required to amend their comprehensive plans and implementing ordinances, if necessary, to comply with or exceed one of the following options in the development review process:

- A. **Design Option.** Cities and counties shall ensure that their comprehensive plans, implementing ordinances and administrative codes require demonstration of compliance with the following:
 - 1. New residential and mixed-use developments shall include local street plans that:
 - a. encourage pedestrian and bicycle travel by providing short, direct public right-of-way routes to connect residential uses with nearby existing and planned commercial services, schools, parks and other neighborhood facilities; and

- b. include no cul-de-sac streets longer than 200 feet, and no more than 25 dwelling units on a closed-end street system except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension; and
- c. provide bike and pedestrian connections on public easements or right-of-way when full street connections are not possible, with spacing between connections of no more than 330 feet except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension; and
- d. consider opportunities to incrementally extend and connect local streets in primarily developed areas; and
- e. serve a mix of land uses on contiguous local streets; and
- f. support posted speed limits; and
- g. consider narrow street design alternatives that feature total right-of-way of no more than 46 feet, including pavement widths of no more than 28 feet, curb-face to curb-face, sidewalk widths of at least 5 feet and landscaped pedestrian buffer strips that include street trees; and
- h. limit the use of cul-de-sac designs and closed street systems to situations where topography, pre-existing development or environmental constraints prevent full street extensions.

2. For new residential and mixed-use development, all contiguous areas of vacant and primarily undeveloped land of five acres or more shall be identified by cities and counties and the following will be prepared:

A map that identifies possible local street connections to adjacent developing areas. The map shall include street connections at intervals of no more than 660 feet, with more frequent connections in areas planned for mixed use or dense development.

B. Performance Option. For residential and mixed use areas, cities and counties shall amend their comprehensive plans, implementing ordinances and administrative codes, if necessary, to require demonstration of compliance with performance criteria in the following manner. Cities and counties shall develop local street design standards in text or maps or both with street intersection spacing to occur at intervals of no less than eight street intersections per mile except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension. The number of street intersections should be greatest in the highest density 2040 Growth Concept design types. Local street designs for new developments shall satisfy the following additional criteria:

1. Performance Criterion: minimize local traffic on the regional motor vehicle system, by demonstrating that local vehicle trips on a given regional facility do

not exceed the 1995 arithmetic median of regional trips for facilities of the same motor vehicle system classification by more than 25 percent.

2. Performance Criterion: everyday local travel needs are served by direct, connected local street systems where: (1) the shortest motor vehicle trip over public streets from a local origin to a collector or greater facility is no more than twice the straight-line distance; and (2) the shortest pedestrian trip on public right-of-way is no more than one and one-half the straight-line distance.

3.07.640 Transportation Performance Standards

A. Alternative Mode Analysis

1. Mode split will be used as the key regional measure for transportation effectiveness in the Central City, Regional Centers and Station Communities. Each jurisdiction shall establish an alternative mode split target (defined as non-Single Occupancy Vehicle person-trips as a percentage of all person-trips for all modes of transportation) for each of the central city, regional centers and station communities within its boundaries. The alternative mode split target shall be no less than the regional targets for these Region 2040 Growth Concept land use components to be established in the Regional Transportation Plan.
2. Cities and counties which have Central City, regional centers and station communities shall identify actions which will implement the mode split targets. These actions should include consideration of the maximum parking ratios adopted as part of Title 2; Section 2: Boulevard Design of this Title; and transit's role in serving the area.

B. Motor Vehicle Congestion Analysis for Mixed Use Areas

1. Level-Of-Service (LOS) is a measurement of the use of a road as a share of designed capacity. The following table using Level Of Service may be incorporated into local comprehensive plans and implementing ordinances to replace current methods of determining motor vehicle congestion on regional facilities, if a city or county determines that this change is needed to permit Title 1, Table 1 capacities in the Central City, Regional Centers, Town Centers, Main Streets and Station Communities:

General Congestion Performance Standards (using LOS*)

	Preferred	Acceptable	Exceeds
Mid-Day one-hour	C or better	D	E or worse
Peak two-hour	E/E or better	F/E	F/F or worse

***Level-of-Service is determined by using either the latest edition of the Highway Capacity Manual (Transportation Research Board) or through volume to capacity ratio equivalencies as follows: LOS C = .8 or better; LOS D = .8 to .9; LOS E = .9 to 1.0; and LOS F = greater than 1.0. A copy of the Level of Service Tables from the Highway Capacity Manual is attached as Exhibit A.**

2. **Accessibility.** If a congestion standard is exceeded as identified in 4.B.1, cities and counties shall evaluate the impact of the congestion on regional accessibility using the best available methods (quantitative or qualitative). If a determination is made by Metro that the congestion negatively impacts regional accessibility, local jurisdictions shall follow the congestion management procedures identified in 4.C. below.
3. The identified function or the identified capacity of a road may be significantly affected by planning for Central City, Regional Centers, Town Centers, Main Streets and Station Communities. Cities and counties shall amend their transportation plans and implementing ordinances to either change or take actions as described in Section 4.C., below, to preserve the identified function and identified capacity of the road, if necessary, to retain consistency between allowed land uses and planning for transportation facilities.

C. Congestion Management

For a city or county to amend their comprehensive plan to add a significant capacity expansion to a regional facility, the following actions shall be applied, unless the capacity expansion is included in the Regional Transportation Plan:

1. To address Level of Service, the following shall be implemented:
 - a. Transportation system management techniques
 - b. Corridor or site-level transportation demand management techniques
 - c. Additional motor vehicle capacity to parallel facilities, including the consideration of a grid pattern consistent with connectivity standards contained in Title 6 of this plan
 - d. Transit service improvements to increase ridership
2. To address preservation of motor vehicle function:
 - a. Implement traffic calming
 - b. Change the motor vehicle function classification
3. To address or preserve existing street capacity, implement transportation management strategies (e.g. access management, signal interties, lane channelization)

If the above considerations do not adequately and cost-effectively address the problem, capacity improvements may be included in the comprehensive plan.

D. Motor Vehicle Congestion Analysis Outside of Mixed Use Areas

Outside of Central City, Regional Centers, Town Centers, Main Streets and Station Communities, and where cities and counties have not elected to use the General Congestion Performance Standards in subsection 4.B of this Title:

1. The identified function or the identified capacity of a road may be significantly affected by implementation of this functional plan. Cities and counties shall amend their transportation plans and implementing ordinances to change or take actions as described in Section 4.C., below, to preserve the identified function and identified capacity of the facility, if necessary, to retain consistency between allowed land uses and planning for transportation facilities.
2. The congestion performance standard for designated state highways as identified in the 1990 Oregon Highway Plan shall be the peak and off-peak performance criteria in Appendix F of the 1992 Oregon Transportation Plan.
3. The congestion performance standard for arterials of regional significance identified at Figure 4-2 of Chapter 4 of the 1992 Regional Transportation Plan should be the peak and off-peak performance criteria in Chapter 1, Section D of the 1992 Regional Transportation Plan.
4. Congestion level of service standards are not required for all other roads.
5. If the congestion performance for a road is exceeded or the identified function or identified capacity is inconsistent with land uses, cities and counties shall apply the congestion management actions identified in 4.C.1-3, above. If these actions do not adequately and cost-effectively address the problem, capacity improvements may be included in the comprehensive plan."

Title 6, Exhibit A

TITLE 7: AFFORDABLE HOUSING

3.07.710 Intent

RUGGO Objective 17 requires that Metro adopt a "fair share" strategy for meeting the housing needs of the urban population in cities and counties based on a subregional analysis. A "fair share" strategy will include (1) a diverse range of housing types available within cities and counties inside the UGB; (2) specific goals for low and moderate rate housing to ensure that sufficient and affordable housing is available to households of all income levels that live or have a member working in each jurisdiction; (3) housing densities and costs supportive of adopted public policy for the development of the regional transportation system and designated centers and corridors; and (4) a balance of jobs and housing within the region and subregions.

Title 1 of this functional plan requires cities and counties to change their zoning to accommodate development at higher densities in locations supportive of the transportation system. Two other parts of the "fair share" strategy are addressed here: (1) encouraging use of tools identified to improve availability of sufficient housing affordable to households of all income levels; and (2) encouraging manufactured housing to assure a diverse range of available housing types.

3.07.720 Recommendations to Improve Availability of Affordable Housing

According to HUD standards, housing is affordable if the resident is paying no more than one-third of their income for housing. Data from the federally required County Consolidated Plans clearly demonstrate that there exists a shortage of housing affordable to low and moderate income people in most, if not all, cities and counties. Metro recommends that cities and counties increase their efforts to provide for the housing needs of households of all income levels that live or have a member working in each jurisdiction and that they consider implementation of some or all of the following tools and approaches to facilitate the development of affordable housing:

- A. Donate buildable tax-foreclosed properties to nonprofit organizations or governments for development as mixed market affordable housing.
- B. Develop permitting process incentives for housing being developed to serve people at or below 80% of area median income.
- C. Provide fee waivers and property tax exemptions for projects developed by nonprofit organizations or governments serving people at or below 60% of area median income.
- D. Create a land banking program to enhance the availability of appropriate sites for permanently affordable housing.

- E. Consider replacement ordinances that would require developers of high-income housing, commercial, industrial, recreational or government projects to replace any affordable housing destroyed by these projects.
- F. Consider linkage programs that require developers of job-producing development, particularly that which receives tax incentives, to contribute to an affordable housing fund.
- G. Commit locally controlled funds, such as Community Development Block Grants, Strategic Investment Program tax abatement funds or general fund dollars, to the development of permanently affordable housing for people at or below 60% of area median income.
- H. Consider inclusionary zoning requirements, particularly in tax incentive programs, for new development in transit zones and other areas where public investment has contributed to the value and developability of land.

3.07.730 Recommendations to Encourage Manufactured Housing

State housing policy requires the provision of manufactured housing inside all Urban Growth Boundaries as part of the housing mix with appropriate placement standards. The following are recommended to reduce regulatory barriers to appropriately placed manufactured housing:

- A. Requirements for a minimum of five acres to develop a manufactured housing park should be reviewed to consider a lesser requirement, or elimination of a minimum parcel and/or lot size entirely.
- B. Manufactured homes configured as duplexes, triplexes, fourplexes, etc. should be encouraged outside manufactured dwelling parks where zoning densities are consistent with single story development.

TITLE 8: COMPLIANCE PROCEDURES

3.07.810 Compliance Required

All cities and counties within the Metro boundary are hereby required to amend their comprehensive plans and implementing ordinances to comply with the provisions of this functional plan within twenty-four months of the effective date of this ordinance. Metro recommends the adoption of the policies that affect land consumption as soon as possible.

3.07.820 Compliance Procedures

A. On or before six months prior to the deadline established in Section 1, cities and counties shall transmit to Metro the following:

1. An evaluation of their local plans, including public facility capacities and the amendments necessary to comply with this functional plan;
2. Copies of all applicable comprehensive plans and implementing ordinances and public facility plans, as proposed to be amended;
3. Findings that explain how the amended city and county comprehensive plans will achieve the standards required in titles 1 through 6 of this functional plan.

In developing the evaluation, plan and ordinance amendments and findings, cities and counties shall address the Metro 2040 Growth Concept, and explain how the proposed amendments implement the Growth Concept.

B. Exceptions to any of the requirements in the above titles may be granted by the Metro Council, as provided for in the Regional Urban Growth Goals and Objectives, Section 5.3, after MPAC review. Requests for an exception should include a city or county submittal as specified in this section. The Metro Council will make all final decisions for the grant of any requested exception .

1. Population and Capacity. An exception to the requirement contained in Table 1 of Title 1 that the target capacities shall be met or exceeded may be granted based on a submittal which includes, but is not limited to, the following:
 - a. A demonstration of substantial evidence of the economic infeasibility to provide sanitary sewer, water, stormwater or transportation facilities to an area or areas; or
 - b. A demonstration that the city or county is unable to meet the target capacities listed in Table 1 because substantial areas have prior commitments to development at densities inconsistent with Metro target; or

- c. A demonstration that the dwelling unit and job capacities cannot be accommodated at densities or locations the market or assisted programs will likely build during the planning period.

As part of any request for exception under this subsection, a city or county shall also submit an estimate of the amount of dwelling units or jobs included in the capacity listed in Table 1 that cannot be accommodated; and a recommendation which identifies land that would provide for the unaccommodated capacity located outside the urban growth boundary and near or adjacent to the city or county.

In reviewing any request for exception based on the financial feasibility of providing public services, Metro, along with cities and counties, shall estimate the cost of providing necessary public services and compare those with the estimated costs submitted by the city or county requesting the exemption.

2. **Parking Measures.** Subject to the provisions of Title 2, cities or counties may request an exception to parking requirements. Metro may consider a city or county government request to allow areas designated as Zone A to be subject to Zone B requirements upon the city or county establishing that, for the area in question:

- a. There are no existing plans to provide transit service with 20-minute or lower peak frequencies; and
- b. There are no adjacent neighborhoods close enough to generate sufficient pedestrian activity; and
- c. There are no significant pedestrian activity within the present business district; and
- d. That it will be feasible for the excess parking to be converted to the development of housing, commerce or industry in the future.

The burden of proof for a variance shall increase based on the quality and timing of transit service. The existence of transit service or plans for the provision of transit service near a 20-minute or lower peak frequency shall establish a higher burden to establish the need for the exception.

3. **Water Quality and Flood Management Areas.** Cities and counties may request areas to be added or deleted from the Metro Water Quality and Flood Management Area based on a finding that the area identified on the map is not a Water Quality and Flood Management Area or a Fish and Wildlife Habitat Conservation Area, as defined in this functional plan. Areas may also be deleted from the map if the city or county can prove that its deletion and the cumulative impact of all deletions in its jurisdiction will have minimal impact on the water

quality of the stream and on flood effects. Findings shall be supported by evidence, including the results of field investigations.

4. **Retail in Employment and Industrial Areas.** Subject to the provisions of Title 4, cities and counties may request a change in the Employment and Industrial Areas Map. Metro may consider a city or county request to modify an Employment Area to exempt existing or locally designated retail areas, unacknowledged by the date of this Functional Plan, where they can demonstrate that
 - a. The Employment and Industrial Areas Map included lands within Employment Areas having a substantially developed existing retail area or a locally designated retail area pursuant to a comprehensive plan acknowledged by the date of this Functional Plan which allowed retail uses larger than 60,000 square feet of gross leasable area per building or business; or
 - b. The requested retail area in an Employment Area has been found to be appropriate for an exception based upon current or projected needs within the jurisdiction and the city or county can demonstrate that adequate transportation facilities capacity exists for that retail area.
 5. **Regional Accessibility.** Cities or counties may request an exception to the requirements of Title 6, Regional Accessibility, where they can show that a street system or connection is not feasible for reasons of topographic constraints or natural or built environment considerations.
- C. The Metro Council may grant an extension to time lines under this functional plan if the city or county has demonstrated substantial progress or proof of good cause for failing to complete the requirements on time. Requests for extensions of the compliance requirement in Section 1 of this Title should accompany the compliance transmittal required in Section 2.A. of this Title.
- D. In addition to the above demonstrations, any city or county request or determination that functional plan policies should not or cannot be incorporated into comprehensive plans shall be subject to the conflict resolution and mediation processes included within the RUGGO, Goal I, provisions prior to the final adoption of inconsistent policies or actions. Final land use decisions of cities and counties inconsistent with functional plan requirements are subject to immediate appeal for violation of the functional plan.
- E. Compliance with requirements of this plan shall not require cities or counties to violate federal or state law, including statewide land use goals. Conflicting interpretations of legal requirements may be the subject of a compliance interpretation and conflict resolution under RUGGO Objective 5.3.

3.07.830 Any Comprehensive Plan Change Must Comply

- A. After the effective date of this ordinance, any amendment of a comprehensive plan or implementing ordinance shall be consistent with the requirements of this functional plan.
- B. In addition to any transmittal required by Section 2 of this Title, in the process of amending any comprehensive plan provision or implementing ordinance, a city or county shall give notice to Metro as required herein. At the same time any notice is given to the director of the Department of Land Conservation and Development pursuant to ORS 197.610 or 197.615, a copy shall be sent to Metro's Executive Officer. In addition to the content of the notice required by ORS 197.610 or 197.615, the notice furnished to Metro should include an analysis demonstrating that the proposed amendments are consistent with this functional plan, if available. If the analysis demonstrating consistency with the functional plan is not included in the initial notice, a report containing the analysis shall be delivered to Metro no later than fourteen (14) days before the city or county conducts a final hearing on the proposed amendment.
- C. If no notice of intent to appeal is filed within the 21-day period set out in ORS 197.830(8), an amendment to a city or county comprehensive plan or land use regulation to implement this functional plan shall be deemed to be in compliance with this functional plan. If the city or county amendment is appealed pursuant to ORS 197.830 to 197.855 and is ultimately affirmed on appeal, the amendment shall be deemed to be in compliance with the functional plan upon the date that the appellate decision becomes final. This functional plan shall not apply to land use decisions made in conformance with city or county comprehensive plans or land use regulations deemed in compliance with this functional plan pursuant to this subsection.
- D. An amendment to a city or county comprehensive plan or land use regulation shall not be deemed in compliance with this functional plan as provided in subsection C of this section unless notice has been given to Metro as provided in subsection B of this section.

3.07.840 Compliance Plan Assistance

- A. Any city or county may request of Metro a compliance plan which contains the following:
 - 1. An analysis of the city or county comprehensive plan and implementing ordinances, and what sections require change to comply with the performance standards.
 - 2. Specific amendments that would bring the city or county into compliance with the requirements of Sections 1 to 8, if necessary.

- B. Cities and counties must make the request within four months of the effective date of this ordinance. The request shall be signed by the highest elected official of the jurisdiction.
- C. Metro shall deliver a compliance plan within four months of the request date. The compliance plan shall be a recommendation from the Executive Officer. The compliance plan shall be filed with the Metro Council two weeks before it is transmitted, for possible review and comment.

3.07.850 Citizen Involvement Process

- A. Any citizen may contact Metro staff or the Metro Executive Officer or appear before the Metro Council to raise issues regarding local functional plan compliance, to request Metro participation in the local process, or to request the Metro Council appeal a local enactment for which notice is required to be given to Metro pursuant to Section 3 of Title 8. Such contact may be either oral or in writing and may be made at any time during or at the conclusion of any city or county proceeding to amend a comprehensive plan or implementing ordinance for which notice is required to be given to Metro pursuant to Section 3 of Title 8. All such requests to participate or appeal made in writing shall be forwarded to the Metro Council.
- B. In addition to considering requests as described in A above, the Metro Council shall at every regularly scheduled Council meeting provide an opportunity for citizens to address the Council on any matter related to this functional plan.
- C. Cities, counties and Metro shall comply with their own adopted and acknowledged Citizen Involvement Requirements (Citizen Involvement) in all decisions, determinations and actions taken to implement and comply with this functional plan. The Executive Officer shall at least annually publish and distribute a Citizen Involvement fact sheet after consultation with the Metro Committee for Citizen Involvement, that fully describes all opportunities for citizen involvement in Metro's Regional Growth Management Process as well as the implementation and enforcement of this functional plan.

3.07.860 Enforcement

- A. Prior to a final decision to amend a comprehensive plan or implementing ordinance, a city or county determination that a requirement of this functional plan should not or cannot be implemented may be subject to a compliance interpretation and the conflict resolution process provided for in RUGGO, Goal I at the request of the city or county.
- B. City or county actions to amend a comprehensive plan or implementing ordinance in violation of this functional plan at any time after the effective date of this ordinance shall be subject to appeal or other legal action for violation of a regional functional plan requirement, including but not limited to reduction of regional transportation funding and funding priorities.

- C. Failure to amend comprehensive plans and implementing ordinances as required by Section 1 of this Title shall be subject to any and all enforcement actions authorized by law.

TITLE 9: PERFORMANCE MEASURES

3.07.910 Intent

In order to monitor progress in implementation of this functional plan, and in order to implement Objective 10 of RUGGO, Metro shall establish performance measures related to the achievement and expected outcome resulting from the implementation of this functional plan.

3.07.920 Performance Measures Adoption

- A. Within three months of the adoption of this functional plan, the Metro Executive Officer shall submit to the Council the Executive Officer's recommendations for:
1. Performance measures to be used in evaluating the progress of the region in implementation of this functional plan; and
 2. Policies for corrective action should the performance measures indicate that the goals contained in the functional plan are not being achieved.

In developing these performance measures and policies, the Executive Officer shall use the best technology available to Metro, and shall, in addition, submit the current and recent historic levels for the proposed performance measures.

- B. The Council, after receiving advice and comment from the Metropolitan Policy Advisory Committee, shall adopt a list of performance measures that will be used to monitor and evaluate this functional plan. The performance measures will be evaluated at least by regional level, by Growth Concept design types, by regional and town center market areas, and by jurisdiction. The performance measures shall include a biennial goal for the next six years, and shall be accompanied by policies for adjusting the regional plans based on actual performance.
- C. The performance measures shall include, but shall not be limited to the following:
1. Amount of land converted from vacant to other uses, according to jurisdiction, Growth Concept design type, and zoning;
 2. Number and types of housing constructed, their location, density, and costs, according to jurisdiction, Growth Concept design type, and zoning;
 3. The number of new jobs created in the region, according to jurisdiction, Growth Concept design type, and zoning;

4. The amount of development of both jobs and housing that occurred as redevelopment or infill, according to jurisdiction, Growth Concept design type, and zoning;
5. The amount of land that is environmentally sensitive that is permanently protected, and the amount that is developed;
6. Other measures that can be reliably measured and will measure progress in implementation in key areas.
7. Cost of land based on lot prices according to jurisdiction, Growth Concept design type, and zoning; and according to redeveloped and vacant classifications.
8. The average vacancy rate for all residential units.

D. Use of the performance measures

1. The performance measures will contain both the current level of achievement, and the proposed level necessary to implement this functional plan and achieve the Metro 2040 Growth Concept adopted in the Regional Urban Growth Goals and Objectives (RUGGO). The performance measures will be used to evaluate and adjust, as necessary, Metro's functional plans, Urban Growth Boundary, and other regional plans.
2. By March 1 of every other year beginning March 1, 1999, the Executive Officer shall report to the Council an assessment of the regional performance measures, and recommend corrective actions, as necessary, consistent with the Metro Council's policies.
3. The Council shall refer the recommendations to the Hearing Officer, who shall hold a hearing to review the data in the Executive Officer's report on the performance measures, and gather additional data from any interested party. The Hearing officer shall review all of the information presented on the performance measures. The complete record of information, findings of fact, and a recommendation shall be forwarded to the Council by the Hearing Officer.
4. The Council shall hold a hearing on the record, adopt findings of fact, and take any necessary corrective action by September 1 of the year.

FUNCTIONAL PLAN DEFINITIONS

3.07.1000 For the purpose of this Functional Plan, the following definitions shall apply:

- a) **Accessibility** means the amount of time required to reach a given location or service by any mode of travel.
- b) **Alternative Modes** means alternative methods of travel to the automobile, including public transportation (light rail, bus and other forms of public transportation), bicycles and walking.
- c) **Balanced cut and fill** means no net increase in fill within the floodplain.
- d) **Bikeway** means separated bike paths, striped bike lanes, or wide outside lanes that accommodate bicycles and motor vehicles.
- e) **Boulevard Design** means a design concept that emphasizes pedestrian travel, bicycling and the use of public transportation, and accommodates motor vehicle travel.
- f) **Calculated Capacity** means the number of dwelling units and jobs that can be contained in an area based on the calculation required by this functional plan.
- g) **Capacity Expansion** means constructed or operational improvements to the regional motor vehicle system that increase the capacity of the system.
- h) **Comprehensive plan** means the all inclusive, generalized, coordinated land use map and policy statement of cities and counties defined in ORS 197.015(5).
- i) **Connectivity** means the degree to which the local and regional street systems in a given area are interconnected.
- j) **Designated Beneficial Water Uses** means the same as the term as defined by the Oregon Department of Water Resources, which is: an instream public use of water for the benefit of an appropriator for a purpose consistent with the laws and the economic and general welfare of the people of the state and includes, but is not limited to, domestic, fish life, industrial, irrigation, mining, municipal, pollution abatement, power development, recreation, stockwater and wildlife uses.
- k) **Design Type** means the conceptual areas described in the Metro 2040 Growth Concept text and map in Metro's regional goals and objectives, including central city, regional centers, town centers, station communities, corridors, main streets, inner and outer neighborhoods, industrial areas, and employment areas.
- l) **Development** means any manmade change defined as buildings or other structures, mining, dredging, paving, filling, or grading in amounts greater than ten (10) cubic yards on any lot

or excavation. In addition, any other activity that results in the removal of more than 10% of the existing vegetated area on the lot is defined as development, for the purposes of Title 3.

Exceptions:

- Stream enhancement or restoration projects approved by cities and counties.
 - Agricultural activity.
 - Replacement, additions, alterations and accessory uses for existing structures and development that do not encroach into the Water Quality and Flood Management Area more than the existing structure or development.
- m) **Development Application** means an application for a land use decision, limited land decision including expedited land divisions, but excluding partitions as defined in ORS 92.010(7) and ministerial decisions such as a building permit.
- n) **DBH** means the diameter of a tree measured at breast height.
- o) **DLCD Goal 5 ESEE** means a decision process local governments carry out under OAR 660-23-040.
- p) **Fish and Wildlife Habitat Conservation Area** means the area defined on the Metro Water Quality and Flood Management Area Map to be completed and attached hereto. These include all Water Quality and Flood Management Areas that require regulation in order to protect fish and wildlife habitat. This area has been mapped to generally include the area 200 feet from top of bank of streams in undeveloped areas with less than 25% slope, and 100 feet from edge of mapped wetland on undeveloped land.
- q) **Floodplain** means land subject to periodic flooding, including the 100-year floodplain as mapped by FEMA Flood Insurance Studies or other substantial evidence of actual flood events
- r) **Functions and Values of Stream Corridors** means stream corridors have the following functions and values: water quality retention and enhancement, flood attenuation, fish and wildlife habitat, recreation, erosion control, education, aesthetic, open space and wildlife corridor.
- s) **Growth Concept Map** means the conceptual map demonstrating the 2040 Growth Concept design types attached to this plan in the Appendix.
- t) **Hazardous materials** means materials described as hazardous by Oregon Department of Environmental Quality.

- u) **Implementing Ordinances or Regulations** means any city or county land use regulation as defined by ORS 197.015(11) which includes zoning, land division or other ordinances which establish standards for implementing a comprehensive plan.
- v) **Landscape Strip** means the portion of public right-of-way located between the sidewalk and curb.
- w) **Level-of-Service (LOS)** means the ratio of the volume of motor vehicle demand to the capacity of the motor vehicle system during a specific increment of time.
- x) **Local Trip** means a trip 2½ miles or less in length.
- y) **Median** means the center portion of public right-of-way, located between opposing directions of motor vehicle travel lanes. A median is usually raised and may be landscaped, and usually incorporates left turn lanes for motor vehicles at intersections and major access points.
- z) **Metro** means the regional government of the metropolitan area, the elected Metro Council as the policy setting body of the government.
- aa) **Metro Boundary** means the jurisdictional boundary of Metro, the elected regional government of the metropolitan area.
- bb) **Metro Urban Growth Boundary** means the urban growth boundary as adopted and amended by the Metro Council, consistent with state law.
- cc) **Mixed Use** means comprehensive plan or implementing regulations that permit a mixture of commercial and residential development.
- dd) **Mobility** means the speed at which a given mode of travel operates in a specific location.
- ee) **Mode-Split Target** means the individual percentage of public transportation, pedestrian, bicycle and shared-ride trips expressed as a share of total person-trips.
- ff) **Motor Vehicle** means automobiles, vans, public and private buses, trucks and semi-trucks, motorcycles and mopeds.
- gg) **Multi-Modal** means transportation facilities or programs designed to serve many or all methods of travel, including all forms of motor vehicles, public transportation, bicycles and walking.
- hh) **Narrow Street Design** means streets with less than 46 feet of total right-of-way and no more than 28 feet of pavement width between curbs.

ii) **Net Acre** means an area measuring 43,560 square feet which excludes:

- any developed road rights-of-way through or on the edge of the land; and
- environmentally constrained areas, including any open water areas, floodplains, natural resource areas protected under statewide planning Goal 5 in the comprehensive plans of cities and counties in the region, slopes in excess of 25 percent and wetlands requiring a Federal fill and removal permit under Section 404 of the Clean Water Act. These excluded areas do not include lands for which the local zoning code provides a density bonus or other mechanism which allows the transfer of the allowable density or use to another area or to development elsewhere on the same site; and
- all publicly-owned land designated for park and open spaces uses.

jj) **Net Developed Acre** consists of 43,560 square feet of land, after excluding present and future rights-of-way, school lands and other public uses.

kk) **Perennial Streams** means all primary and secondary perennial water ways as mapped by the U.S. Geological Survey.

ll) **Performance Measure** means a measurement derived from technical analysis aimed at determining whether a planning policy is achieving the expected outcome or intent associated with the policy.

mm) **Persons Per Acre** means the intensity of building development by combining residents per net acre and employees per net acre.

nn) **Person-Trips** means the total number of discrete trips by individuals using any mode of travel.

oo) **Practicable** means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose.

pp) **Primarily Developed** means areas where less than 10% of parcels are either vacant or underdeveloped.

qq) **Redevelopable Land** means land on which development has already occurred which, due to present or expected market forces, there exists the strong likelihood that existing development will be converted to more intensive uses during the planning period.

rr) **Regional Goals and Objectives** are the land use goals and objectives that Metro is required to adopt under ORS 268.380(1).

- ss) **Retail** means activities which include the sale, lease or rent of new or used products to the general public or the provision of product repair or services for consumer and business goods. Hotels or motels, restaurants or firms involved in the provision of personal services or office space are not considered retail uses.
- tt) **Riparian area** means the water influenced area adjacent to a river, lake or stream consisting of the area of transition from an hydric ecosystem to a terrestrial ecosystem where the presence of water directly influences the soil-vegetation complex and the soil-vegetation complex directly influences the water body. It can be identified primarily by a combination of geomorphologic and ecologic characteristics.
- uu) **Single Occupancy Vehicle (SOV)** means private passenger vehicles carrying one occupant.
- vv) **Shared-Ride** means private passenger vehicles carrying more than one occupant.
- ww) **Straight-Line Distance** means the shortest distance measured between two points.
- xx) **Target capacities** means the capacities in Table 1 required to be demonstrated by cities and counties for compliance with Title 1, Section 2.
- yy) **Target densities** means the average combined household and employment densities established for each design type in the RUGGO 2040 Growth Concept.
- zz) **Top of Bank** means the same as "bankfull stage" defined in OAR 141-85-010(2).
- aaa) **Traffic Calming** means street design or operational features intended to maintain a given motor vehicle travel speed.
- bbb) **Underdeveloped Parcels** means those parcels of land with less than 10% of the net acreage developed with permanent structures.
- ccc) **Vacant Land:** Land identified in the Metro or local government inventory as undeveloped land.
- ddd) **Variance** means a discretionary decision to permit modification of the terms of an implementing ordinance based on a demonstration of unusual hardship or exceptional circumstance unique to a specific property.
- eee) **Water Quality and Flood Management Area** means an area defined on the Metro Water Quality and Flood Management Area Map, to be attached hereto. These are areas that require regulation in order to mitigate flood hazards and to preserve and enhance water quality. This area has been mapped to generally include the following: stream or river channels, known and mapped wetlands, areas with floodprone soils adjacent to the stream, floodplains, and sensitive water areas. The sensitive areas are generally defined as 50 feet from top of bank

of streams for areas of less than 25% slope, and 200 feet from top of bank on either side of the stream for areas greater than 25% slope, and 50 feet from the edge of a mapped wetland.

fff) **Zoned Capacity** means the highest number of dwelling units or jobs that are allowed to be contained in an area by zoning and other city or county jurisdiction regulations.

Table 1 - Target Capacity for Housing and Employment Units - Year 1994 to 2017

City or County	Dwelling Unit Capacity ¹	Job Capacity	Mixed Use Areas ²	
			Dwelling Unit Capacity	Job Increase
Beaverton	15,021	25,122	9,019	19,084
Cornelius	1,019	2,812	48	335
Durham	262	498	0	0
Fairview	2,921	5,689	635	2,745
Forest Grove	2,873	5,488	67	628
Gladstone	600	1,530	20	140
Gresham	16,817	23,753	3,146	9,695
Happy Valley	2,030	1,767	52	245
Hillsboro	14,812	58,247	9,758	20,338
Johnson City	168	180	0	0
King City	182	241	55	184
Lake Oswego	3,353	8,179	446	3,022
Maywood Park	27	5	0	0
Milwaukie	3,514	7,478	2,571	6,444
Oregon City	6,157	8,185	341	2,341
Portland	70,704	158,503	26,960	100,087
River Grove	(15)	41	0	0
Sherwood	5,010	8,156	1,108	3,585
Tigard	6,073	14,901	981	8,026
Troutdale	3,789	5,570	107	267
Tualatin	3,635	9,794	1,248	2,069
West Linn	2,577	2,114	0	594
Wilsonville	4,425	15,030	743	4,952
Wood Village	423	736	68	211
Clackamas County ³	19,530	42,685	1,661	13,886
Multnomah County ³	3,089	2,381	0	0
Washington County ³	54,999	52,578	13,273	25,450
	243,993	461,633		

¹ Based on Housing Needs Analysis. Applies to existing city limits as of June, 1996. Annexations to cities would include the city assuming responsibility for Target Capacity previously accommodated in unincorporated county.

² Mixed use areas are: Central City - about 250 persons per acre; regional centers - about 60 ppa; town centers 40 ppa.; station communities - about 45 ppa.; main streets - about 39 ppa.

³ Standards apply to the urban unincorporated portion of the county only. At the request of cities, Metro may also supply targets for planning areas for cities in addition to the existing boundary targets cited above.

Table 2 - Regional Parking Ratios (parking ratios are based on spaces per 1,000 sq ft of gross leasable area unless otherwise stated)			
Land Use	Minimum Parking Requirements (See) Central City Transportation Management Plan for downtown Portland stds)	Maximum Permitted Parking - Zone A:	Maximum Permitted Parking Ratios - Zone B:
	Requirements may Not Exceed	Transit and Pedestrian Accessible Areas ¹	Rest of Region
General Office (includes Office Park, "Flex-Space", Government Office & misc. Services) (gsf)	2.7	3.4	4.1
Light Industrial Industrial Park Manufacturing (gsf)	1.6	None	None
Warehouse (gross square feet; parking ratios apply to warehouses 150,000 gsf or greater)	0.3	0.4	0.5
Schools: College/ University & High School (spaces/# of students and staff)	0.2	0.3	0.3
Tennis Racquetball Court	1.0	1.3	1.5
Sports Club/Recreation Facilities	4.3	5.4	6.5
Retail/Commercial, including shopping centers	4.1	5.1	6.2
Bank with Drive-In	4.3	5.4	6.5
Movie Theater (spaces/number of seats)	0.3	0.4	0.5
Fast Food with Drive Thru	9.9	12.4	14.9
Other Restaurants	15.3	19.1	23
Place of Worship (spaces/seats)	0.5	0.6	0.8
Medical/Dental Clinic	3.9	4.9	5.9
Residential Uses			
Hotel/Motel	1	none	none
Single Family Detached	1	none	none
Residential unit, less than 500 square feet per unit, one bedroom	1	none	none
Multi-family, townhouse, one bedroom	1.25	none	none
Multi-family, townhouse, two bedroom	1.5	none	none
Multi-family, townhouse, three bedroom	1.75	none	none

¹ Ratios for uses not included in this table would be determined by cities and counties. In the event that a local government proposes a different measure, for example, spaces per seating area for a restaurant instead of gross leasable area, Metro may grant approval upon a demonstration by the local government that the parking space requirement is substantially similar to the regional standard.

Appendix B: Metro Code 3.01 Concerning Urban Reserves and Expansion of the UGB

CHAPTER 3.01

URBAN GROWTH BOUNDARY AND URBAN RESERVE PROCEDURES

SECTIONS TITLE

- 3.01.005 PURPOSE**
- 3.01.010 DEFINITIONS**
- 3.01.012 URBAN RESERVE AREAS**
- 3.01.015 LEGISLATIVE AMENDMENT PROCEDURES**
- 3.01.020 LEGISLATIVE AMENDMENT CRITERIA**
- 3.01.025 MAJOR AMENDMENT PROCEDURES**
- 3.01.030 MAJOR AMENDMENT CRITERIA**
- 3.01.033 APPLICATIONS FOR MAJOR AMENDMENTS AND LOCATIONAL ADJUSTMENTS**
- 3.01.035 LOCATIONAL ADJUSTMENT PROCEDURES**
- 3.01.037 ROADWAY REALIGNMENT - ADMINISTRATIVE ADJUSTMENTS**
- 3.01.040 METRO CONDITIONS OF APPROVAL**
- 3.01.045 FEES**
- 3.01.050 HEARING NOTICE REQUIREMENTS**
- 3.01.055 PUBLIC HEARING RULES BEFORE THE HEARINGS OFFICER**
- 3.01.060 EXCEPTIONS TO HEARING OFFICER DECISION**
- 3.01.065 COUNCIL ACTION ON QUASI-JUDICIAL AMENDMENTS**
- 3.01.070 FINAL ACTION NOTICE REQUIREMENTS**
- 3.01.075 BOUNDARY LINE LOCATION INTERPRETATION**
- 3.01.080 CHAPTER REGULATION REVIEW**
- 3.01.085 SEVERABILITY**

3.01.005 Purpose

(a) This chapter is established to provide procedures to be used by Metro in making amendments to the Metro Urban Growth Boundary (UGB) adopted pursuant to ORS 268.390(3) and 197.005 through 197.430. The chapter is intended to interpret all criteria and standards for boundary amendments pertaining to Statewide Planning Goals 2 and 14, and the Regional Urban Growth Goals and Objectives. Unique circumstances associated with a proposed amendment may require consideration of statewide planning goals other than Goals 2 and 14. This chapter

is also established to be used for the establishment and management of Urban Reserves, pursuant to OAR 660-21-000 to 660-21-100 and RUGGO Objective 22.

(b) The objectives of the UGB are to:

- (1) Provide sufficient urban land for accommodating the forecast 20-year urban land need, reevaluated at least every five years as set forth in sections 3.01.015-3.01.020;
- (2) Provide for an efficient urban growth form which reduces sprawl;
- (3) Provide a clear distinction between urban and rural lands;
- (4) Encourage appropriate infill and redevelopment in all parts of the urban region.

(c) The objectives of the Urban Reserves are to:

- (1) Identify sufficient land suitable for urbanization sufficient to accommodate the forecast needs for a 30 to 50 year interval, reevaluated at least every 15 years;
- (2) Limit the areas which are eligible to apply for inclusion to the Urban Growth Boundary consistent with ORS 197.298, and protect resource lands outside the urban reserve areas;
- (3) Protect lands designated as urban reserves for their eventual urbanization, and insure their efficient urbanization consistent with the 2040 Growth Concept, the RUGGOs and the Urban Growth Management Functional Plan;
- (4) Provide for coordination between cities, counties, school districts, and special districts for planning for the urban reserve areas;
- (5) Ensure a smooth transition to urban development by planning for general governance, public facilities, land uses, and planning for financing the capital needs of the urban development.

(Ordinance No. 92-450A, Sec. 1. Amended by Ordinance No. 96-655E, Sec. 1)

3.01.010 Definitions

(a) "Administrative adjustment" means an addition of five net acres or less to the UGB to adjust the UGB where the current UGB is coterminous with a transportation right-of-way that is changed by a modification to the alignment of the transportation facility.

(b) "Council" has the same meaning as in chapter 1.01.

(c) "Compatible," as used in this chapter, is not intended as an absolute term meaning no interference or adverse impacts of any type with adjacent uses. Any such interference or adverse impacts must be balanced with the other criteria and considerations cited.

(d) "District" has the same meaning as in chapter 1.01.

(e) "First tier urban reserves" means those urban reserves to be first urbanized because they can be most cost-effectively provided with urban services by affected cities and service districts as so designated and mapped in a Metro council ordinance.

(f) "Goals" means the statewide planning goals adopted by the Oregon Land Conservation and Development Commission at OAR 660-15-000.

(g) "Gross developable vacant land" means the total buildable land area within the UGB, as compiled by Metro for the purpose of determining the need for changes in the urban land supply. These lands can be shown to lack significant barriers to development, including, but not limited to, all recorded lots on file with the county assessors equal to or larger than either the minimum lot size of the zone in which the lot is located or the minimum lot size which will be applied in an urban holding zone which:

- (1) Are without any structures as corroborated through examination of the most recent aerial photography at the time of inventory; or
- (2) Have no improvement value according to the most recent assessor records.

(h) "Gross redevelopable land" means the total area of redevelopable land and infill parcels within the UGB including:

- (1) That portion of all partially developed recorded lots, where one-half acre or more of the land appears unimproved through examination of the most recent aerial photography at the time of inventory; and
- (2) All recorded lots on file with the county assessors, 20,000 square feet or larger where the value of the improvement(s) is significantly less than the value of the land, as established by the most recent assessor records at the time of inventory. Standard measures to account for the capability of infill and redevelopment properties will be developed by the district to provide a means to define what is significant when comparing structure value and land values; or, when a city or county has more detailed or current gross redevelopable land inventory data, for all or a part of their jurisdiction, it can request that the district substitute that data for inclusion in the gross developable land inventory.

(i) "Gross developable land" means the total of gross developable vacant land and gross redevelopable land.

(j) "Legislative amendment" means an amendment to the UGB initiated by the district, which is not directed at a particular site-specific situation or relatively small number of persons.

(k) "Locational adjustment" means a limited change to the UGB which is either an addition or deletion of 20 net acres or less.

(l) "Major amendment" means a change of the UGB, more than twenty net acres, pursuant to the criteria found in section 3.01.030 of this chapter considered by quasi-judicial procedures.

(m) "Natural area" means an area exclusively or substantially without any human development, structures, and paved areas which is wholly or substantially in a native and unaffected state. Further, it shall be identified in a city, county or district open space inventory or plan, prior to the initiation of an amendment.

(n) "Net acre" for purposes of calculating the total land area within a proposal to amend the UGB means an area measuring 43,560 square feet which excludes:

- (1) Any developed road rights-of-way through or on the edge of which the existing or proposed UGB would run; and

- (2) Environmentally constrained areas, including any open water areas, floodplains, natural resource areas protected under statewide planning Goal 5 in the comprehensive plans of cities and counties in the region, slopes in excess of 25 percent and wetlands requiring a federal fill and removal permit under Section 404 of the Clean Water Act. These excluded areas do not include lands for which the local zoning code provides a density bonus or other mechanism which allows the transfer of the allowable density or use to another area or to development elsewhere on the same site; and,
- (3) All publicly-owned land designated for park and open space uses.
- (o) "Net developable land" means the total of net developable vacant land and net redevelopable land.
- (p) "Net developable vacant land" means the amount of land remaining when gross developable vacant land is reduced by the amount of the estimated land needed for the provision of additional roads, schools, parks, private utilities and other public facilities.
- (q) "Net redevelopable land" means the amount of land remaining when gross redevelopable land is reduced by the estimated land needed for the provision of additional roads, schools, parks, private utilities and other public facilities. The district shall determine the appropriate factor to be used for each jurisdiction in consultation with the jurisdiction within which the specific redevelopable land is located.
- (r) "Nonurban land" means land currently outside the most recently amended UGB.
- (s) "Party" means any individual, agency, or organization who participates orally or in writing in the creation of the record established at a public hearing.
- (t) "Petition" means a petition to amend the UGB either as a major amendment or as a locational adjustment.
- (u) "Planning period" means the period covered by the most recent officially adopted district forecasts, which is approximately a 20-year period.
- (v) "Property owner" means a person who owns the primary legal or equitable interest in the property.
- (w) "Regional forecast" means a 20-year forecast of employment and population by specific areas within the region, which has been adopted by the district.
- (x) "Site" means the subject property for which an amendment or locational adjustment is being sought.
- (y) "Special land need" means a specific type of identified land needed which complies with Goal 14, Factors 1 and 2 that cannot be reasonably accommodated on first tier urban reserve land.
- (z) "UGB" means the Urban Growth Boundary for the district pursuant to ORS 268.390 and 197.005 through 197.430.
- (aa) "Urban land" means that land inside the UGB.
- (bb) "Urban reserve" means an area adjacent to the present UGB defined to be a priority location for any future UGB amendments when needed. Urban reserves are defined as the land likely to be needed including all developable land inside the current urban growth boundary, for a 30 to 50 year period.

(cc) "Urban facilities" means those public urban facilities for which state law allows system development charges to be imposed including transportation, water supply and treatment, sewage, parks and storm drainage facilities.

(Ordinance No. 92-450A, Sec. 1. Amended by Ordinance No. 96-655E, Sec. 1 and by Ordinance No. 97-711, Sec. 2)

3.01.012 Urban Reserve Areas

(a) Purpose. The purpose of this section is to comply with ORS 197.298 by identifying lands designated urban reserve land by Metro as the first priority land for inclusion in the Metro Urban Growth Boundary.

(b) Amount of Land Required.

- (1) The areas designated as urban reserves shall be sufficient to accommodate expected urban development for a 30 to 50 year period, including an estimate of all potential developable and redevelopable land in the urban area.
- (2) Metro shall estimate the capacity of the urban reserves consistent with the procedures for estimating capacity of the urban area as defined in section 3.01.010.
- (3) The minimum residential density to be used in calculating the need for urban reserves, estimating the capacity of the areas designated as urban reserves and required in concept plans shall be at least 10 dwelling units per net developable acre.
- (4) Metro shall designate the amount of urban reserves estimated to accommodate the forecast need.
- (5) Metro may designate a portion of the land required for urban reserves in order to phase designation of urban reserves.

(c) Mapped Urban Reserves.

- (1) Metro has designated as urban reserve areas those lands indicated on the 2040 Growth Concept map as part of the Regional Urban Growth Goals and Objectives.
- (2) Urban growth boundary amendments shall include only land designated as urban reserves unless designated urban reserve lands are inadequate to meet the need. If land designated as urban reserves is inadequate to meet the need, the priorities in ORS 197.298 shall be followed.
- (3) Within one year of Metro Council adoption of the urban reserve ordinance, the Metro Council shall modify the Metro 2040 Growth Concept to designate regional design types consistent with the Metro 2040 Growth Concept for all designated urban reserves.

(d) First Tier. First tier urban reserves shall be included in the Metro Urban Growth Boundary prior to other urban reserves unless a special land need is identified which cannot be reasonably accommodated on first tier urban reserves.

(e) Urban Reserve Plan Required. A conceptual land use plan and concept map which demonstrates compliance with the RUGGO and the 2040 Growth Concept design types and any applicable functional plan provisions shall be required for all major amendment applications and legislative amendments of the urban growth boundary including at least the following, when applicable:

- (1) Provision for either annexation to a city and any necessary service districts at the time of the final approval of the urban growth boundary amendment consistent with 3.01.065 or an applicable city-county planning area agreement which requires at least the following:
 - (A) City or county agreement to adopt comprehensive plan provisions for the lands added to the urban growth boundary which comply with all requirements of urban reserve plan conditions of the urban growth boundary approval;
 - (B) City and county agreement that lands added to the urban growth boundary shall be rezoned for urban development only upon annexation or agreement for delayed annexation to the city and any necessary service district identified in the approved Concept Plan or incorporation as a new city; and
 - (C) County agreement that, prior to annexation to the city and any necessary service districts, rural zoning that ensures a range of opportunities for the orderly, economic, and efficient provision of urban services when these lands are included in the urban growth boundary remains in place until city annexation and the adoption of urban zoning.
- (2) Notwithstanding (1) above, the Metro Council may approve a major or legislative amendment to the urban growth boundary if the proposed amendment is required to assist the region to comply with the 2040 Growth Concept or to assist the region, a city or county in demonstrating compliance with statute, rule, or statewide goal requirements for land within the urban growth boundary. These requirements include HB 2709, ORS 197.303, the statewide planning goals and Regional Urban Growth Goals and Objectives. An urban services agreement consistent with ORS 195.065 shall be required as a condition of approval for any amendment under this subsection.
- (3) The areas of Urban Reserve Study Areas #11, 14 and 65 are so geographically distant from existing city limits that annexation to a city is difficult to achieve. If the county and affected city and any necessary service districts have signed an urban service agreement or an urban reserve agreement coordinating urban services for the area, then the requirements for annexation to a city in (1)(B) and (1)(C) above shall not apply.
- (4) Provision for residential densities of at least 10 dwelling units per net developable residential acre.
- (5) Demonstrable measures that will provide a diversity of housing stock that will fulfill needed housing requirements as defined by ORS 197.303. Measures may include, but are not limited to, implementation of recommendations in Title 7 of the Urban Growth Management Functional Plan.
- (6) Demonstration of how residential developments will include, without public subsidy, housing affordable to households with incomes at or below area median incomes for home ownership and at or below 80 percent of area median incomes for rental as defined by U.S. Department of Housing and Urban Development for the adjacent urban jurisdiction. Public subsidies shall not be interpreted to mean the following: density bonuses, streamlined permitting processes, extensions to the time at which systems development charges (SDCs) and other fees are collected, and other exercises of the regulatory and zoning powers.

- (7) Provision for sufficient commercial and industrial development for the needs of the area to be developed and the needs of adjacent land inside the urban growth boundary consistent with 2040 Growth Concept design types.
- (8) A conceptual transportation plan consistent with the Regional Transportation Plan, and consistent with protection of natural resources as required by Metro functional plans.
- (9) Identification, mapping and a funding strategy for protecting areas from development due to wildlife habitat protection, water quality enhancement and mitigation, and natural hazards mitigation. A natural resource protection plan to protect fish and wildlife habitat, water quality enhancement areas and natural hazard areas shall be completed as part of the comprehensive plan and zoning for lands added to the urban growth boundary prior to urban development. The plan shall include cost estimates to implement a strategy to fund resource protection.
- (10) A conceptual public facilities and services plan, including rough cost estimates for the provision of sewer, water, storm drainage, transportation, fire and police protection facilities and parks, including financing strategy for those costs.
- (11) A conceptual school plan which provides for the amount of land and improvements needed for school facilities. Estimates of the need shall be coordinated among affected school districts, the affected city or county, and affected special districts consistent with the procedures in ORS 195.110(3), (4) and (7).
- (12) An Urban Reserve Plan map showing, at least, the following, when applicable:
 - (A) Major roadway connections and public facilities;
 - (B) Location of unbuildable lands including but not limited to steep slopes, wetlands, floodplains and riparian areas;
 - (C) General locations for commercial and industrial lands;
 - (D) General locations for single and multi-family housing;
 - (E) General locations for public open space, plazas and neighborhood centers; and
 - (F) General locations or alternative locations for any needed school, park or fire hall sites.
- (13) The urban reserve plan shall be coordinated among the city, county, school district and other service districts, including a dispute resolution process with an MPAC report and public hearing consistent with RUGGO Objective 5.3. The urban reserve plan shall be considered for local approval by the affected city or by the county, if subsection (3), above, applies in coordination with any affected service district and/or school district. Then the Metro Council shall consider final adoption of the plan.

(Ordinance No. 96-655E, Sec. 1.)

3.01.015 Legislative Amendment Procedures

(a) The process for determination of need and location of lands for amendment of the UGB is provided in section 3.01.020.

- (b) Notice shall be provided as described in section 3.01.050.
- (c) Metro shall consult with the appropriate city and/or county concerning comprehensive plan changes that may be needed to implement a legislative amendment.
- (d) Metro shall consult with the appropriate city, county, school and service districts to identify lands inside first tier urban reserves which are the most capable of being served by extension of service from existing service providers for the purpose of preparing concept plans in advance for any short term need for inclusion of additional lands in the urban growth boundary.
- (e) Legislative amendment decisions shall be accompanied by findings explaining why the UGB amendment complies with applicable state law and statewide goals as interpreted by section 3.01.020 and subsequent appellate decisions and including applicable concept plans and maps demonstrating consistency with RUGGO including the 2040 Growth Concept and compliance with any applicable functional plan provisions.
- (f) The following public hearings process shall be followed for legislative amendments:
 - (1) The district council shall refer a proposed amendment to the appropriate council committee at the first council reading of the ordinance.
 - (2) The committee shall take public testimony at as many public hearings as necessary. At the conclusion of public testimony, the committee shall deliberate and make recommendations to the council.
 - (3) The council shall take public testimony at its second reading of the ordinance, discuss the proposed amendment, and approve the ordinance with or without revisions or conditions, or refer the proposed legislative amendment to the council committee for additional consideration.
 - (4) Testimony before the council or the committee shall be directed to Goal 14 and Goal 2 considerations interpreted at section 3.01.020 of this chapter.
 - (5) When the council acts to approve a legislative amendment including land outside the district:
 - (A) Initial action shall be by resolution expressing intent to amend the UGB if and when the affected property is annexed to the district within six months of the date of adoption of the resolution; or,
 - (B) The district may initiate a district boundary annexation concurrent with a proposed UGB amendment as provided by ORS 198.705 through 198.955;
 - (C) The council shall take final action, within 30 calendar days of notice from the boundary commission that annexation to the district has been approved.

(Ordinance No. 92-450A, Sec. 1. Amended by Ordinance No. 96-655E, Sec. 1)

3.01.020 Legislative Amendment Criteria

- (a) The purpose of this section is to address ORS 197.298, Goals 2 and 14 of the statewide planning goals and RUGGO. This section details a process which is intended to interpret Goals 2 and 14 for specific

application to the district UGB. Compliance with this section shall constitute compliance with ORS 197.298, statewide planning Goals 2 and 14 and the Regional Urban Growth Goals and Objectives.

(b) While all of the following Goal 14 factors must be addressed, the factors cannot be evaluated without reference to each other. Rigid separation of the factors ignores obvious overlaps between them. Demonstration of compliance with one factor or subfactor may not constitute a sufficient showing of compliance with the goal, to the exclusion of the other factors when making an overall determination of compliance or conflict with the goal. For legislative amendments, if need has been addressed, the district shall demonstrate that the priorities of ORS 197.298 have been followed and that the recommended site was better than alternative sites, balancing factors 3 through 7.

- (1) Factor 1: Demonstrated need to accommodate long-range urban population growth.
 - (A) The district shall develop 20-year Regional Forecasts of Population and Employment, which shall include a forecast of net developable land need, providing for review and comment by cities, counties, special districts and other interested parties. After deliberation upon all relevant facts the district shall adopt a forecast. This forecast shall be completed at least every five years or at the time of periodic review, whichever is sooner. Concurrent with the adoption of the district's growth forecast, the district shall complete an inventory of net developable land, providing the opportunity for review and comment by all cities and counties in the district.
 - (B) The forecast and inventory, along with all other appropriate data shall be considered by the district in determining the need for urban developable land. The results of the inventory and forecast shall be compared, and if the net developable land equals or is larger than the need forecast, then the district council shall hold a public hearing, providing the opportunity for comment. The council may conclude that there is no need to move the UGB and set the date of the next five-year review or may direct staff to address any issues or facts which are raised at the public hearing.
 - (C) If the inventory of net developable land is less than the need forecast, the district shall conduct a further analysis of the inventory to determine whether any significant surplus of developable land in one or more land use categories could be suitable to address the unmet forecasted need. Council shall hold a public hearing prior to its determination of whether any estimated deficit of net developable land is sufficient to justify an analysis of locations for a legislative amendment the UGB.
 - (D) For consideration of a legislative UGB amendment, the district council shall review an analysis of land outside the present UGB to determine those areas best suited for expansion of the UGB to meet the identified need.
 - (E) Consistent with 3.01.012(e) areas included in a legislative amendment of the UGB shall have completed an urban reserve conceptual plan. If suitable lands with completed urban reserve plans are not sufficient to meet the identified need, additional legislative amendments of the UGB may be adopted as urban reserve plans are completed. This legislative review process for the regional UGB shall continue to consider legislative UGB amendments until the identified need is fully met.

- (F) The district must find that the identified need cannot reasonably be met within the UGB, consistent with the following considerations:
- (i) That there is not a suitable site with an appropriate comprehensive plan designation.
 - (ii) All net developable land with the appropriate plan designation within the existing UGB shall be presumed to be available for urban use during the planning period.
 - (iii) Market availability and level of parcelization shall not render an alternative site unsuitable unless justified by findings consistent with the following criteria:
 - (I) Land shall be presumed to be available for use at some time during the planning period of the UGB unless legal impediments, such as deed restrictions, make it unavailable for the use in question.
 - (II) A parcel with some development on it shall be considered unavailable if the market value of the improvements is not significantly less than the value of the land, as established by the most recent assessor records at the time of inventory. Standard measures to account for the capability of infill and redevelopment will be developed by the district to provide a means to define what is significant when comparing structure value and land values. When a city or county has more detailed or current gross redevelopable land inventory data, for all or a part of their jurisdiction, it can request that the district substitute that data in the district gross developable land inventory.
 - (III) Properly designated land in more than one ownership shall be considered suitable and available unless the current pattern or level of parcelization makes land assembly during the planning period unfeasible for the use proposed.
- (2) Factor 2: Need for housing, employment opportunities and livability may be addressed under either subsection (A) or (B) or both, as described below.
- (A) For a proposed amendment to the UGB based upon housing or employment opportunities the district must demonstrate that a need based upon an economic analysis can only be met through a change in the location of the UGB. For housing, the proposed amendment must meet an unmet need according to statewide planning Goal 10 and its associated administrative rules. For employment opportunities, the proposed amendment must meet an unmet long-term need according to statewide planning Goal 9 and its associated administrative rules. The amendment must consider adopted comprehensive plan policies of jurisdictions adjacent to the site, when identified by a jurisdiction and must be consistent with the district's adopted policies on urban growth management, transportation, housing, solid waste, and water quality management.

- (B) To assert a need for a UGB amendment based on livability, the district must:
 - (i) factually define the livability need, including its basis in adopted local, regional, state, or federal policy;
 - (ii) factually demonstrate how the livability need can best be remedied through a change in the location of the UGB;
 - (iii) identify both positive and negative aspects of the proposed UGB amendment on both the livability need and on other aspects of livability; and
 - (iv) demonstrate that, on balance, the net result of addressing the livability need by amending the UGB will be positive.

- (3) Factor 3: Orderly and economic provision of public facilities and services. An evaluation of this factor shall be based upon the following:
 - (A) For the purposes of this section, economic provision shall mean the lowest public cost provision of urban services. When comparing alternative sites with regard to factor 3, the best site shall be that site which has the lowest net increase in the total cost for provision of all urban services. In addition, the comparison may show how the proposal minimizes the cost burden to other areas outside the subject area proposed to be brought into the boundary.
 - (B) For the purposes of this section, orderly shall mean the extension of services from existing serviced areas to those areas which are immediately adjacent and which are consistent with the manner of service provision. For the provision of gravity sanitary sewers, this could mean a higher rating for an area within an already served drainage basin. For the provision of transit, this would mean a higher rating for an area which could be served by the extension of an existing route rather than an area which would require an entirely new route.

- (4) Factor 4: Maximum efficiency of land uses within and on the fringe of the existing urban area. An evaluation of this factor shall be based on at least the following:
 - (A) The subject area can be developed with features of an efficient urban growth form including residential and employment densities capable of supporting transit service; residential and employment development patterns capable of encouraging pedestrian, bicycle, and transit use; and the ability to provide for a mix of land uses to meet the needs of residents and employees. If it can be shown that the above factors of compact form can be accommodated more readily in one area than others, the area shall be more favorably considered.
 - (B) The proposed UGB amendment will facilitate achieving an efficient urban growth form on adjacent urban land, consistent with local comprehensive plan policies and regional functional plans, by assisting with achieving residential and employment densities capable of supporting transit service; supporting the evolution of residential and employment development patterns capable of encouraging pedestrian, bicycle, and transit use; and improving the likelihood of realizing a mix of land uses to meet the needs of residents and employees.

- (5) Factor 5: Environmental, energy, economic and social consequences. An evaluation of this factor shall be based upon consideration of at least the following:
- (A) If the subject property contains any resources or hazards subject to special protection identified in the local comprehensive plan and implemented by appropriate land use regulations, findings shall address how urbanization is likely to occur in a manner consistent with these regulations.
 - (B) Complementary and adverse economic impacts shall be identified through review of a regional economic opportunity analysis, if one has been completed. If there is no regional economic opportunity analysis, one may be completed for the subject land.
 - (C) The long-term environmental, energy, economic, and social consequences resulting from the use at the proposed site. Adverse impacts shall not be significantly more adverse than would typically result from the needed lands being located in other areas requiring an amendment of the UGB.
- (6) Factor 6: Retention of agricultural land. This factor shall be addressed through the following:
- (A) Prior to the designation of urban reserves, the following hierarchy shall be used for identifying priority sites for urban expansion to meet a demonstrated need for urban land:
 - (i) Expansion on rural lands excepted from statewide planning Goals 3 and 4 in adopted and acknowledged county comprehensive plans. Small amounts of rural resource land adjacent to or surrounded by those "exception lands" may be included with them to improve the efficiency of the boundary amendment. The smallest amount of resource land necessary to achieve improved efficiency shall be included;
 - (ii) If there is not enough land as described in (i) above to meet demonstrated need, secondary or equivalent lands, as defined by the state, should be considered;
 - (iii) If there is not enough land as described in either (i) or (ii) above, to meet demonstrated need, secondary agricultural resource lands, as defined by the state should be considered;
 - (iv) If there is not enough land as described in either (i), (ii) or (iii) above, to meet demonstrated need, primary forest resource lands, as defined by the state, should be considered;
 - (v) If there is not enough land as described in either (i), (ii), (iii) or (iv) above, to meet demonstrated need, primary agricultural lands, as defined by the state, may be considered.
 - (B) After urban reserves are designated and adopted, consideration of factor 6 shall be considered satisfied if the proposed amendment is wholly within an area designated as an urban reserve.

(C) After urban reserves are designated and adopted, a proposed amendment for land not wholly within an urban reserve must also demonstrate that the need cannot be satisfied within urban reserves.

(7) Factor 7: Compatibility of proposed urban development with nearby agricultural activities.

The record shall include an analysis of the potential impact on nearby agricultural activities including the following:

(i) A description of the number, location and types of agricultural activities occurring within one mile of the subject site;

(ii) An analysis of the potential impacts, if any, on nearby agricultural activities taking place on lands designated for agricultural use in the applicable adopted county or city comprehensive plan, and mitigation efforts, if any impacts are identified. Impacts to be considered shall include consideration of land and water resources which may be critical to agricultural activities, consideration of the impact on the farming practices of urbanization of the subject land, as well as the impact on the local agricultural economy.

(c) The requirements of statewide planning Goal 2 will be met by addressing all of the requirements of section 3.01.020(b), above, and by factually demonstrating that:

(1) The land need identified cannot be reasonably accommodated within the current UGB; and

(2) The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts; and

(3) The long-term environmental, economic, social and energy consequences resulting from the use at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in other areas than the proposed site and requiring an exception.

(d) The proposed location for the UGB shall result in a clear transition between urban and rural lands, using natural and built features, such as roads, drainage divides, floodplains, powerlines, major topographic features, and historic patterns of land use or settlement.

(e) Satisfaction of the requirements of section 3.01.020(a) and (b) does not mean that other statewide planning goals do not need to be considered. If the proposed amendment involves other statewide planning goals, they shall be addressed.

(f) Section 3.01.020(a), (b), (c) and (d) shall be considered to be consistent with and in conformance with the Regional Urban Growth Goals and Objectives.

(Ordinance No. 92-450A, Sec. 1. Amended by Ordinance No. 96-655E, Sec. 1 and by Ordinance No. 97-711, Sec. 1)

3.01.025 Major Amendment Procedures

(a) All major amendments shall be solely upon lands designated in urban reserves, when designated consistent with 3.01.012. All major amendments shall demonstrate compliance with the following:

- (1) The criteria in section 3.01.030 of this Code as well as the procedures in OAR 660-18-000;
- (2) Notice of public hearings for major amendments as described in section 3.01.050;
- (3) Public hearings procedures as described in sections 3.01.055 through 3.01.065;
- (4) The urban reserve plan requirements in section 3.01.012(e); and
- (5) Final action on major amendments shall be taken as described in section 3.01.070.

(Ordinance No. 92-450A, Sec. 1. Amended by Ordinance No. 96-655E, Sec. 1)

3.01.030 Major Amendment Criteria

(a) The purpose of this section is to address ORS 197.298, Goals 2 and 14 of the statewide planning goals and RUGGO. This section is a detailed listing of criteria which are intended to interpret and further define ORS 197.298, Goals 2 and 14 for specific application to the district UGB. Compliance with the requirements of this section shall constitute compliance with ORS 197.298, statewide planning Goals 2 and 14 and the Regional Urban Growth Goals and Objectives.

(b) While all of the following Goal 14 factors must be addressed, the factors cannot be evaluated without reference to each other. Rigid separation of the factors ignores obvious overlaps between them. When demonstrating compliance with the seven factors, petitioners shall not assume that demonstrating compliance with one factor or subfactor constitutes a sufficient showing of compliance with the goal, and allows the exclusion of the other factors when making an overall determination of compliance or conflict with the goal. For major amendments, the petitioner shall address factors 1 through 7. If it can be demonstrated that factors 1 and 2 can be met, factors 3 through 7 are intended to assist in the decision as to which site is most appropriate for inclusion within the boundary through a balancing of factors. Demonstration that the priorities of ORS 197.298 have been followed is required in addition to the application of factors 3 through 7.

- (1) Factor 1: Demonstrated need to accommodate long-range urban population growth.
 - (A) Evidence in support of a major amendment petition to amend the UGB shall be based on a demonstrated need to accommodate long-range population growth requirements utilizing Metro's most recently adopted regional forecast.
 - (B) Major amendment proposals shall demonstrate that the existing supply of land for the subject use is less than the district's adopted 20-year forecast of need.
 - (C) Evidence shall be provided to demonstrate that the identified need cannot reasonably be met within the UGB, consistent with the following considerations:
 - (i) A suitable site with an appropriate comprehensive plan designation is not available.
 - (ii) All net developable land with the appropriate plan designation within the existing UGB shall be presumed to be available for urban use during the planning period.

- (iii) Market availability and level of parcelization shall not render an alternative site unsuitable unless justified by findings consistent with the following criteria:
 - (a) Land shall be presumed to be available for use at some time during the planning period of the UGB unless legal impediments, such as deed restrictions, make it unavailable for the use in question.
 - (b) A parcel with some development on it shall be considered unavailable if the market value of the improvements is not significantly less than the value of the land. Standard measures to account for the capability of infill and redevelopment will be developed by the district to provide a means to define what is significant when comparing structure value and land values. When a city or county has more detailed or current gross redevelopable land inventory data, for all or a part of their jurisdiction, it can request that the district substitute that data in the gross developable land inventory.
 - (c) Properly designated land in more than one ownership shall be considered suitable and available unless the applicant demonstrates why the current pattern or level of parcelization makes land assembly during the planning period unfeasible for the use proposed.

- (2) Factor 2: Need for housing, employment and livability. A proponent may choose to address either subsection (A) or (B) or both, as described below. The proposal may be either regional or subregional in scope.
 - (A) Evidence in support of a proposed amendment to the UGB based upon housing or employment opportunities must demonstrate that a need can be factually shown to be based upon an economic analysis and can only be met through a change in the location of the UGB. For housing, at a minimum, the proposal must demonstrate an unmet need according to statewide planning Goal 10 and its associated administrative rules. For employment opportunities, the proposal must demonstrate, at a minimum, an unmet need according to statewide planning Goal 9 and its associated administrative rules. The proposal must consider adopted comprehensive plan policies of jurisdictions adjacent to the site, when identified by a jurisdiction and the proposal must demonstrate that it is consistent with adopted regional policies dealing with urban growth management, transportation, housing, solid waste, and water quality management.
 - (B) To assert a need for a UGB because of a livability need, an applicant must:
 - (i) Factually define the livability need, including its basis in adopted local, regional, state, or federal policy;
 - (ii) factually demonstrate how the livability need can best be remedied through a change in the location of the UGB;

- (iii) identify both positive and negative aspects of the proposed boundary amendment on both the livability need and on other aspects of livability; and
 - (iv) demonstrate that, on balance, the net result of addressing the livability need by amending the UGB will be positive.
- (3) Factor 3: Orderly and economic provision of urban services. Consideration of this factor shall be based upon the following:
 - (A) For the purposes of this section, economic provision shall mean the lowest public cost provision of urban services. When comparing alternative sites with regard to factor 3, the best site shall be that site which has the lowest net increase in the total cost for provision of all urban services. In addition, a proponent may show how the proposal minimizes the cost burden to other properties outside the subject property proposed to be brought into the boundary.
 - (B) For the purposes of this section, orderly shall mean the extension of services from existing serviced areas to those areas which are immediately adjacent and which are consistent with the manner of service provision. For the provision of gravity sanitary sewers, this would mean a higher rating for an area within an already served drainage basin. For the provision of transit, this would mean a higher rating for an area which could be served by the extension of an existing route rather than an area which would require an entirely new route.
- (4) Factor 4: Maximum efficiency of land uses within and on the fringe of the existing urban area. Consideration of this factor shall be based on the following:
 - (A) That the subject site can be developed with features of an efficient urban growth form including residential and employment densities capable of supporting transit service; residential and employment development patterns capable of encouraging pedestrian, bicycle, and transit use; and the ability to provide for a mix of land uses to meet the needs of residents and employees; and,
 - (B) That the amendment will facilitate achieving an efficient urban growth form on adjacent urban land, consistent with adopted local comprehensive and regional functional plans. Evidence shall demonstrate the following: the proposal assists with achieving residential and employment densities capable of supporting transit service; supports the evolution of residential and employment development patterns capable of encouraging pedestrian, bicycle, and transit use; and improves the likelihood of realizing a mix of land uses to meet the needs of residents and employees.
- (5) Factor 5: Environmental, energy, economic and social consequences. An evaluation of this factor shall include, but not be limited to, consideration of the following:
 - (A) If the subject property contains any resources or hazards subject to special protection identified in the local comprehensive plan and implemented by appropriate land use regulations, findings shall address how urbanization is likely to occur in a manner consistent with these regulations.

- (B) Complementary and adverse economic impacts shall be identified through review of a regional economic opportunity analysis, if one has been completed. If there is no economic opportunity analysis, the applicant shall complete one for the subject land.
 - (C) The long-term environmental, energy, economic, and social consequences resulting from the use at the proposed site shall be identified. Petitions shall show that potential adverse impacts are not significantly more adverse than would typically result from the same proposal being located in other areas requiring an amendment of the UGB.
- (6) Factor 6: Retention of agricultural land. This factor shall be addressed through the following:
- (A) Prior to the designation of urban reserves, the following hierarchy shall be used for identifying priority sites for urban expansion to meet a demonstrated need for urban land:
 - (i) Expansion on rural lands excepted from statewide planning Goals 3 and 4 in adopted and acknowledged county comprehensive plans. It is recognized 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 boundary amendment, but shall be limited to the smallest amount of land necessary to achieve this efficiency;
 - (ii) If there is not enough land as described in (i) above to meet demonstrated need, secondary or equivalent lands, as defined by the state, should be considered;
 - (iii) If there is not enough land as described in either (i) or (ii) above, to meet demonstrated need, secondary agricultural resource lands, as defined by the state should be considered;
 - (iv) If there is not enough land as described in either (i), (ii) or (iii) above, to meet demonstrated need, primary forest resource lands, as defined by the state, should be considered;
 - (v) If there is not enough land as described in either (i), (ii), (iii) or (iv) above, to meet demonstrated need, primary agricultural lands, as defined by the state, may be considered.
 - (B) After urban reserves are designated and adopted, consideration of factor 6 shall be considered satisfied if the proposed amendment is wholly within an area designated as an urban reserve.
 - (C) After urban reserves are designated and adopted, and a proposed amendment is for land not wholly within an urban reserve, the petition must also demonstrate by substantial evidence that the need cannot be met within urban reserves.
- (7) Factor 7: Compatibility of proposed urban development with nearby agricultural activities.

(A) Evidence shall be provided by the petitioner analyzing the potential impact on nearby agricultural activities including, but not limited to, the following:

(i) A description of the number, location and types of agricultural activities occurring within one mile of the subject site;

(ii) An analysis of the potential impacts, if any, on nearby agricultural activities taking place on lands designated for agricultural use in the applicable adopted county or city comprehensive plan, and mitigation efforts, if any impacts are identified. Impacts to be considered shall include consideration of land and water resources which may be critical to agricultural activities, consideration of the impact on the farming practices of urbanization of the subject land, as well as the impact on the local agricultural economy.

(c) The requirements of statewide planning Goal 2 will be met by addressing both the criteria in section 3.01.030(b), above, and by factually demonstrating the following:

(1) The land need identified cannot be reasonably accommodated within the current UGB;

(2) The land need identified can be fully accommodated by the proposed amendment;

(3) The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts;

(4) The long-term environmental, economic, social and energy consequences resulting from the use at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in other areas than the proposed site and requiring an exception.

(d) The district shall not consider any amendment which would result in an island of urban land outside the contiguous UGB or if the proposed addition contains within it an island of non-urban land excluded from the petition. The proposed location for the UGB shall result in a clear transition between urban and rural lands, as evidenced by its use of natural and built features, such as roads, drainage divides, floodplains, powerlines, major topographic features, and historic patterns of land use or settlement.

(e) Satisfaction of the criteria in section 3.01.030(a) and (b) does not mean that other statewide planning goals do not need to be considered. For major amendments, evidence shall be provided to identify any other applicable statewide goals which would be affected by the proposed amendment and to demonstrate compliance with them.

(f) Demonstrating compliance with the criteria in section 3.01.030(a), (b), (c) and (d) shall be considered to be consistent with and in conformance with the Regional Urban Growth Goals and Objectives.

(Ordinance No. 92-450A, Sec. 1. Amended by Ordinance No. 96-655E, Sec. 1)

3.01.033 Applications for Major Amendments and Locational Adjustments

(a) All petitions filed pursuant to this chapter for amendment of the UGB must include a completed petition on a form provided by the district. Petitions which do not include the appropriate completed form provided by the district will not be considered for approval.

(b) Major Amendments or Locational Adjustments may be filed by:

- (1) A county with jurisdiction over the property or a city with a planning area that includes or is contiguous to the property; or
- (2) The owners of the property included in the petition or a group of more than 50 percent of the property owners who own more than 50 percent of the land area in each area included in the petition.

(c) Completed petitions for amending the UGB through either a major amendment or locational adjustment, shall be considered by the district if filed prior to March 15. No petition shall be accepted under this chapter if the proposed amendment or locational adjustment to the UGB would result in an island of urban land outside the existing UGB, or if the proposed addition contains within it an island of non-urban land excluded from the petition. The district will determine not later than seven working days after the deadline whether a petition is complete and notify the petitioner. The petitioner must remedy any identified deficiencies within 14 days of notification, or the petition and fees shall be returned to the petitioner and no further consideration shall be given. Completeness of petitions shall be the petitioners' responsibility.

(d) Upon request by a councilor or the executive officer, the council may, by an affirmative vote of two-thirds of the full council, waive the filing deadline for a particular petition or petitions and hear such petition or petitions at any time. Such waiver shall not waive any other requirement of this chapter.

(e) The district shall give notice of the March 15 deadline for acceptance of petitions for UGB major amendments and locational adjustments under this chapter not less than 90 calendar days before a deadline and again 20 calendar days before a deadline in a newspaper of general circulation in the district and in writing to each city and county in the district. A copy of the notice shall be mailed not less than 90 calendar days before a deadline to anyone who has requested notification. The notice shall explain the consequences of failing to file before the deadline and shall specify the district officer or employee from whom additional information may be obtained.

(f) All petitions shall be reviewed by district staff and a report and recommendation submitted to the hearings officer. For locational adjustments, the staff report shall be submitted not less than 10 calendar days before the hearing. For major amendments, the staff report shall be submitted not less than 21 calendar days before the hearing. A copy of the staff report and recommendation shall simultaneously be sent to the petitioner(s) and others who have requested copies.

(g) It shall be the responsibility of the petitioner to provide a list of names and addresses for notification purposes, consistent with section 3.01.055(b), when submitting a petition. Said list of names and addresses shall be certified in one of the following ways:

- (1) A list attested to by a title company as a true and accurate list of property owners as of a specified date; or
- (2) A list attested to by a county assessor, or designate, pledging that the list is a true and accurate list of property owners as of a specified date; or
- (3) A list with an attached affidavit completed by the proponent affirming that the names and addresses are a true and accurate list of property owners as of a specified date.

(h) Local Position on Petition:

- (1) Except as provided in subsection 4 of this section, a petition shall not be considered completed for hearing unless the petition includes a written statement by the governing

body of each city or county with land use jurisdiction over the area included in the petition that:

- (A) recommends that Metro approve the petition; or
 - (B) recommends that Metro deny the petition; or
 - (C) expresses no preference on the petition.
- (2) Except as provided in subsection 4 of this section, a petition shall not be considered completed for hearing unless the petition includes a written statement by any special district which has an agreement with the governing body of each city or county with land use jurisdiction over the area included in the petition to provide one or more urban services to the subject area that:
- (A) recommends that Metro approve the petition; or
 - (B) recommends that Metro deny the petition; or
 - (C) expresses no preference on the petition.
- (3) If a city, county or special district holds a public hearing to establish its position on a petition, the city or county shall:
- (A) provide notice of such hearing to the district and to any city or county whose municipal boundaries or urban planning area boundary abuts the area affected; and
 - (B) provide the district with a list of the names and addresses of parties testifying at the hearing and copies of any exhibits or written testimony submitted for the hearing.
- (4) Upon request by an applicant, the executive officer shall waive the requirements of subsections (1) and (2) of this section regarding written recommendations from the city or county with land use jurisdiction or a special district which provides one or more urban services if the applicant shows that a request for comment was filed with the local government at least 120 calendar days previously and that the local government or service provider has not yet adopted a position.
- (i) Petitions outside district boundary:
- (1) Petitions to extend the UGB to include land outside the district shall not be accepted unless accompanied by:
- (A) A copy of a petition for annexation to the district to be submitted to the Portland Metropolitan Area Local Government Boundary Commission pursuant to ORS chapter 199; and
 - (B) A statement of intent to file the petition for annexation within 90 calendar days of Metro action, or after the appeal period following final action by a court concerning a Metro action, to approve the petition for UGB major amendment or locational adjustment.

- (2) A city or county may, in addition to the action required in subsection B of this section, approve a plan or zone change to implement the proposed adjustment in the area included in a petition prior to a change in the district UGB if:
 - (A) The district is given notice of the local action;
 - (B) The notice of the local action states that the local action is contingent upon subsequent action by the district to amend its UGB; and
 - (C) The local action to amend the local plan or zoning map becomes effective only if the district amends the UGB consistent with the local action.
- (3) If the city or county has not contingently amended its plan or zoning map to allow the land use category of the proposed amendment proposed in a petition, and if the district does approve the UGB amendment, the local plan or map change shall be changed to be consistent with the UGB amendment within one year.

(Ordinance No. 92-450A, Sec. 1)

3.01.035 Locational Adjustment Procedures

(a) It is the purpose of sections 3.01.035 and 3.01.037 to establish procedures to be used by the district in making minor UGB amendments. The sections are intended to incorporate relevant portions of statewide goals 2 and 14, and, by restricting the size, character, and annual acreage of UGB adjustments that may be approved under this chapter, this section obviates the need to specifically apply these goal provisions to UGB amendments approved hereunder.

(b) All locational adjustment additions and administrative adjustments for any one year shall not exceed 100 net acres and no individual locational adjustment shall exceed 20 net acres. Natural areas adjustments shall not be included in the annual total of 100 acres, and shall not be limited to 20 acres, except as specified in 3.01.035(g), below.

(c) All petitions for locational adjustments except natural area petitions shall meet the following criteria:

- (1) Orderly and economic provision of public facilities and services. A locational adjustment shall result in a net improvement in the efficiency of public facilities and services, including but not limited to, water, sewerage, storm drainage, transportation, parks and open space in the adjoining areas within the UGB. Any area to be added must be capable of being served in an orderly and economical fashion.
- (2) Maximum efficiency of land uses. The amendment shall facilitate needed development on adjacent existing urban land. Needed development, for the purposes of this section, shall mean consistent with the local comprehensive plan and/or applicable regional plans.
- (3) Environmental, energy, economic and social consequences. Any impact on regional transit corridor development must be positive and any limitations imposed by the presence of hazard or resource lands must be addressed.
- (4) Retention of agricultural land. When a petition includes land with Agricultural Class I-IV soils designated in the applicable comprehensive plan for farm or forest use, the petition shall not be approved unless it is factually demonstrated that:

- (A) Retention of any agricultural land would preclude urbanization of an adjacent area already inside the UGB, or
 - (B) Retention of the agricultural land would make the provision of urban services to an adjacent area inside the UGB impracticable.
- (5) Compatibility of proposed urban uses with nearby agricultural activities. When a proposed adjustment would allow an urban use in proximity to existing agricultural activities, the justification in terms of all factors of this subsection must clearly outweigh the adverse impact of any incompatibility.

(d) Petitions for locational adjustments to remove land from the UGB may be approved under the following conditions:

- (1) Consideration of the factors in section 3.01.035(c) demonstrate that it is appropriate the land be excluded from the UGB.
- (2) The land is not needed to avoid short-term urban land shortages for the district and any long-term urban land shortage that may result can reasonably be expected to be alleviated through the addition of urban land in an appropriate location elsewhere in the region.
- (3) Removals should not be granted if existing or planned capacity of major facilities such as sewerage, water and transportation facilities will thereby be significantly under-utilized.

(e) A petition for a locational adjustment to remove land from the UGB in one location and add land to the UGB in another location (trades) may be approved if it meets the following criteria:

- (1) The requirements of paragraph 3.01.035(c)(4) are met.
- (2) The net amount of vacant land proposed to be added may not exceed 20 acres; nor may the net amount of vacant land removed exceed 20 acres.
- (3) The land proposed to be added is more suitable for urbanization than the land to be removed, based on a consideration of each of factors of section 3.01.035 (c)(1-3 and 5) of this chapter.

(f) Petitions for locational adjustments to add land to the UGB may be approved under the following conditions:

- (1) An addition of land to make the UGB coterminous with the nearest property lines may be approved without consideration of the other conditions in this subsection if the adjustment will add a total of two gross acres or less, the adjustment would not be clearly inconsistent with any of the factors in subsection (c) this section, and the adjustment includes all contiguous lots divided by the existing UGB.
- (2) For all other additions, the proposed UGB must be superior to the UGB as presently located based on a consideration of the factors in subsection (c) of this section.
- (3) The proposed UGB amendment must include all similarly situated contiguous land which could also be appropriately included within the UGB as an addition based on the factors above.

(g) All natural area petitions for locational adjustments must meet the following conditions:

- (1) Any natural area locational adjustment petition shall be proposed at the initiative of the property owner, with concurrence from the agency proposed to accept the land.
- (2) At least 50 percent of the land area in the petition, and all land in excess of 40 acres, shall be owned by or donated to a county, city, parks district or the district, in its natural state, without mining, logging or other extraction of natural resources, or alteration of watercourses, water bodies or wetlands.
- (3) Any developable portion of the lands included in the petition, not designated as a natural area, shall not exceed twenty acres and shall lie between the existing UGB and the area to be donated.
- (4) The natural area portion owned by or to be donated to a county, city, parks district, or the district must be identified in a city or county comprehensive plan as open space or natural area or equivalent, or in the district's natural areas and open space inventory.
- (5) The developable portion of the petition shall meet the criteria set out in parts (b), (c)(1), (c)(2) and (c)(3) of section 3.01.035.

(Ordinance No. 92-450A, Sec. 1)

3.01.037 Roadway Realignment - Administrative Adjustments

- (a) Applications for administrative adjustments.
 - (1) All petitions for administrative adjustments filed pursuant to this chapter must be submitted on forms provided by the district.
 - (2) Administrative amendments may be filed by:
 - (A) a county with jurisdiction over the property; or
 - (B) a city whose corporate boundary or planning area is contiguous to the property.
 - (3) Completed petitions for Administrative Adjustments may be filed with the district at any time. The district will determine not later than seven calendar days after submittal of the petition whether a petition is complete and notify the petitioner. The petitioner must remedy any identified deficiencies within 14 calendar days of notification. Completeness of petitions shall be the petitioner's responsibility.
 - (4) Applications for Administrative Adjustments shall be approved or denied by the executive officer within 90 calendar days of determining that a petition is complete. All petitions shall be reviewed by district staff and a report and recommendation submitted to the executive officer. The staff report shall be completed within 60 calendar days, of determination that the petition is complete and mailed to the petitioner, those within the required notice area and any other persons who have requested copies. Any person may submit comments or responses within 80 calendar days of the determination that a petition is complete.
 - (5) Notice of the proposed change shall be provided to the parties listed in section 3.01.050(d)(1 through 7).

- (6) Within 10 calendar days of the final decision of the executive officer, the district shall furnish the final order and findings to all parties to the case. The notice shall contain the information listed in section 3.01.055(b)(1-5).
- (7) The executive officer's final decision may be appealed to the district council by any party to the case. Such appeal must be filed with the district within 14 calendar days of the executive officer's final decision.
- (8) Petitions for land outside the district boundary shall be subject to the provisions of section 3.01.065(f).

(b) Administrative Adjustment Criteria

- (1) Petitions for administrative adjustments shall meet the following criteria:
 - (A) The adjustment is necessary in order to accommodate modification or expansion of a transportation facility presently located on the UGB line and the transportation facility is a component of an adopted transportation system plan;
 - (B) The proposed amendment includes findings derived from a city or county transportation project development process which considered alternatives through the evaluation and balancing of relevant transportation, environmental and land use impacts; and
 - (C) The land proposed to be added to the district UGB is the minimum needed to accommodate the transportation facility modification or expansion; and
 - (D) The land to be included within the UGB is less than five net acres.

(Ordinance No. 92-450A, Sec. 1)

3.01.040 Metro Conditions of Approval

- (a) The district may attach conditions of approval which may be needed to assure compliance of the developed use with statewide goals and regional land use planning, including, but not limited to, the following:
 - (1) Conditions which may relate to findings of need for a particular type of use and for which the district finds a need to protect the opportunity for development of this type of use at the proposed site;
 - (2) Those conditions to assist in the provision of urban services as may be recommended by cities, counties with land use jurisdiction or special districts which have agreements with cities or counties to provide urban services to the area proposed for amendment.
- (b) The district shall attach the approved urban reserve plan and map required at 3.01.012(e) as conditions of approval to assure compliance of developed uses with the 2040 Growth Concept and any applicable functional plan provisions.
- (c) The district may determine that certain conditions of approval are so important to inclusion of land into the urban growth boundary that if those conditions are not met the urban growth boundary approval may be revoked automatically or by action of the district.

(d) Amendments to conditions of approval for a major amendment, including modifications of time to complete an approval condition, may be considered by the district council upon a petition by the property owner which includes evidence substantiating a change in a condition of approval; or upon the council's own motion if the approval condition states that further Metro review is required.

(e) Petitions for amendments to conditions of approval for a major amendment shall follow the procedures for applications for major amendment and council action on quasi-judicial amendments, except for the following:

- (1) Petitions for amendments to conditions of approval may be filed at any time following council approval of a major amendment;
- (2) Petitions for amendments to conditions of approval shall be heard by the council unless referred to the hearings officer by the council.

(Ordinance No. 92-450A, Sec. 1. Amended by Ordinance No. 96-655E, Sec. 1)

3.01.045 Fees

(a) Each petition submitted by a property owner or group of property owners pursuant to this chapter shall be accompanied by a filing fee in an amount to be established by resolution of the council. Such fees shall not exceed the actual costs of the district to process such petitions. The filing fee shall include administrative costs and hearings officer/public notice costs.

(b) The fees for administrative costs shall be charged from the time a petition is filed through mailing of the notice of adoption or denial to the Department of Land Conservation and Development and other interested parties.

(c) Petitioners also shall be charged for the costs of the district hearings officer as billed for that case and for the costs of public notice.

(d) Before a hearing is scheduled, petitioners shall submit a fee deposit.

(e) The unexpended portion of petitioner's deposit, if any, shall be returned to the petitioner at the time of a final disposition of the petition.

(f) If hearings officer/public notice or administrative costs exceed the amount of the deposit, the petitioner shall pay to Metro an amount equal to the costs in excess of the deposit, prior to final action by the Metro council.

(g) The Metro council may, by resolution, reduce, refund or waive the administrative fee, or portion thereof, if it finds that such fees would create an undue hardship for the applicant.

(Ordinance No. 92-450A, Sec. 1)

3.01.050 Hearing Notice Requirements

(a) 45-Day Notice. A proposal to amend the UGB by a legislative amendment, major amendment or locational adjustment shall be submitted to the director of the Department of Land Conservation and Development at least 45 days before the final hearing on adoption. The notice shall be accompanied by the appropriate forms provided by the department and shall contain a copy of a map showing the location of the proposed amendment. A copy of the same information shall be provided to the city and county, representatives of recognized neighborhoods,

citizen planning organizations and/or other recognized citizen participation organizations adjacent to the location of the proposed amendment.

(b) Newspaper Ads. A 1/8 page advertisement in a newspaper of general circulation of the district for all legislative amendments and major amendments. For legislative amendments and major amendments the initial newspaper advertisements shall be published at least 45 days prior to the public hearing and shall include the same information listed in subsection (a). For locational adjustments, a 1/8 page newspaper advertisement shall be published not more than 20, nor less than 10 calendar days prior to the hearing.

(c) Notice of public hearing shall include:

- (1) The time, date and place of the hearing.
- (2) A description of the property reasonably calculated to give notice as to its actual location. A street address or other easily understood geographical reference can be utilized if available.
- (3) For major amendments and locational adjustments,
 - (A) An explanation of the proposed action, including the nature of the application and the proposed boundary change.
 - (B) A list of the applicable criteria for approval of the petition at issue.
 - (C) A statement that the failure of an issue to be raised in a hearing, in person or by letter, or failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue precludes an appeal based on the issue.
- (4) Notice that interested persons may submit written comments at the hearing and appear and be heard.
- (5) Notice that the hearing will be conducted pursuant to district rules and before the hearings officer unless that requirement is waived by the Metro council;
- (6) Include the name of the Metro staff to contact and telephone number for more information;
- (7) State that a copy of the staff report will be available for inspection at no cost at least seven calendar days prior to the hearing, and that a copy will be made available at no cost or reasonable cost. Further that if additional documents or evidence is provided in support of the application any party shall be entitled to a continuance of the hearing; and
- (8) Include a general explanation of the requirements for submission of testimony and the procedure for conduct of hearings; and
- (9) State that all documents or evidence relied upon by the applicant is available to the public.

(d) Not less than 20 calendar days before the hearing, notice shall be mailed to the following persons:

- (1) The petitioner(s) and to owners of record of property on the most recent property tax roll where the property is located.

- (2) All property owners of record within 500 feet of the site. For purposes of this subsection, only those property owners of record within the specified distance from the subject property as determined from the maps and records in the county departments of taxation and assessment are entitled to notice by mail. Failure of a property owner to receive actual notice will not invalidate the action if there was a reasonable effort to notify owners of record.
- (3) Cities and counties in the district, or cities and counties whose jurisdictional boundaries either include or are adjacent to the subject property, and affected agencies who request regular notice.
- (4) The neighborhood association, community planning organization or other citizen group, if any, which has been recognized by the city or county with land use jurisdiction for the subject property.
- (5) Any neighborhood associations, community planning organizations, or other vehicles for citizen involvement in land use planning processes whose geographic areas of interest either include or are adjacent to the site and which are officially recognized as being entitled to participate in land use planning processes by the cities and counties whose jurisdictional boundaries either include or are adjacent to the site.
- (6) The regional representative of the director of the Oregon Department of Land Conservation and Development.
- (7) Any other person requesting notification of UGB changes.

(e) At the conclusion of the hearing, the hearings officer may continue the hearing to a time, place and date certain, without additional notice.

(Ordinance No. 92-450A, Sec. 1)

3.01.055 Public Hearing Rules before the Hearings Officer

(a) All major amendment and locational adjustment petitions accepted under this chapter shall receive a contested case hearing according to the following rules:

- (1) Hearings officers shall be selected by the district pursuant to the provisions of section 2.05.025(a) of the Metro Code.
- (2) Parties to the case shall be defined as being any individual, agency, or organization who participates orally or in writing in the creation of the record used by the hearings officer in making a decision. If an individual represents an organization orally and/or in writing, that individual must indicate the date of the organization meeting in which the position presented was adopted. The hearings officer may request that the representative explain the method used by the organization to adopt the position presented. Parties need not be represented by an attorney at any point in the process outlined in this subsection and elsewhere in this chapter.
- (3) At the time of the commencement of a hearing, the hearings officer shall provide the following information to parties:
 - (A) A list and statement of the applicable substantive criteria; a copy of ORS 197.763; Conduct of local quasi-judicial land use hearings; notice requirements;

hearing procedures, provided that failure to provide copies to all those present shall not constitute noncompliance with this subsection;

- (B) A statement that testimony and evidence must be directed toward the criteria or specific criteria which the person believes apply to the decision;
 - (C) A statement that the failure to raise an issue with sufficient specificity to afford the decision-maker and the parties an opportunity to respond to the issue precludes appeal;
 - (D) A statement that any party may request a continuance of the hearing, but that any continuance would be granted at the discretion of the hearings officer upon finding good cause;
- (4) Failure of the petitioner to appear at the hearing without making arrangements for rescheduling the hearing shall constitute grounds for immediately denying the petition.
 - (5) The hearing shall be conducted in the following order:
 - (A) Staff report.
 - (B) Statement and evidence by the petitioner in support of a petition.
 - (C) Statement and evidence of affected persons, agencies, and/or organizations opposing or supporting the petition, and/or anyone else wishing to give testimony.
 - (D) Rebuttal testimony by the petitioner.
 - (6) The hearings officer shall have the right to question any participant in the hearing. Cross-examination by parties shall be by submission of written questions to the hearings officer. The hearings officer shall give parties the opportunity to submit such questions prior to closing the hearing.
 - (7) The hearing may be continued for a reasonable period as determined by the hearings officer.
 - (8) The hearings officer may set reasonable time limits for oral testimony and may exclude or limit cumulative, repetitive, or immaterial testimony.
 - (9) A verbatim audio tape or video tape, written, or other mechanical record shall be made of all proceedings, and need not be transcribed unless necessary for review upon appeal.
 - (10) Upon conclusion of the hearing, the record shall be closed and new evidence shall not be admissible thereafter unless a party requests that the record remain open before the conclusion of the initial, evidentiary hearing. Upon such a request, the record shall remain open for at least seven days after the hearing unless there is a continuance.
 - (11) The burden of presenting evidence in support of a fact or position in the contested case rests on the petitioner. The proponent of a proposed UGB amendment shall have the burden of proving that the proposed amendment complies with the applicable standards in this chapter.

- (12) A proponent or opponent shall raise all issues of concern either orally or in written form at the public hearing. Failure to do so will constitute a waiver to the raising of such issues at any subsequent administrative or legal appeal deliberations.
- (13) The hearings officer may reopen a record to receive evidence not available or offered at the hearing. If the record is reopened, any person may raise new issues which relate to the new evidence before the record is closed.

(b) Within 30 calendar days following the close of the record, the hearings officer shall prepare and submit a proposed order and findings, together with the record compiled in the hearing and a list of parties to the case, to the executive officer. Within seven working days of receiving the materials from the hearings officer, the executive officer, or designate, shall furnish the proposed order and findings to all parties to the case. Accompanying the proposed order and findings shall be notification to parties which includes:

- (1) The procedure for filing an exception and filing deadlines for submitting an exception to the proposed order and findings of the hearings officer. Parties filing an exception with the district must furnish a copy of their exception to all parties to the case and the hearings officer.
- (2) A copy of the form to be used for filing an exception.
- (3) A description of the grounds upon which exceptions can be based.
- (4) A description of the procedure to be used to file a written request to submit evidence that was not offered at the hearing, consistent with Metro Code sections 2.05.035(c) and (d).
- (5) A list of all parties to the case.

(c) UGB petitions may be consolidated by the hearings officer for hearings where appropriate. Following consultation with district staff and prospective petitioners, the hearings officer shall issue rules for the consolidation of related cases and allocation of charges. These rules shall be designed to avoid duplicative or inconsistent findings, promote an informed decision-making process, protect the due process rights of all parties, and allocate the charges on the basis of cost incurred by each party.

(d) Once a hearings officer has submitted the proposed order and findings to the executive officer, the executive officer, or designate, shall become the custodian of the record compiled in the hearing, and shall make the record available at the district offices for review by parties.

(Ordinance No. 92-450A, Sec. 1)

3.01.060 Exceptions to Hearing Officer Decision

(a) Standing to file an exception and participate in subsequent hearings is limited to parties to the case.

(b) Parties shall have 20 calendar days from the date that the proposed order and findings are mailed to them to file an exception to the proposed order and findings of the hearings officer with the district on forms furnished by the district.

(c) The basis for an exception must relate directly to the interpretation made by the hearings officer of the ways in which the petition satisfies the standards for approving a petition for a UGB amendment. Exceptions must rely on the evidence in the record for the case. Only issues raised at the evidentiary hearing will be addressed

because failure to raise an issue constitutes a waiver to the raising of such issues at any subsequent administrative or legal appeal deliberations.

(Ordinance No. 92-450A, Sec. 1)

3.01.065 Council Action On Quasi-Judicial Amendments

(a) The council may act to approve, remand or deny a petition in whole or in part. When the council renders a decision that reverses or modifies the proposed order of the hearings officer, then, in its order, it shall set forth its findings and state its reasons for taking the action.

(b) Parties to the case and the hearings officer shall be notified by mail at least 10 calendar days prior to council consideration of the case. Such notice shall include a brief summary of the proposed action, location of the hearings officer report, and the time, date, and location for council consideration.

(c) Final council action following the opportunity for parties to comment orally to council on the proposed order shall be as provided in Code section 2.05.045. Parties shall be notified of their right to review before the Land Use Board of Appeals pursuant to 1979 Oregon Laws, chapter 772.

(d) Comments before the council by parties must refer specifically to any arguments presented in exceptions filed according to the requirements of this chapter, and cannot introduce new evidence or arguments before the council. If no party to the case has filed an exception, then the council shall decide whether to entertain public comment at the time that it takes final action on a petition.

(e) Within 20 days from the day that the proposed order and findings of the hearings officer are mailed to them, parties may file a motion to reopen the record to receive admissible evidence not available at the hearing. The motion shall show proof of service on all parties. The council shall rule on such motions with or without oral argument at the time of its consideration of the case. An order approving such a motion to reopen the record shall remand the case to the hearings officer for evidentiary hearing.

(f) When the council acts to approve in whole or in part a petition by requiring annexation to a city and/or service district(s) and Tri-Met and whenever a petition includes land outside the district:

- (1) Such action shall be by resolution expressing intent to amend the UGB if and when the affected property is annexed to the district within six months of the date of adoption of the Resolution.
- (2) The council shall take final action, as provided for in paragraphs (c) and (d) of this section, within 30 calendar days of notice that all required annexations to a city, service district(s) and the district have been approved.

(g) When the council is considering an ordinance to approve a petition, it shall take all public comment at its first reading of the ordinance, discuss the case, and then either pass the ordinance to second reading or remand the proposed order and findings of the hearings officer to the executive officer or the hearings officer for new or amended findings. If new or amended findings are prepared, parties to the case shall be provided a copy of the new order and findings by mail no less than seven calendar days prior to the date upon which the council will consider the new order and findings, and parties will be given the opportunity to provide the council with oral or written testimony regarding the new order and findings.

(Ordinance No. 92-450A, Sec. 1. Amended by Ordinance No. 96-655E, Sec. 1)

3.01.070 Final Action Notice Requirements

(a) The district shall give each county and city in the district notice of each amendment of the UGB. The district shall also notify the government with jurisdiction, which notice shall include a statement of the local action that will be required to make local plans consistent with the amended UGB and the date by which that action must be taken.

(Ordinance No. 92-450A, Sec. 1)

3.01.075 Boundary Line Location Interpretation

(a) When the UGB map and the legal description of the UGB are found to be inconsistent, the executive officer is hereby authorized to determine and interpret whether the map or the legal description correctly establishes the UGB location as adopted and to correct the map or description if necessary. In determining where the adopted UGB is located, the executive officer shall review the record to determine legislative intent. The map location should be preferred over the legal description in absence of clear evidence to the contrary, provided that for those recent adjustments or amendments where a legal description was used as an exhibit at the public hearing, the legal metes and bounds description shall be the accepted boundary.

(b) A city, county or special district whose municipal or planning area boundary includes the property, or a property owner who would be included or excluded from the urban area depending on whether the map or legal description controls, may request that the executive officer render an interpretation under this section. If the request is submitted in writing, the executive officer shall make the requested interpretation within 60 calendar days after the request is submitted.

(c) Within 10 working days of rendering the interpretation, the executive officer, or designate, shall provide a written notice and explanation of the decision to each city or county whose municipal or planning area boundaries include the area affected, owners of property in the area affected, and the council.

(d) Any party eligible to request an interpretation under subsection (b) may appeal to the council for a determination of where the UGB is located if that party disagrees with the executive officer's interpretation or if the executive officer fails to render an interpretation requested under subsection (b). Such appeal must be filed with the district within 20 calendar days of receipt of the executive officer's interpretation or within 80 calendar days after submission of the request for interpretation to the executive officer, whichever is later.

(Ordinance No. 92-450A, Sec. 1)

3.01.080 Chapter Regulation Review

The procedures in this chapter shall be reviewed by the district every five years, and can be modified by the council at any time to correct any deficiencies which may arise. This chapter shall be submitted upon adoption to the Land Conservation and Development Commission for acknowledgment pursuant to ORS 197.251, as an implementing measure to the district UGB. Amendments to this chapter shall be submitted to the Department of Land Conservation and Development pursuant to the requirements of OAR 660 Divisions 18 and 19 as appropriate.

(Ordinance No. 92-450A, Sec. 1)

3.01.085 Severability

Should a section, or portion of any section of this chapter, be held to be invalid or unconstitutional by a court of competent jurisdiction, the remainder of this chapter shall continue in full force and effect.

(Ordinance No. 92-450A, Sec. 1)

Appendix C: Future Vision

I HEREBY CERTIFY THAT THE FOREGOING IS A COMPLETE AND EXACT COPY OF THE ORIGINAL THEREOF.

[Signature]

BEFORE THE METRO COUNCIL Clerk of the Metro Council

FOR THE PURPOSE OF ADOPTING)	ORDINANCE NO. 95-604A
A FUTURE VISION FOR THE)	
REGION)	Introduced by Councilor
)	Susan McLain

WHEREAS, The voters of the Metro region adopted the 1992 Metro Charter in November, 1992; and

WHEREAS, The Charter provides for the creation of a Future Vision Commission and adoption of a Future Vision no later than July 1, 1995; and

WHEREAS, The Charter calls for the Future Vision to be "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;" and

WHEREAS, The Charter further requires the Future Vision to be "a long-term, visionary outlook for at least a 50-year period" which is to address, "(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;" and

WHEREAS, The Future Vision is not a regulatory document; and

WHEREAS, Resolution 93-1755, adopted on February 23, 1993, established the framework and appointing authorities for creating the Future Vision Commission; and

WHEREAS, Future Vision Commission members were appointed by adoption of Resolution 93-1801, by MPAC appointment, and by actions of the Governors of Oregon and Washington; and

WHEREAS, The Future Vision Commission met for over eighteen months, reviewed available materials, heard from many authorities, and commissioned four reports on jobs, carrying capacity, settlement patterns, and education; and

WHEREAS, The Future Vision Commission issued its final report on March 4, 1995, which deals with Charter-required matters as well as providing valuable suggestions for how to achieve the Vision; and

WHEREAS, The Future Vision is to be part of an ongoing regional planning process; and

WHEREAS, The Council and Future Vision Commission held a series of public hearings throughout the region to receive public testimony on the Commission's final report, in order to give the Council guidance in adopting the region's Future Vision; now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

1. Pursuant to Section 5(1) of the 1992 Metro Charter, the Future Vision for the region, attached as Exhibit A and including the Future Vision map, is adopted.

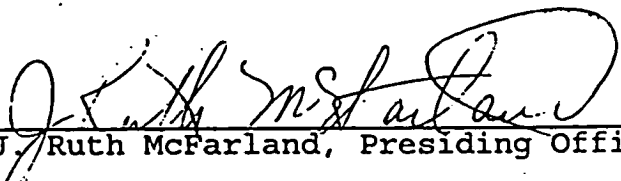
2. Ideas and suggestions from the Future Vision Commission for implementing the Future Vision and achieving its goals are attached as Exhibit B.

3. The final report of the Future Vision Commission, attached as Exhibit C, is accepted.

4. The Future Vision is not a regulatory document, and has no effect that would allow court or agency review of it. The Regional Framework Plan required by the Charter shall describe its relationship to the Future Vision. The Regional Framework Plan is not required by the Charter or by this ordinance to comply with or conform to the Future Vision.

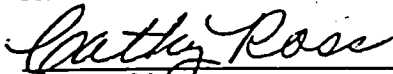
5. The Future Vision shall be completely reviewed and revised no later than July 1, 2010, in a manner prescribed by ordinance and in conformance with the terms of the Metro Charter.

ADOPTED by the Metro Council this 15 day of June, 1995.



J. Ruth McFarland, Presiding Officer

ATTEST:



Cathy Ross
Recording Secretary

1

EXHIBIT A

2

FUTURE VISION

3 Our ecological and economic region goes beyond Metro's boundaries and stretches from
4 the Cascades to the Coast Range, and from Longview to Salem. Any vision for a territory
5 as large and diverse as this must be regarded as both ambitious and a work-in-progress: it
6 is a first step in developing policies, plans, and actions that serve our bi-state region and all
7 its people.

8 While Metro recognizes that it has no control over surrounding jurisdictions and is not
9 responsible for the provision of public safety and other social services, the ability to
10 successfully manage growth within this region is dependent on and impacts each of these.

11 Future Vision is mandated by Metro's 1992 Charter. It is not a regulatory document;
12 rather it is a standard against which to gauge progress toward maintaining a livable region.

13 It is based on a number of core values essential to shaping our future. As a region:

- 14 • We value taking purposeful action to advance our aspirations for this region,
15 realizing that we should act to meet our needs today in a manner that does not
16 limit or eliminate the ability of future generations to meet their needs and enjoy
17 this landscape we are privileged to inhabit.
- 18 • We value the greatest possible individual liberty in politics, economics, lifestyle,
19 belief, and conscience, with the understanding that this liberty cannot be fully
20 realized unless accompanied by shared commitments for community, civic
21 involvement, and a healthy environment.
- 22 • We value our regional identity and sense of place, and celebrate the identity and
23 accomplishments of our urban neighborhoods and suburban and rural communities.
- 24 • We value vibrant cities that are an inspiration and a crucial resource for
25 commerce, cultural activities, politics, and community building.

- 26 • We value a healthy economy that provides stable family-wage jobs. We recognize
27 that our economic well-being depends on unimpaired and sustainable natural
28 ecosystems, and suitable social mechanisms to ensure dignity and equity for all, with
29 compassion and adequate income for those in need.
- 30 • We value the conservation, restoration, and preservation of natural and historic
31 landscapes.
- 32 • We value a life close to nature incorporated in the urban landscape.
- 33 • We value nature for its own sake, and recognize our responsibility as stewards of
34 the region's natural resources.
- 35 • We value meeting the needs of our communities through grass-roots efforts in
36 harmony with the collective interest of our regional community.
- 37 • We value participatory decision making which harnesses the creativity inherent in
38 a wide range of views.
- 39 • We value a cultural atmosphere and public policies that will ensure that every
40 child in every community enjoys the greatest possible opportunities to fulfill his or
41 her potential in life; as a high priority, every child, regardless of income, has the
42 opportunity to engage in the literary, visual, and performing arts in community
43 centers.

44

45 **REGIONAL VISION STATEMENT**

46 **EACH INDIVIDUAL:**

47 As inhabitants of this bi-state region, we are committed to the development of each
48 individual as a productive, effective member of society. This region must make clear and
49 unambiguous commitments to each individual in order that we all may have a vibrant,
50 healthy place to live. We seek the full participation of individuals in the prosperity of this
51 region, accompanied by acceptance of their responsibility for stewardship of the
52 community and region. Our vision statements for Each Individual are:

53 • CHILDREN - In 2045, the welfare of children is of critical importance to our well-being.
54 Creating and sustaining public and private initiatives that support family life are among
55 our highest priorities.

56 • EDUCATION - In 2045, education, in its broadest definition, stands as the core of our
57 commitment to each other. Life-long learning is the critical ingredient that enables the
58 residents of this region to meet the responsibilities of citizenship, to gain pleasure from a
59 rich cultural and social life, and to adapt to new ideas, new technologies, and changing
60 economic conditions. Our commitment to education is a commitment to equipping all
61 people with the means not only to survive, but to prosper.

62 • PARTICIPATION - In 2045, all residents, old and young, rich and poor, men and
63 women, minority and majority, are supported and encouraged to be well-informed and
64 active participants in the civic life of their communities and the bi-state region. Ours is a
65 region that thrives on interaction and engagement of its people to achieve community
66 objectives.

67
68 **OUR SOCIETY:**

69 The ability to work together is the hallmark of great communities and flourishing societies.
70 Our vision statements for Our Society are:

71 • VITAL COMMUNITIES - In 2045, communities throughout the bi-state region are
72 economically vital, socially healthy and responsive to the needs of their residents.
73 Government initiatives and services have been developed to empower individual
74 communities to actively meet the needs of their residents. The economic life of the
75 community is inseparable from its social and civic life.

76 • SAFETY - In 2045, personal safety within communities and throughout the region is
77 commonly expected as well as a shared responsibility involving citizens and all government
78 agencies. Our definition of personal safety extends from the elimination of prejudice to the

79 physical protection of life and property from criminal harm, to hazard mitigation and
80 preparation for and response to natural disasters.

81 • **ECONOMY** - In 2045, our bi-state regional economy is dynamic and diverse, with
82 urban and rural economies linked in a common frame. Planning and governmental action
83 have helped create conditions that support the development of family wage jobs in
84 accessible centers throughout the region.

85 • **CIVIC LIFE** - In 2045, citizens embrace responsibility for sustaining a rich, inclusive
86 civic life. Political leadership is valued and recognized for serving community life.

87 • **DIVERSITY** - In 2045, our communities are known for their openness and acceptance.
88 This region is distinguished by its ability to honor diversity in a manner that leads to civic
89 cohesion.

90 • **ROOTS** - In 2045, our history serves us well, with the lessons of the past remembered
91 and incorporated in our strategies for the future. Knowledge of our cultural history helps
92 ground social and public policy in the natural heritage we depend on and value.

93 **OUR PLACE:**

94 We are committed to preserving the physical landscape of the region, acknowledging the
95 settlement patterns that have developed within it, and supporting the economy that
96 continues to evolve. We live in a varied and beautiful landscape. Our place sits at the
97 confluence of great rivers—the Columbia, Lewis, Sandy, and the Willamette and its
98 tributaries, which dominate the landscape. This is a region of water, volcanic buttes, and
99 forest-clad mountains and hills. Our vision statements for Our Place are:

- 100 • **A LIFE IN NATURE** - In 2045, this region is recognized as a unique ecosystem, known
101 for the intelligent integration of urban and rural development which seeks to:
102 – improve air and water quality, and increase biodiversity;

103 – protect views of Mt. Hood, Mt. St. Helens, Mt. Rainier, Mt. Adams, Mt.
104 Jefferson, and other Cascade and coastal peaks;
105 – provide Greenspaces and parks within walking distance of every household;
106 – assure a close and supportive relationship among natural resources, landscape, the
107 built environment, and the economy of the region; and
108 – restore ecosystems, complemented by planning and development initiatives that
109 preserve the fruits of those labors.

110 • **RURAL LAND** - In 2045, rural land shapes our sense of place by keeping our cities
111 separate from one another, protecting natural resource lands and supporting viable farm
112 and forest resource enterprises, and keeping our citizens close to nature, farms, forests, and
113 other resource lands and activities.

114 • **DOWNTOWNS** - In 2045, downtown Portland continues to serve an important
115 defining role for the entire region. Historic urban centers such as Ridgefield, Camas,
116 Vancouver, Gresham, St. Helens, Beaverton, Hillsboro, Lake Oswego, Oregon City,
117 Molalla, Woodburn, and others throughout our bi-state region are an important part of
118 sub-regional identity. In addition, investment, both public and private, is focused in our
119 historic and our new urban centers throughout the region. This pattern of investment and
120 renewal continues to be an important part of our strategy for building and maintaining
121 healthy communities.

122 • **VARIETY IN OUR COMMUNITIES AND NEIGHBORHOODS** - In 2045, our
123 region is composed of numerous distinct communities. Each community provides a wide
124 variety of healthy, appealing, and affordable housing and neighborhood choices. They are
125 physically compact and have distinct identities and boundaries. Public space exists in every
126 community, and serves as the stage for a rich and productive civic dialogue.

127 • **WALKING** - In 2045, residents of this region can shop, play, and socialize by walking
128 or biking within their neighborhoods. Walking, biking, or using transit are attractive

129 alternatives for a wide range of trips within neighborhoods, between important regional
130 centers, and outside of the urban area. This region is known for the utility of its non-auto
131 transportation alternatives.

132 • LINKAGES - In 2045, goods, materials, and information move easily throughout the
133 bi-state region. Manufacturing, distribution, and office employment centers are linked to
134 the transportation and communication systems in a comprehensive and coordinated
135 manner.

136 • EQUITY - In 2045, the tradeoffs associated with growth and change have been fairly
137 distributed throughout the region. Our commitment to managing growth is matched by
138 an equal commitment to social equity for the communities of today and tomorrow. The
139 true environmental and social cost of new growth has been paid by those, both new to the
140 region and already present, receiving the benefits of that new growth.

141 • GROWTH MANAGEMENT - In 2045, growth in the region has occurred, but it has
142 been managed so our citizens have maintained or improved their quality of life. Our
143 objective has been and still is to live in great communities, not merely big ones. Our
144 desire for separate communities is reflected in the Future Vision Map which depicts
145 settlement patterns. Carrying capacity and sustainability concepts help measure and track
146 progress toward maintaining a desired quality of life but they can not be used to set
147 population limits. Our successes in balancing our region's growth with its livability come
148 from a commitment to ongoing reviews of our past achievements combined with
149 appropriate actions to maintain and enhance our quality of life. The Values and Vision
150 Statements herein should be used to guide the establishment of new communities.

151 SUGGESTIONS:

152 Clearly, Metro has a critical role to play as planner, convener, monitor, and leader.
153 However, as in the past, the success we achieve in the future will be a collaborative
154 accomplishment. We have an unparalleled opportunity to create an environment of

155 consensus and predictability in the region for what Metro's planning and policy making
156 ought to accomplish. The full report of the Future Vision Commission contains
157 suggestions for acting on each vision statement.

158 Perhaps the most critical implementing step is Metro's commitment to a continuing
159 dialogue with the citizens of our greater region to address 21st century problems and issues.
160 An annual review of the region will allow us to promote, lead, and engage citizens in an
161 ongoing discussion of our future. The relevant question is not "when" carrying capacity
162 will be exceeded, but "how" we will collectively restore, maintain, and enhance the
163 qualities of the region.

164 As a region, our aspiration is to match the spectacular nature of our landscape with an
165 equally spectacular and regular civic celebration of our sense of the region—truly our sense
166 of place. For it is only through the creation of a shared and far-reaching culture of this
167 place that our accomplishments will match our aspirations. Future Vision is a work in
168 progress – a challenge to future generations to think ahead and make decisions.

Appendix D: Parks, Open Space and Recreation

Metro has taken significant steps to establish a regional system of parks, natural areas, open spaces, trails and greenways. However, there are additional measures that can be taken to build on this progress.

- Metro needs to develop an adequate and stable funding base in order to better fulfill its responsibilities for assembling and managing significant components of the publicly owned portion of the Regional System. A long range funding needs analysis should be considered by the Metro Council. The Council may then begin policy discussions as to how best to address funding needs of the Regional System.
- Metro should work with other park providers to better define roles and responsibilities related to the protection and management of the regional system. Cooperation is essential for effective protection and management of the regional system.
- The Open Spaces Acquisition Refinement Process began to articulate specific protection objectives and boundaries for a subset of regionally significant natural areas and open spaces, and interconnecting trail, greenway, and wildlife corridors. This process must be completed for all priority areas identified in the *Metropolitan Greenspaces Master Plan* and will involve a variety of inventories and technical studies as identified in the Implications Section of this chapter.
- The *Urban Growth Management Functional Plan* began the process of developing performance standards to protect water quality in the region's rivers and streams and for floodplain management. A model zoning ordinance is being prepared to apply some standards to local comprehensive plans and implementing regulations. These will complement the effort to protect the Regional System. However, additional work is needed to assure healthy aquatic systems and compliance with state and federal water quality standards. The Watershed Management and Regional Water Quality Chapter of this Framework Plan should be reviewed for a discussion of these issues.
- The *Urban Growth Management Functional Plan* also calls for protection of Fish and Wildlife Habitat Conservation Areas. However, relevant provisions are referenced in the *Functional Plan* as recommendations to local governments, not as requirements. Much work also needs to be done to define the boundaries of Fish and Wildlife Habitat Conservation Areas and to develop performance standards for their protection. Among the required work projects is a Regional Goal 5 Inventory and Economic, Social, Environmental and Energy (ESEE) consequences analysis. There is a very direct relationship between this component of the *Functional Plan* and protection of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways.

In order to implement the policies listed in Chapter 3, the following actions will be included in future Metro programs and/or implemented through joint agreements between Metro and local

parks, open space and recreational providers and/or through a Metro functional plan which may include recommendations and requirements for local implementation.

The following is a discussion of policy implementation and regulation issues related to the provision of parks, open spaces, and recreational facilities by Metro and local governments.

Inventory and Identification of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways- Policy 3.1, 3.1.1, 3.1.2, 3.1.3

Metro will lead the effort to inventory and identify regionally significant parks, natural areas, open spaces, trails and greenways. This inventory will be based on scientific and social data, and will result in the identification of areas that protect water quality, fish, wildlife, and botanical diversity, and provide opportunities for natural resource dependent recreation. To accomplish this Metro shall:

1. Update the regional natural areas inventory and mapping project every five to ten years, including field verification and data collection as resources allow.
2. Use local park master plans and comprehensive land use plans to assist in the inventory process.
3. Identify corridors that provide or have the potential to provide connections between sites for wildlife and people
4. Inventory surplus government lands and tax-foreclosed properties within each jurisdiction on a regular basis and evaluate their potential for inclusion in the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways, or local park systems.
5. Identify portions of the region deficient in natural areas and identify opportunities for major restoration programs in these deficient areas. Criteria to be used in assessing restoration potential include:

Scientific Criteria

- Feasibility of ecological restoration
- Connectivity potential
- Sustainability of ecosystem relative to adjacent land use
- Significance of contribution to other beneficial environmental functions (i.e., water quantity/quality, floodplain protection)

Social Criteria

- Public accessibility.
- Linkages to regional and local trails systems

- Community support for projects
- Consistency with land use plans
- Ownership

Local government cooperation will be needed to help Metro identify and inventory the regional system of parks, natural areas, open spaces, trails and greenways. It is recommended that local Governments:

1. Assist in identifying corridors to link the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways.
2. Assist in the development and application of criteria to determine Regional Significance of existing locally owned parks, natural areas, trails and greenways.

Protection of a Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways- Policy 3.2, 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.2.8

Metro will protect the regional system by adopting a functional plan and by using existing and new tools. Metro shall:

- Adopt a functional plan which:
 - identifies and delineates the components of a regional system of interconnected Parks, Natural Areas, Open Spaces, Trails and Greenways for wildlife and people (the "Regional System"). Both scientific and social criteria will be considered in selecting components.
 - identifies and delineates natural corridors which link components of the regional system.
 - provides guidance to local governments to achieve basic regulatory protection of privately owned components of the Regional System. Subject to the Oregon Forest Practice Statutes, an Urban Forest Practices Ordinance should be considered as a strategy which could protect natural resources values while allowing sustained harvest from privately owned components of the regional system.
- Include a regional trails component in the Regional Transportation Plan.
- Work with local governments, citizens, and landowners to protect and acquire components of the regional system through a variety of strategies including:
 - Development and implementation of programs that support purchase of land in fee simple or conservation easement interest, encourage gifts and dedication of land, enable transfer of ownership or management authority including but not limited to surplus and tax foreclosed properties, mitigation projects, reclaimed and restored sites.
 - Advocate for state and federal funding support.

- Develop and distribute educational materials and provide opportunities for owners of components of the regional system to learn about and pursue appropriate land management practices and stewardship on a voluntary basis. Provide technical assistance related to natural resource management issues as financial and staff resources allow
- Develop and implement incentives which encourage protection of natural resources on components of the regional system including restoration and enhancement grants, public recognition, tax reduction options and transfer of development rights.
- Advocate for the protection, restoration and enhancement of regionally significant natural, cultural and recreational resources at the local, state and federal level.
- From time-to-time convene focus groups to generate and/or update urban designs and best management practices that protect components of the regional system.

To protect the regional system, local government will be encouraged to acknowledge Metro's functional plan and local Governments shall:

- Acknowledge the regional system by amending local comprehensive plans and related land use ordinances.
- Seek to avoid fragmentation of components of the regional system by transportation and utility rights of way and easements.

Local Governments are encouraged to:

- Identify and establish local systems of parks, natural areas, open spaces and trails which connect neighborhoods to components of the regional system.
- Assist with the identification of components of the regional system.
- Participate in acquisition, education and incentive efforts.
- Assist and coordinate land dedications through local development processes.

Local Governments and Metro should:

- Encourage and/or initiate an effort to revive, update, invigorate and implement the vision of the Willamette River Greenway.

Management of Publicly-Owned Portions of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways. Policy 3.3, 3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5.

Metro plans to acquire and manage the regional system of parks, natural areas, open spaces, trails, and greenways. To manage the regional system, Metro will need to prepare master plans/management plans to balance protection and provide recreational and educational opportunities for citizens. To accomplish these goals Metro shall:

- Select and prioritize, with the assistance of local governments and citizens, components of the Regional System appropriate for acquisition.
 - Criteria which will be considered in natural area site selection include: habitat value, contributions to water quality protection, unique natural features, relative rarity of ecosystem, size, restoration potential, linkage to other components of the regional system, scenic resources, public accessibility, recreation potential, education potential, public support, partnership potential, cultural resource value, imminent loss of opportunity.
 - Criteria which will be considered in trail selection include: inclusion in local comprehensive plans and parks master plans, potential to create a loop trail, linkage among components of the Regional System and to inter-regional trails, closing gaps in the Regional System, length and continuity of trail, value to wildlife, local support, imminent loss of opportunity, abandoned rail corridors, access to river routes.
- Provide local governments the opportunity to acquire components of the Regional System with their financial resources.
- Provide local governments and other governments agencies the opportunity to transfer ownership and/or management responsibility of components of the Regional system to Metro.
- Develop and adopt master/management plans to guide development, operation, maintenance and other related activities at Metro owned or managed components of the Regional System prior to opening for formal public use. Master/Management plans shall seek to balance the protection and enhancement of natural resource values with the provision of facilities and programs for public use and enjoyment. The *State Comprehensive Outdoor Recreation Plan* shall be considered in the development of master/management plans.
- Provide, primarily, natural resource-dependent recreation and education opportunities at components of the Regional System. Examples of natural resource-dependent recreation and education include:
 - hiking, walking, jogging
 - biking, mountain biking
 - picnicking (group/family)
 - motorized boating, water skiing
 - non-motorized boating (canoe, raft, kayak, etc.)
 - angling
 - wildlife viewing
 - camping (group/family)
 - photography
 - golf
 - cultural/environmental education and interpretive programs

Examples of potential facilities include:

- trails (surfaced and natural)
 - picnic areas (including shelters)
 - roads/parking
 - sanitation facilities
 - water, electric, and other utilities
 - boat ramps/boat rental/marina
 - accessible angling docks
 - wildlife viewing blinds
 - campgrounds
 - golf courses
 - related maintenance, support and public safety facilities
 - nature centers/public information kiosks
 - historic structures
- Determine the funding needs, required funding levels, size, timing and source of funding to support Metro managed components of the Regional System. A stable funding source should be identified and implemented to supplement user fee and entrepreneurial resources and to support acquisition, restoration, planning, development, operation, maintenance, incentives, and educational programs.
 - Encourage and pursue gifts of land, cash, other assets, services, labor, etc. to support the protection, acquisition, development, operation and maintenance of components of the Regional System. The creation of a regional parks and greenspaces foundation should be pursued to facilitate this effort.
 - Pursue public and private grants and advocate for the creation and funding of grant and aid programs for local and regional parks at the state and federal level to supplement local and regional investments.
 - Provide financial assistance to local governments and other appropriate organizations for acquisition, restoration and development of local systems of parks, natural areas, open space, greenways and trails and related programs that support or compliment the Regional System, as financial resources allow.

Local Governments shall:

- Determine the propriety of continued ownership and management of components of the Regional System or the acquisition of additional privately owned components of the Regional System with local financial resources.
- Develop and adopt master/management plans to guide development, operation, maintenance and other related activities at local government managed components of the Regional System prior to opening for formal public use. Master/Management plans shall seek to balance the

protection and enhancement of natural resource values with the provision of facilities and programs for public use and enjoyment. The *State Comprehensive Outdoor Recreation Plan* shall be considered in the development of master/management plans.

- Provide, primarily, natural resource-dependent recreation and education opportunities at local government owned and managed components of the Regional System.
- Determine the funding needs and levels as well as size, timing and source of funding mechanisms which support components of the Regional System owned and managed by local governments.
- Consider partnerships and cooperative efforts with Metro to enhance protection, acquisition, planning, development, operations and maintenance efficiencies, management consistency, funding equity and public use/enjoyment of components of the Regional System.

The Provision of Community and Neighborhood Parks, Open Spaces, Trails and Recreation Programs. Policy 3.5, 3.5.1, 3.5.2.

Metro recognizes local governments and park and recreational districts as the primary provider of community parks, neighborhood parks, recreational centers, sports fields and associated recreational programs and locally significant open space, trails and greenways for their citizens.

Local Governments and park and recreation districts are encouraged to:

- Develop, adopt, and implement Master Plans for local systems of community parks, neighborhood parks, open spaces, greenways, recreation centers, sports fields and associated recreation programs which:
 - are responsive to citizen needs and desires
 - result in the provision of a park, trail, sports field, recreation center or open space within one half of one mile of all residents.
 - consider the State Comprehensive Outdoor Recreation Plan (SCORP)
 - link neighborhoods with the regional system'
- Pursue, secure and appropriate sufficient funds to implement programs to plan, acquire, develop, operate and maintain local systems of parks, open space, greenways, recreation centers, sports fields and associated recreation programs.
- Require new developments to protect important natural resources and dedicate lands to provide recreational opportunities consistent with local system master plans.
- Design park and recreation facilities in such a way as to facilitate their security and policing.
- Work cooperatively with school districts to fulfill recreation needs for such facilities as sports fields, indoor basketball, volleyball, and other courts and facilities, swimming pools, and joint use of facilities for recreation, day care and community center programs.

- Encourage or require private open space and recreational facilities in high density residential projects, mixed use projects and major employment complexes to meet a portion of the open space and recreational needs of residents, employees and visitors.
- Encourage water districts, utility companies and other public agencies to provide for appropriate recreational uses of their respective properties and right-of-ways.

Metro will create a parks deficiency map, and provide technical assistance to local cooperators.

Subject to financial and staff resource availability and as requested, Metro shall:

- Generate and provide information related to park deficient areas.
- Provide technical advice to local park providers related to the protection, restoration or enhancement of natural resources at parks, open spaces, trails or greenways.
- Provide supplemental financial resources for acquisition and development of local park projects which support or complement the Regional System.
- Provide grants for restoration and environmental education projects.

The Participation of Citizens in Environmental Education, Planning and Stewardship Activities. Policy 3.6, 3.6.1, 3.6.2.

Citizens play a key role in Metro's role in protection and management of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways. To facilitate public participation, Metro shall:

- Provide opportunities for public involvement in issues related to the selection, acquisition, development and management of the regional system.
- Implement a volunteer services plan to encourage individuals, groups, and businesses to participate in the restoration, enhancement, operations and maintenance of resources, facilities, programs and events.
- Appoint and staff a Regional Parks and Greenspaces Advisory Committee composed of citizens from throughout the region.
- Develop, promote and deliver programs which enhance citizens' understanding, appreciation, use and enjoyment of natural, cultural and recreational resources.
- Host special events which enhance public use and enjoyment of regional system components.

Utilize a variety of media to convey information to citizens regarding the regional system, and associated facilities, benefits, programs and events.

Metro encourages local Governments and park and recreation districts to involve citizens in the planning, protection and management of the local park systems. They are encouraged to:

- Provide ongoing opportunities for public information sharing and citizen involvement in development and implementation of local system master plans, facility operations and recreational programming.

Local Governments and Metro should:

- Work together to assure that citizens are aware of the benefits of parks and recreation, and recognized as comparable in importance to public safety, education, sanitation, water supply, land use and transportation services.

Appendix E: Water Supply

In order to implement the regional aspects of the Regional Water Supply Plan, the Metro Council may consider adopting requirements consistent with, but not necessarily limited to elements of the Regional Water Supply System.

Requirements that could be considered by the Metro Council could include:

- Water Conservation requirements
- Land Use regulations for protection of regionally significant well fields or underground storage facilities
- Regulations concerning the sequencing of regionally significant new supply and transmission lines

Appendix F: Watershed Management and Water Quality

Requirements to protect regionally significant watershed and water quality will be completed as a functional plan in order to protect regionally significant Goal 5 resources.

These requirements have yet to be developed.

Appendix G: Natural Hazards

Requirements to protect regionally significant features from natural disasters will be completed as a functional plan.

These requirements have yet to be developed.

Appendix H: Model Codes

As mandated by its Charter, Metro is developing model codes. These land use zone codes are for use by cities and counties of the region, but are not required. They are intended to show ways to implement elements of the Regional Framework Plan, especially the Growth Concept and the Urban Growth Management Functional Plan. The model codes will be available in a workbook format and include the following:

- **Mixed Use Zone**
- **Generic Single-Family Residential Zone**
- **Generic Multi-Family Zone**
- **Generic Commercial Zone**
- **Generic Employment Zone**
- **Generic Industrial Zone**
- **Land Division Code**

For each of the zones, a description of applicable Metro requirements will be included as well as purpose and intent ideas, suggestions for permitted and conditional uses and potential development standards, emphasizing clear and objective standards.

These codes are not available at this time, but are expected to be in draft form by June, 1997.

APPENDIX I: Background to Development of 2040 Framework

RUGGOs and the 2040 Growth Concept

The Regional Urban Growth Goals and Objectives (RUGGOs) were developed beginning in 1989, when concerns were voiced about long-term management of the urban growth boundary for the region. While the urban growth boundary was designed to be moved as growth occurred within its historic bounds, how that growth occurred was of great interest. RUGGOs, developed in cooperation with local governments, provided an articulation of the directions the region wanted to take as it grew. (The Regional Framework Plan has incorporated RUGGOs with some amendments to address policy and consistency issues.) When developed, RUGGOs included such goals as maintaining a compact urban form, creating a balanced transportation system and assuring that market-based preferences are not eliminated by regulation. However, these statements, while laudable, did not provide a blueprint for how to achieve these goals. Local governments in particular were concerned about how these statements would be applied to them. RUGGOs were adopted with the provision that no goal would be directly applicable to a city or county in the region, and that a specific articulation of the goals would be developed to assess the stated directions. From this the Region 2040 project began.

Region 2040

Region 2040 began as a way to define the directions established by the Regional Urban Growth Goals and Objectives. It was also intended to determine how Metro should best manage its urban growth boundary, and, ultimately, provided a major contribution to the Regional Framework Plan.

Public values and tradeoffs

The first step was to gauge people's values and preferences about their region. Through a combination of random sample surveys and an extensive public involvement process, Metro learned that there is strong support for investment in a mixture of transit systems instead of funding roads alone, and a preference for growth in developed areas over new areas. However, the public also indicated a strong preference for maintaining neighborhoods, and expressed concern regarding increases in density. While people held negative views about density increases that change the character of neighborhoods, they were willing to accept limited changes in their neighborhoods and increased development adjacent to transit and existing commercial development.

Opinions about the tradeoffs associated with managing growth covered the spectrum, indicating that a successful growth management policy must include a range of options. There was most agreement on the tradeoff involving building roads for cars versus building additional transit systems, with only 14 percent saying building roads was significantly more important than transit.

Creating and analyzing the alternatives

Based on research and public comment, Metro developed a status quo "Base Case" scenario and three growth concepts, then analyzed them for impacts on land consumption, travel times and distances, the effects increased density would have on air quality, open space, and different types of urban forms.

The Base Case assumed growth would occur if development took place in land-use patterns similar to that experienced in the region from 1985 to 1990. An important component of the Base Case was that it looked at the land supply and demand in five-year increments. When there no longer was a 20-year land supply within the UGB, the boundary was assumed to move outward. In addition, when congestion occurred, roads were widened up to a limit of five lanes for arterials and six for freeways.

BASE CASE

Continue Past Trends

354,000 acres in UGB



What we examined:

Urban Form: Greatest expansion of UGB; continuation of development patterns occurring between 1985 and 1990.

Major Roads: 10,780 lane-miles.

Transit: 9,575 daily service-hours, serving almost 47 percent of households.*

What happened:

Congestion: Slightly less than 9 percent of roadways having significant peak-hour congestion due to greatest amount of road construction.

Transit ridership: 266,920 daily riders.

Trip length: Greatest increase in total vehicle miles traveled (VMT); VMT per capita within the UGB would increase 5% over 1990.

* From Region 2040: Recommended Alternative Technical Appendix "Intra-UGB Selected Performance Measures" table.

Figure 1 Base Case

Base Case findings

The Base Case, in order to accommodate forecast growth consistent with the development patterns of the 1970's and 1980's, needed the expansion of the urban area by about 121,000 acres – an increase of about 70 percent from the current UGB. Of the total expansion, about 98,000 acres were considered to be vacant, buildable acres, of which about 64,000 acres were zoned exclusive farm use.

However, only about 50 percent of the added land would be developed, as the pattern of development within the current UGB in the 1980's had a similar amount of privately owned parcels which were undeveloped. About 70 percent of the housing were assumed to be single family detached (the same as in 1990) and the remaining 30 percent assumed to be multi-family.

This development pattern would mean that the current UGB would expand to North Plains, extend halfway to Sandy, Newberg and expand several miles northwest on Highway 30 towards Scappoose.

Assuming that this land would be serviced by adequate roads, sanitary sewer and water, employment was forecast to move outward as well, bringing jobs to those living in outlying areas, but requiring more people to drive and possibly making inner city residents less accessible to jobs. Residential and employment development would be at low densities with a substantial majority (64 percent) developed in suburban, auto-oriented development patterns. Reductions in the population and vitality of the central city were expected with this pattern as jobs and population moved outward. Comments from law

enforcement, fire safety and emergency medical response representatives from the region concluded that because of the substantial increase in service costs and response times, the Base Case development pattern should be avoided.

The Base Case assumed the most amount of roads built and assumed that three new freeways – the Sunrise Corridor, the Westside Bypass and the Mt. Hood Parkway would be built. Forecasted congestion resulting from the land uses and with added roads in the Base Case was about the same as the recommended alternative, but with much fewer roads built in the recommended alternative and much higher transit use in the recommended alternative.

While most areas added to the UGB in the Base Case were assumed to have a somewhat balanced mix of housing, jobs and services, the low development densities made transit service impractical. As a result, auto travel increased and vehicle miles traveled per capita grew by 5 percent over 1990 levels.

The non-auto share of regional travel for the Base Case was about 7 percent of all trips – lower than any of the growth concepts. Bicycle and pedestrian travel in the Base Case dropped to less than 5 percent of all trips, a decrease from the 1990 share, and less than any of the other growth concepts.

The Base Case also had lower transit ridership than any of the other three growth concepts. Radial high-capacity transit routes, such as the Banfield and Westside MAX lines, drew average weekday boardings of only 13,100 to 26,100 riders, which is lower than today's daily ridership. Furthermore, the Base Case had the lowest percentage of households and the lowest percentage of employment served by transit, 47 percent and 79 percent respectively.

The low transit ridership in the Base Case reflects both the dispersed development pattern assumed in the modeling and the absence of pedestrian enhancements and restricted parking that were assumed for the other three concepts. These factors were excluded from the Base Case to more accurately reflect the relative ease of parking that typically accompanies low density development.

Concept A findings

Concept A was based on “growing out” by adding land for residential development to the urban growth boundary. Under Concept A, existing neighborhoods did not experience significant change, and new ones were added both inside and outside the current UGB. In addition, Concept A expanded the transit and highway systems, had the highest congestion, highest air pollution, lowest transit ridership, most dispersed population and highest cost for water service.

Concept A included a more modest expansion of the urban area when compared with the Base Case. It assumed a UGB expansion of about 25 percent, about 55,000 acres, of which about 18,000 acres are zoned for exclusive farm use. Single family lots were assumed to be in the 7,500 - 9,000 square foot range, (about 10 people per acre). Existing vacant single family zoned areas were assumed to have no

increase in density from existing zoning. About 74 percent of the housing would be single family with 26 percent multi-family. About sixty-two percent of the residential development was assumed to occur in relatively low density development with little or no transit service because of the cost of service. Along transit corridors, it was assumed that transit service would be frequent and people would have easy access to it. A few main streets and other mixed use developments were assumed, particularly in areas where a high level of transit service was likely. Almost half of the employment growth was forecast to occur in low density areas away from transit and not within city centers. About 4,500 acres of land within the current UGB were assumed to be acquired as new public open spaces.

The road system assumed for Concept A resembled the Base Case in that the three freeways were assumed to be built, but slightly fewer lane miles of other road improvements were included. A radial, high capacity transit system centered on downtown Portland with service to the south, north east, west, southwest and two to the southeast were included. Detailed transportation modeling results from Concept A were similar to the Base Case results. However, compared to the Base Case, the scale of the regional road network was reduced, with a total of 814 additional lane miles added to the existing network. This represents almost a 9 percent increase over 1990, compared to a 16 percent increase in the Base Case. Total transit service hours nearly tripled the 1990 level of 4,983 hours (12,300 daily service-hours).

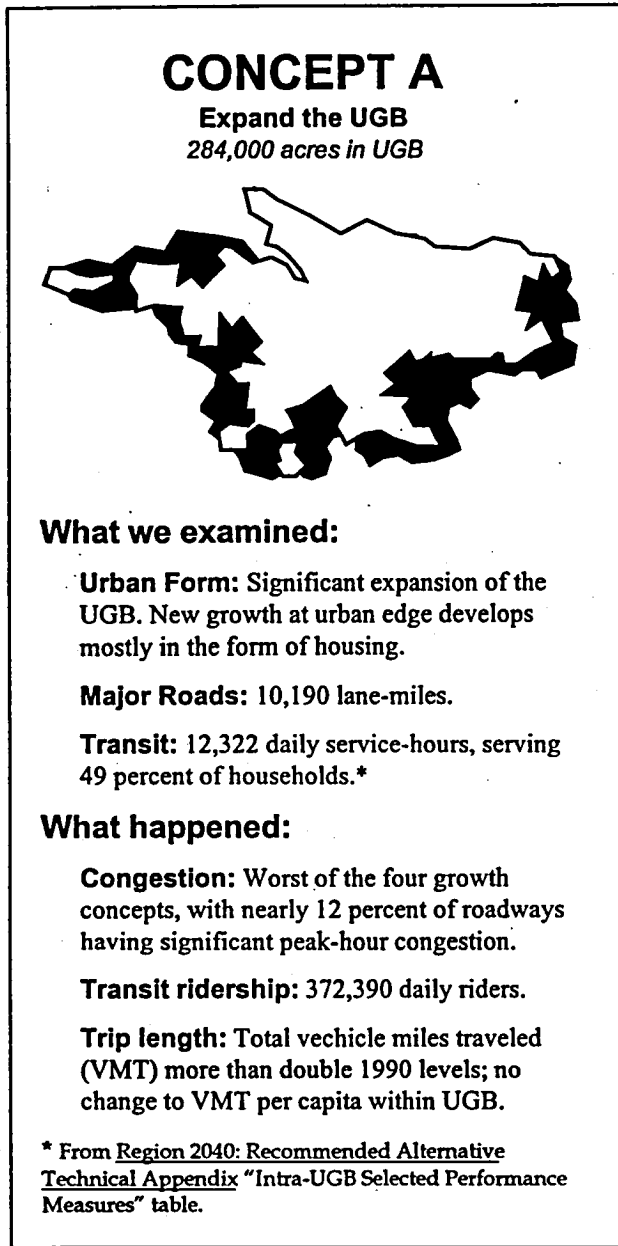


Figure 2: Concept A

Despite these significant improvements to the regional system, Concept A experienced the worst congestion, second lowest transit ridership and the second highest total vehicle miles traveled. While Concept A shows region-wide arterial street congestion, the worst congestion was along Washington County's widely spaced suburban streets. The more closely spaced and fully integrated network of arterials in East Portland and urban Multnomah County were the least congested.

Much of the increase in congestion and vehicle miles traveled was attributed to the assumed separation of homes and businesses. Most areas added to the UGB in this concept were single-family neighborhoods, with few nearby services or jobs. As a result, the arterial streets linking these new neighborhoods to jobs and services were much more congested for longer time periods

than in the other growth concepts. The mostly single-family neighborhoods added along the urban fringe in this concept would be difficult to serve with transit, and the lack of nearby services and jobs discouraged bicycle and pedestrian travel. Of the four growth concepts, Concept A had the second smallest share of bicycle and pedestrian trips as a percentage of total person trips.

Concept A had the second lowest percentage of households (49 percent) and the second highest percentage of employment (83 percent) served by transit. It also had the second lowest daily transit ridership (372,400) of the four growth concepts. Ridership was highest along transit corridors and main streets and to regional centers. The lowest ridership levels were in low-density residential areas with

limited service. Compared to the other concepts, transit coverage was somewhat more limited in Concept A, reflecting the difficulty of serving new low-density neighborhoods along the urban fringe.

The results of the transit ridership analysis showed that restricting the UGB expansion area to include only residential growth created major travel demand into the region for employment and for daily services. These results underscore the importance of balancing jobs and housing in communities and centers as a means to shorten the distance traveled between destinations throughout the day.

Concept B findings

Concept B was oriented to “growing up” by increasing densities within the current boundary. The primary feature of Concept B was that 45 percent of new development was accommodated in centers and corridors with high transit levels. In turn, those center and corridors were designed with higher densities. It would require a shift for more multi-family housing units and smaller single-family lot sizes. Concept B would, by design, conserve the highest number of natural areas, open space (about 7,000 acres) and rural land. It would have the most transit ridership; however, it also would have the most light rail constructed and the most hours of transit service.

In order to accommodate the forecasted growth, while not moving the UGB, Concept B assumed a single family/multi-family split of 60 percent single family, 40 percent multi-family. The average lot size of newly created lots was assumed to be 5,800 square feet (as compared with 7,300 in Concept A).

Residential densities would average 12 dwelling units per acre. Residential redevelopment was assumed to occur at rates double those of Concept A (11,300 acres of redeveloped lands compared with about 6,000 acres in Concept A or C). Mixed use areas - the Central City, regional centers, town centers, main streets, were assumed to accommodate much more growth – both housing and jobs – than in other concepts. Concept B also assumed the most transit improvements and no freeway additions.

Concept B had the fewest roadway improvements, with less than a 5 percent increase in lane-miles over the 1990 level. Total transit hours of service for Concept B were expanded to 13,192 hours – almost triple the 1990 level, but only 7 percent more than Concept A. Concept B accommodated growth through development of existing land and infill rather than through urban growth boundary expansion.

Despite having the highest level of transit, bicycle and pedestrian travel of any growth concept, Concept B had the second highest level of congestion. More than 11 percent of all major urban roadways were severely congested compared to less than three percent in 1990. Freeway congestion in this concept was

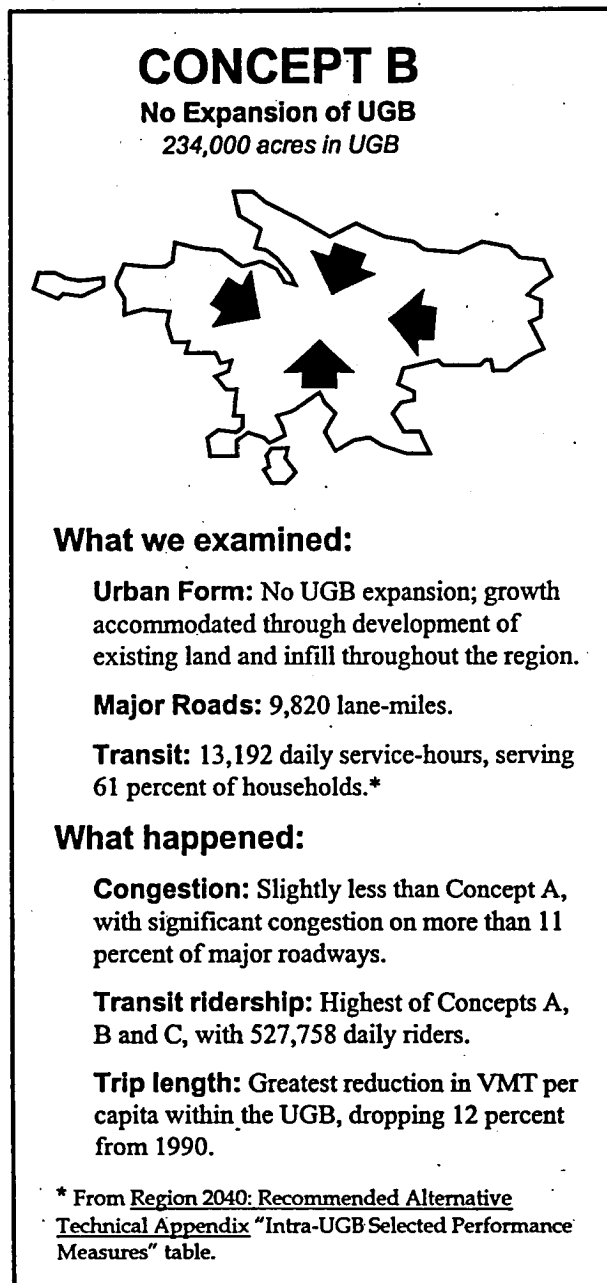


Figure 3: Concept B

limited to isolated bottlenecks. Most of the congested freeways were flanked by equally congested arterials. Vehicle miles traveled dropped below 1990 levels by 12 percent, the lowest of any growth concept.

Concept B had the highest percentage of households (61 percent) and the highest percentage of employment (87 percent) served by transit. Increased bus service drew more riders than in the other growth concepts, especially along main streets and transit corridors. As in Concept A, bus ridership was highest east of the Willamette River. However, with the exception of a few transit corridors and main streets, bus service west of the Willamette River was more difficult to provide because of topography and lower household and employment densities.

Radial high-capacity transit corridors into downtown Portland had significantly greater daily ridership than circumferential routes or extensions to points along the urban edge. The major radial corridors, such as the Banfield and Westside MAX lines, ranged from 25,600 to 81,000 daily boardings. Circumferential routes, such as along Highway 217, ranged from 6,400 to 23,100 daily boardings.

The significant growth in transit, bicycle and pedestrian travel, along with predicted widespread congestion in Concept B, underscores the importance of having land uses easily served by transit and a balance of road and transit improvements.

Concept C findings

Concept C combined aspects of A and B, but accommodated about one-third of the growth in neighboring "satellite" cities. These areas would become relatively self-sufficient communities with an even mix of jobs and housing. About two-thirds of the people who live in the satellite cities would work there also. Concept C assumed that the UGB would increase by about 23,500 acres, about half of these lands currently zoned for exclusive farm use. The split of single family to multi-family was assumed to be 69/31, about that of 1990 with an average new lot size of 8,300 square feet (about that of 1990). Because a substantial amount of the growth was assumed to occur outside the region, accommodating expected growth was relatively easy. Concept C also assumed that sufficient jobs to accommodate the population increases would occur within the satellite cities. Concept C would achieve the lowest congestion and have the second highest transit use. Cost for developing Concept C would be high and implementation difficult.

Unlike the other concepts, Concept C directed a substantial number of jobs and houses to existing neighboring "satellite" cities just outside the current UGB. This growth strategy relied on green corridors to limit access to, and minimize urban development pressure on, resource lands adjacent to transportation corridors that link neighboring towns to regional centers. Green corridors also helped to prevent neighboring cities from expanding toward the Metro UGB, and therefore helped to maintain distinct communities.

In general, Concept C performed well in several categories because of a smaller population increase in the metro area, with a slight reduction in vehicle miles traveled, somewhat reduced trip lengths over current levels and relatively efficient roadway speeds. Congestion levels were the lowest of the four growth concepts, with slightly more than 8 percent of roadways having significant peak-hour congestion. Transferring one-third of development and population growth to neighboring cities outside the UGB accounted for the relatively lower congestion level. Vehicle miles traveled per capita within the UGB dropped by nearly 4 percent over current levels compared to 12 percent in Concept B. However, Concept C showed the largest increase in VMT per capita outside the urban areas as a result of traffic between the metropolitan area and satellite cities.

Of the four growth concepts, Concept C had the second largest share of bicycle and pedestrian trips as a percentage of total person trips, accounting for more than 5 percent of all trips. It also had the second highest percentage of households (58 percent) and the second lowest percentage of employment (83 percent) served by transit.

The modeling projected more than 437,000 daily transit riders in Concept C, exceeding Concept A, but significantly less than the nearly 530,000 riders projected for Concept B. Radial high-capacity transit corridors within the main urban area of Concept C would have higher ridership than Concept A, but less than Concept B, with daily boardings ranging from 27,000 to 59,000 riders. Circumferential light-rail routes on Highway 217 and I-205 had lower ridership, with about 12,000 daily boardings.

The evaluation of Concept C found that if growth was directed away from the metropolitan area and to neighboring cities, there would be less need for transportation improvements in the metropolitan area, but more need for transportation improvements in the tri-county area. Some satellite cities have minimal connections to the main urban area and would require major investments to provide adequate access. Other

towns, such as Sandy and North Plains, have major highway connections that have already promoted suburban development. As a result, Concept C raises key policy issues about the mix of urban travel routes and rural land uses. Concept C analysis also points to the need to direct regional growth strategically, such as placing jobs near housing and providing office, retail, other commercial services and housing in higher-density, mixed-use centers that are pedestrian-friendly and served by transit.

Following is a summary table as well as statements describing what technical conclusions were reached concerning the alternatives.

Disperse Growth to Satellite Cities
257,000 acres in UGB



What we examined:

Urban Form: Slight expansion of the UGB, with growth encouraged in centers, corridors and neighboring cities.

Major Roads: 10,327 lane-miles.

Transit: 12,553 daily service-hours, serving 58 percent of households.*

What happened:

Congestion: Least of the three concepts, with slightly more than 8 percent of roadways having significant peak-hour congestion due to transfer of development and dispersal of 1/3 of population to neighboring cities.

Transit ridership: 437,178 daily riders.

Trip length: Slight reduction in VMT per capita within the UGB, with a decrease of nearly 4 percent over 1990.

* From Region 2040: Recommended Alternative Technical Appendix "Intra-UGB Selected Performance Measures" table.

Figure 4: Concept C

Table 1: Comparison of 1990 Conditions and Growth Alternatives

Category	Measures	1990	BC	A	B	C
Buildable Acres (No estimate of satellite acres)	Central City	39	48	67	100	67
	Regional Centers	134	273	369	507	403
	Sub Regional Centers	36	41	218	323	151
	Commercial Nodes	998	2,285	4,229	5,322	4,338
	Main Streets	7	8	127	791	342
	Transit Corridors	460	4,925	7,462	9,370	5,955
	Other	52,063	49,181	49,353	48,653	49,580
	New UGB	0	98,214	42,500	0	17,738
	Total	53,736	154,974	104,325	65,066	78,574
Distribution of Development	Central City	7%	5%	5%	7%	6%
	Regional Centers	1%	1%	2%	4%	4%
	Sub Regional Centers	1%	1%	1%	2%	1%
	Commercial Nodes	7%	9%	15%	17%	13%
	Main Streets	1%	1%	1%	3%	2%
	Transit Corridors	9%	18%	14%	21%	12%
	Other	71%	52%	46%	42%	44%
	New UGB	0%	8%	13%	0%	2%
	Satellites	3%	5%	5%	5%	16%
Location of Growth	% of growth in UGB	100%	93%	87%	100%	82%
	% of growth accom. by redevelopment	0%	0%	6%	18%	8%
	EFU Conversion (Acres)	0	63,900	17,200	0	11,400
	% of Employment on Industrial land	32%	43%	53%	33%	53%
Zoning	Single Family	59.0%	61.0%	57.0%	46.5%	51.5%
	Multi-Family	11.0%	11.0%	1.0%	5.0%	1.5%
	Commercial	7.0%	8.5%	1.0%	1.0%	1.0%
	Industrial	19.5%	16.0%	12.0%	10.0%	14.0%
	Mixed Use (commercial and residential)	0.0%	0.0%	24.0%	30.5%	27.0%
	Parks/Open Space	1.5%	1.0%	3.0%	5.0%	3.0%
	Public Facilities	2.0%	2.5%	2.0%	2.0%	2.0%
Density	People per Acre	8.9	7.9	9.8	12.4	9.2
	% High Density (centers) + 50 persons/acre	8.9%	7.4%	7.9%	11.2%	13.6%
	% Medium Density (corridors) 20-50 persons/acre	17.6%	29.1%	30.1%	43.0%	32.3%
	% Low Density (other) less than 20 persons/acre	73.7%	63.5%	61.9%	44.0%	54.2%
Housing	Single Family / Multi Family (percent)	70/30	70/30	74/26	60/40	69/31
Transportation (all measures inside Metro UGB)	Average VMT per Capita	12.4	13.04	12.48	10.86	11.92
	Mode Split: Auto/Transit/ Walk-Bike (percent)	92/3/5	92/3/5	91/4/5	88/6/6	89/5/6
	Lane Miles	5,304	6,777	6,377	5,557	6,116
	Transit Service Hours	4,965	9,575	12,322	13,192	12,553
	Congested Roadway Miles (PM peak hour)	150.5	505.6	682.0	642.6	403.9
Air Quality	CO Winter (Kg/day)	835,115	614,451	613,537	579,579	569,091
	CO Summer	574,708	528,601	525,133	496,017	487,188
	HC Summer	177,857	70,700	69,810	66,375	65,745
	NOx Summer	80,452	94,024	90,987	83,817	86,988
Water	Drinking Water Costs			Moderate	Low	Moderate
	Wastewater Costs			Moderate	Moderate	High
	Stormwater Costs			Moderate	Moderate	Moderate

The following summarizes the findings and directions that were concluded after the alternatives analysis. These conclusions form the technical basis for construction of the Growth Concept.

Land use

The land-use pattern inside the urban growth boundary is more important than the size or shape of the urban area. However, a compact urban region was generally less expensive to serve; required less transportation infrastructure; directed reinvestment to under-used areas inside existing urban areas; preserved more open space, farm and forest land; and resulted in better air quality.

Off-street parking is a major user of land in commercial areas.

Single-family homes and lots consume the most land. Small changes in new lot sizes can have substantial effects on the amount of land needed to accommodate growth.

Transportation

Overall vehicle miles traveled would increase in all the growth concepts, although vehicle miles traveled per capita would decrease under the more compact forms.

Land-use policies are essential and effective in reducing vehicle miles traveled, in encouraging non-auto transportation and in reducing congestion.

A greater mix of uses and strong regional centers resulted in less congestion and more transit ridership.

New regional highways should be evaluated on their ability to support planned regional centers.

A radial light-rail transit system functions as the backbone for regional transit and shapes the region's land-use form.

Transit success is linked to the ease of pedestrian travel, and pedestrian travel is made more practical by transit.

Pedestrian trips should be considered a basic element in virtually all urban designs.

Trips made by bicycles are important and should be treated quite differently than trips made by pedestrians.

Arranging transit and higher-density land uses together resulted in better light rail and overall transit ridership using fewer service hours.

Parking limitations, pedestrian amenities and land-use considerations were more effective in reducing vehicle miles traveled and increasing transit ridership in compact, more densely developed urban areas rather than lower-density land uses.

Areas with many small- and medium-sized arterials and closely connected local streets accommodated growth with less congestion than areas with larger, more widely spaced arterials and less connected local streets. Dense, well-connected street networks also benefited transit, pedestrian and bicycle travel.

Green corridors limited access to, and minimized urban development pressure on, rural lands adjacent to transportation corridors that linked neighboring towns to the nearest regional center. Green corridors also helped maintain distinct communities by preventing neighboring cities from expanding toward the Metro UGB.

Identifying urban connectors through rural areas minimized the impact of urban travel on rural land uses.

The density of the regional network should be expanded to accommodate areas of increased population and employment growth.

The assumptions of prior transportation plans should be re-evaluated, such as re-examining congestion and developing an updated plan around currently acceptable congestion levels.

More compact urban forms and land use patterns and increased opportunities for transit, bicycling and walking will contribute to significant reductions in vehicle emissions.

Urban centers worked best when connected by a set of multi-modal corridors that accommodated auto, transit, bicycle and pedestrian travel to varying degrees.

Employment areas and industrial areas worked best with more roadway connections, especially truck routes, and better access to the regional freight network via air, truck, rail and water.

Air quality

Forecasts for transportation-generated air pollution in the Base Case and the growth concepts show significant decreases in tons per day from 1990 levels for hydrocarbons and carbon monoxide. That type of air pollution is relatively small compared to total emissions.

Air pollution forecasts for the Base Case and the concepts show increased nitrogen oxides compared to 1990, although the Concept B provides a significant reduction from the base case.

In future years, because of vehicle emission improvements, non-transportation sources of hydrocarbons will tend to increase as the population also increases.

Social stability

Strong communities with a sense of place tend to be safer places for residents.

Compact areas can have faster emergency response times.

Effective affordable housing programs should be a component of urban growth management.

Employment

Estimates of supply and demand for employment land suggest that some areas are out of balance.

Suburban employment is likely to increase.

Housing

A balance of jobs and population for many sub-areas of the region does not exist today. The current Metro housing rule requires that one-half of land zoned residential must be for multi-family housing. This is more than would be built in any of the concepts, except for Concept B.

There are areas within the region with too little or too much land for single-family or multi-family housing.

Water, sewer and stormwater

Concept B has the lowest costs for water and sanitary sewer service.

Stormwater costs are indistinguishable among the concepts.

Concentration of development does have limitations. When growth can be accommodated using existing infrastructure, or incorporating replacements of infrastructure that has outlived its useful life, redevelopment and compact development can be substantially less expensive. When redevelopment requires major replacements of infrastructure that is still useful, it can become more expensive than development of vacant land.

Values

People realize this region is unspoiled compared to most other metropolitan areas. Because of this, they are apprehensive about change.

People love the accessibility of the car but think that transit, biking and walking should be made easier and more convenient.

People don't want any more density than is necessary in their neighborhoods.

The nature of growth

Much of the growth will come from in-migration.

The average age of the population will increase substantially and its ethnic diversity will increase.

Slowing growth

Slow-growth policies based on building limits have been unsuccessful elsewhere and appear to be counterproductive.

Current state law prohibits regulations that would stop or slow growth.

A good strategy is to respond to specific problems resulting from growth. This may have the effect of slowing growth compared to policies that simply accommodate all growth regardless of the costs.

Satellite cities

The effect of pushing growth into satellite cities whether existing or new is not likely to be an effective option. Creation of new cities is very difficult and existing cities outside the metro area are likely to be greatly impacted by this approach as are the connecting roads. Accordingly, Metro should work with other cities as neighbor cities in a cooperative approach and drop satellite city policy.

General conclusions

It would be difficult to make substantial expansions to the urban growth boundary. The land consumption patterns of the last generation cannot continue in the future. This means that substantial changes in urban development will occur.

We should seek a jobs and housing balance.

We must conserve connections with the natural landscape.

Equitable financing of public facilities should be a prerequisite for development.

Determining the public's values

Once the growth concepts were analyzed for technical aspects, Metro went back to the public with the results of the analysis and some important questions. Every household in the region (approximately 500,000) received a mailer that included a survey consisting of the following four questions. More than 17,000 households returned completed surveys.

Following are the results of this survey:

Should we reduce the average new residential lot size from the current 8,500 down to 7,000? See Figure 5.

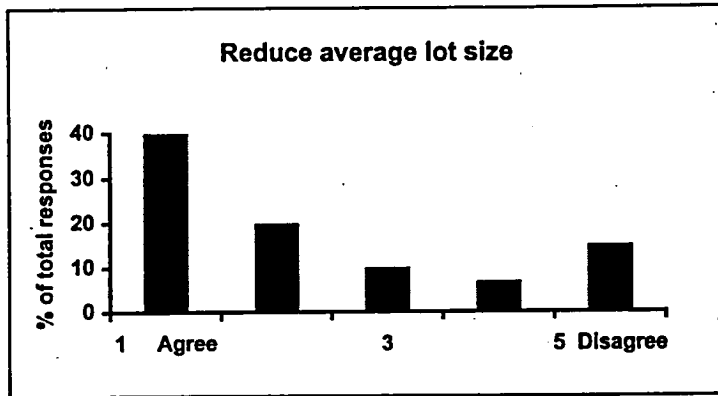


Figure 5: Reduce average lot size graph

Should we decrease the number of parking spaces allowed for retail and commercial development? See Figure 6.

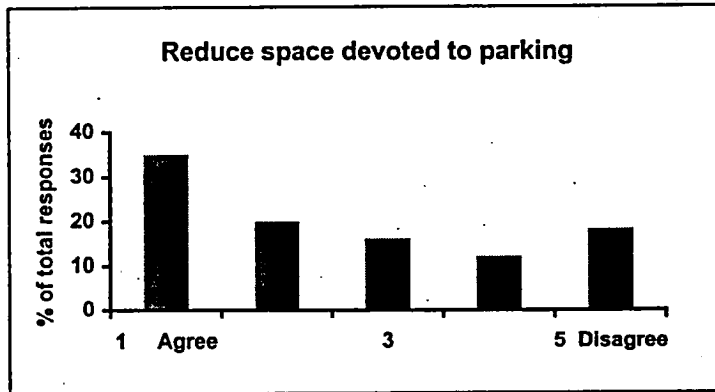


Figure 6: Reduce space devoted to parking graph

Should we increase the amount of residential and retail development along bus lines and light-rail stations? See Figure 7.

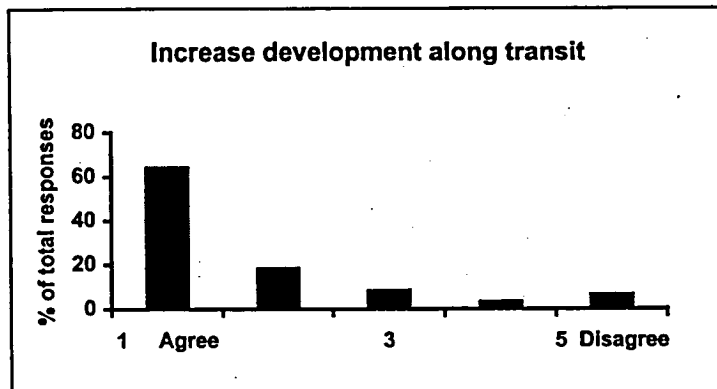


Figure 7: Increase development along transit graph

Should we encourage more growth in city centers and the redevelopment of land for more compact growth? See Figure 8.

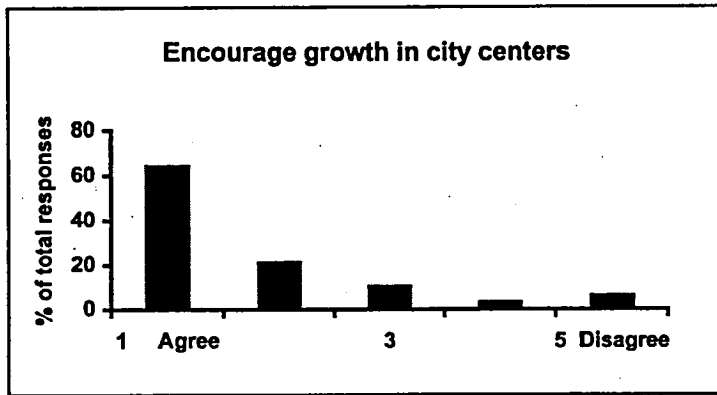


Figure 8: Encourage growth in city centers graph

Metro merged insights from the technical analysis with the survey results to create a recommended alternative, which was a hybrid of the growth concepts.

Assessing the Growth Concepts – Concepts A, B and C – was a learning process. Judging detailed, different land use and transportation alternatives allowed technical analysis and an airing of public views about what was valued and what wasn't.

From the public comments and technical analysis of the alternative growth concepts, a "Recommended Alternative" was crafted.

Recommended Alternative

248,000 to 252,000 acres*



What we examined:

Urban Form: Growth encouraged in centers and corridors with increased emphasis on redevelopment and infill.

Major Roads: 10,483 lane-miles.

Transit: 11,966 daily service-hours, serving 63 percent of households.**

What happened:

Congestion: Slightly more than Concept C, but less than the Base Case and Concepts A and B. Significant congestion on less than 9 percent of major roadways.

Transit ridership: Most ridership with least transit service hours. Higher than Concepts A, B and C, with 570,000 daily riders.

Trip length: The second lowest reduction in VMT per capita within UGB, dropping almost 11 percent from 1990.

* The Metro Council approved 18,579 acres as Urban Reserves in March, 1997 for a total of 251,246 acres.

** From Region 2040: Recommended Alternative Technical Appendix "Intra-UGB Selected Performance Measures" table.

Figure 9: Recommended Alternative

Design of this alternative enabled the development of a growth concept better able to respond to public and technical concerns. For example, the Recommended Alternative assumed that some additional urban growth boundary expansion would need to be coupled with more compact and efficient use of lands within the current urban growth boundary. In addition, some of the more ambitious transit and road improvements were scaled back and industrial designations were refined.

In comparing the Recommended Alternative with Concepts A, B and C, we find that the Recommended Alternative, as a blend (and having learned from A, B and C) is expected to have superior performance. It is more compact than any alternative except B, affecting less farm and forest lands or other rural uses. Analysis also shows that the Recommended Alternative has less vehicle miles traveled than any alternative except C (which exported 1/3 of the growth to neighboring cities), has less congestion than any alternative except C (again which has 1/3 less growth to accommodate). The

Recommended Alternative achieves this performance in spite of building fewer miles of roads, thus providing better performance for less public dollars. The Recommended Alternative also has the best air quality and the least cost for providing roads, water, sewer and stormwater facilities except Concept B.

The Recommended Alternative's compact urban form provides a less costly urban form than all other alternatives except Concept B.

Often it is asked – how does the Recommended Alternative compare with today? While this gives a point of comparison, it must be remembered that the Recommended Alternative is accommodating about 830,000 additional people (about 87% of them within an expanded UGB) and providing about 530,000 additional jobs more than in the region in 1990.

Not surprisingly, there is more congestion in the future than today (from 151 congested road miles in 1990 to 454) and the number of acres of land developed increases. However, there are other important considerations. Surprisingly, air quality is better with over 40 percent decrease in winter carbon monoxide and greater than 50 percent decrease in summer hydrocarbons when compared with 1990 levels. This is in great part due to a combination of cleaner cars replacing older, more polluting ones, but the role of transit and land use patterns are also expected to make a difference.

Another change from current conditions concerns vehicle miles traveled per capita. With the land use and transportation changes, VMT/capita is forecast to decrease slightly from 1990 levels.

While comparison with the other alternatives – A, B and C - or current conditions, is informative, it is important to address a fundamental question concerning the Recommended Alternative and existing policies – that is, what is the difference between continuing on our present course or making substantial course changes. Comparison with the Base Case provides the opportunity for this. The following table highlights important differences:

Table 2: Comparison of the Base Case and the Recommended Alternative		
<i>Factor</i>	<i>Base Case</i>	<i>Recommended Alternative</i>
Acres added to Urban Growth Boundary	98,214	14,500
Acres of Farmland Consumed	63,900	3,545
Single Family/Multi-Family Ratio	70/30	65/35
Congested Road Miles	506	454
Lane Miles Constructed	1,473	734
Vehicle Miles per Capita	13.04	11.76
Average Speed (miles per hour)	28	26
Mode Split (auto/transit/walk & bike)	92/3/5	88/6/6
Transit Service Hours	9,575	11,966
Transit Ridership	338,323	570,007
Transit Riders/Transit Service Hour	35	48

Reviewing these data and public comment, the Metro Council began hearings on the Recommended Alternative.

The preferred alternative was then presented for review and comment through a series of public hearings. Based on suggestions from local governments and citizens, scores of changes were made, and a preliminary growth concept was adopted by resolution in 1994. The 2040 Growth Concept was adopted in December, 1995, as part of RUGGOs. Other amendments to RUGGOs policies were adopted with the 2040 Growth Concept. The amended RUGGOs were submitted to the Land Conservation and

Development Commission for review. In December, 1996, amended RUGGOs, including the 2040 Growth Concept text and map, were "acknowledged" to be consistent with all applicable statewide land use laws, goals and rules. The growth concept accommodates approximately 720,000 additional residents and 350,000 additional jobs, a total population of approximately 1.8 million residents within the expanded UGB.

Glossary

Glossary

Accessibility. The amount of time required to reach a given location or service by any mode of travel.

Access Management. The principles, laws and techniques used to control access off and onto streets, roads and highways from roads and driveways. One of the primary purposes of controlling access is to reduce conflicts between motor vehicles, pedestrians and bicyclists. Examples of access management include limiting or consolidating driveways, selectively prohibiting left turn movements at and between intersections and using physical controls such as signals and raised medians.

Air Quality Conformity. This term refers to the Clean Air Act Amendments of 1990 which require the metropolitan region to use computer modeling to document that regionally significant transportation projects, if built, would result in (1) automotive emissions lower than those estimated to have occurred in 1990; (2) lower emissions than would result without building the project; and (3) total emissions lower than the "mobile source budget" adopted in the regional air quality maintenance plan.

Alternative Transportation Mode. This term refers to all passenger modes of travel except for single occupancy vehicle, including bicycling, walking, public transportation, carpooling and vanpooling.

Advanced Traffic Management System (ATMS). This term refers to traffic management techniques that use computer processing and communications technologies to optimize performance of motor vehicle, freight and public transportation systems. ATMS is a subset of Intelligent Transportation System (ITS) technologies and must be addressed as one of the sixteen ISTEA planning factors.

Americans With Disabilities Act (ADA) of 1990. Civil rights legislation enacted by the U.S. Congress that mandates the development of a plan to address discrimination and equal opportunity for disabled persons in employment, transportation, public accommodation, public services and telecommunications. Tri-Met's ADA transportation plan outlined the requirements of the ADA as applied to Tri-Met services, the deficiencies of the existing services when compared to the requirements of the new Act and the remedial measures necessary to bring Tri-Met and the region into compliance with the Act. Metro, as

the region's Metropolitan Planning Organization (MPO) is required to review Tri-Met's ADA Paratransit Plan annually and certify that the plan conforms to the Regional Transportation Plan. Without this certification, Tri-Met cannot be found to be in compliance with the ADA. ADA also affects the design of pedestrian facilities being constructed by local governments.

Areas and Activities of Metropolitan 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.

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.

Bicycle. A vehicle having two tandem wheels, a minimum of 14" in diameter, propelled solely by human power, upon which a person or persons may ride. A three-wheeled adult tricycle is considered a bicycle. In Oregon, a bicycle is legally defined as a vehicle. Bicyclists have the same right to the roadways and must obey the same traffic laws as the operators of other vehicles.

Bicycle Facilities. A general term denoting improvements and provisions made to accommodate or encourage bicycling, including parking facilities, all bikeways and shared roadways not specifically designated for bicycle use.

Bicycle Network. A system of connected bikeways that provide access to and from local and regional destinations and to adjacent bicycle networks.

Bike Lane. A portion of a roadway that has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.

Bikeway. A bikeway is created when a road has the appropriate design treatment for bicyclists, based on motor vehicle traffic volumes and speeds. On-road bikeways include shared roadway, shoulder bikeway, bike lane or bicycle boulevard design treatments. Another type of bikeway design treatment, the multi-use path, is separated from the roadway.

Capacity. The maximum number of vehicles (vehicle capacity) or passengers (person capacity) that can pass over a given section of roadway or transit line in one or both directions during a given period of time under prevailing roadway and traffic conditions.

Center City. The downtown and adjacent portions of the city of Portland. See the Growth Concept map and text.

Citizen Advisory Committee (CAC). Selected for a specific issue, project, or process, a group of citizens volunteer and are appointed by Metro to represent citizen interests. The RTP citizen advisory committee reviews regional transportation issues.

Clean Air Act Amendments of 1990. Amendments to the Clean Air Act which specify that no transportation project, whether federally or locally funded, may interfere with attainment or maintenance of federal air quality standards. With respect to transportation planning, this requirement means that the Federal Highway Administration and the Federal Transit Administration must affirm that all regionally significant transportation projects must be identified in the Metro Transportation Improvement Program and must be demonstrated to conform with the 1982 Oregon State (Air Quality) Implementation Plan (SIP). Note: The SIP is currently being amended to show Portland-area attainment of national air quality standards and methods adopted to maintain the standards for a 20-year period. EPA approval of the SIP amendment is expected in late 1997.

Community. For the purposes of the RTP, this term refers to informal subareas of the region, and may include one or more incorporated areas and adjacent unincorporated areas that share transportation facilities or other urban infrastructure. For example, references to the east Multnomah County community usually includes the cities of Gresham, Troutdale, Fairview and Wood Village, and unincorporated areas that abut these jurisdictions (see "Regional").

Congestion Management System (CMS). The CMS is one of the six management systems required by ISTEA. The CMS is to provide "information on transportation system performance and alternative strategies to alleviate congestion and enhance mobility." A key provision of CMS is that consideration must be given to a variety of demand reduction and operational management strategies as alternatives to increases in single occupant vehicle capacity when addressing deficiencies. This includes methods to monitor and evaluate performance, identify alternative actions, assess and implement cost-effective actions and evaluate the effectiveness of implemented actions.

Congestion Pricing. A transportation management tool which applies market pricing principles to roadway use. This tool involves the use of user surcharges or tolls on congested facilities during peak traffic periods. The theory of peak period pricing suggests that charging drivers per mile of travel during the congested times of the day will relieve traffic congestion by discouraging some vehicle trips and shifting others to alternative modes, facilities, destinations or times of travel.

Corridors. While some corridors may be continuous, narrow bands of higher intensity development along arterial roads, others may be more "nodal", that is, a series of smaller centers at major intersections or other locations along the arterial

which have high quality pedestrian environments, good connections to adjacent neighborhoods and good transit service. So long as the average target densities and uses are allowed and encouraged along the corridor, many different development patterns - nodal or linear - may meet the corridor objective .

Density Bonus. This term refers to allowing developers to build at higher densities than stated in local zoning code. This incentive is designed to promote more compact development, reduce trip lengths and promote alternative modes of travel.

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.

Employee Commute Options (ECO) Rule. The ECO Rule is part of House Bill 2214 which was adopted by the 1992 Legislature. The Rule directs the Department of Environmental Quality to institute an employee trip reduction program. The Rule is designed to reduce 10 percent of commuter trips for all businesses that employ 50 or more persons at a single site.

Employment Areas Areas of mixed employment that include various types of manufacturing, distribution and warehousing uses, commercial and retail development as well as some residential development. Retail uses should primarily serve the needs of the people working or living in the immediate employment area. Exceptions to this general policy can be made only for certain areas indicated in a functional plan.

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.

Fair Share A proportionate amount by local jurisdiction. Used in the context of affordable housing in this document. A "Fair share" means that each city and

county within the region working with Metro to establish local and regional policies which will provide the opportunity within each jurisdiction for accommodating a portion of the region's need for affordable housing.

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.

Freight Intermodal Facility. An intercity facility where freight is transferred between two or more modes (e.g., truck to rail, rail to ship, truck to air, etc.)

Freight Mobility. The efficient movement of goods from point of origin to destination.

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.

Greater Metropolitan Region. Defined as the greater area surrounding and including Metro's jurisdictional area, including parts of Multnomah, Clackamas and Washington counties as well as urban areas in Marion, Columbia and Yamhill counties (see "Metropolitan Region").

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 UGB 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.

High Occupancy Vehicle (HOV). This term refers to vehicles that are carrying two or more persons, including the driver. An HOV could be a transit bus, vanpool, carpool or any other vehicle that meets the minimum occupancy requirements of the specific facility. In practice, only vehicles with two or three or more persons would be able to use a designated "HOV" travel lane.

Housing Affordability. The availability of housing such that no more than - 30 percent (an index derived from federal, state and local housing agencies) of the

monthly income of the household need be spent on shelter.

Industrial Areas. An area set aside for industrial activities. Supporting commercial and related uses may be allowed, provided they are intended to serve the primary industrial users. Residential development shall not be considered a supporting use, nor shall retail users whose market area is substantially larger than the industrial area be considered supporting uses.

Infill. New development on a parcel or parcels of less than one contiguous acre located within the UGB.

Infrastructure. Roads, water systems, sewage systems, systems for storm drainage, telecommunications and energy transmission and distribution systems, bridges, transportation facilities, parks, schools and public facilities developed to support the functioning of the developed portions of the environment. Areas of the undeveloped portions of the environment such as floodplains, riparian and wetland zones, groundwater recharge and discharge areas and Greenspaces that provide important functions related to maintaining the region's air and water quality, reduce the need for infrastructure expenses and contribute to the region's quality of life.

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

Intermodal The connection of one type of transportation mode with another

Intermodal Facility. A transportation element that accommodates and interconnects different modes of transportation and serves the statewide, interstate and international movement of people and goods. *See also passenger intermodal facility and freight intermodal facility definitions.*

Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. The federal highway/public transportation funding reauthorization which among other features funds the national highway system and gives states and local governments more flexibility in making transportation decisions. The Act places significant emphasis on broadening public participation in the transportation planning process to include key stakeholders, including the business community, community groups, transit operators, other governmental agencies and those who have been traditionally underserved by the transportation system. Among other things, the Act requires the metropolitan area planning process to consider such issues as land use planning, energy conservation, intermodal connectivity and enhancement of transit service. Finally, the Act integrates transportation planning with achievement of the air quality conformity requirements embodied in the Clean Air Act Amendments of 1990 and State air quality plans.

Jobs Housing Balance. The relationship between the number, type, mix and wages of existing and anticipated jobs balanced with housing costs and availability so that non-auto trips are optimized in every part of the region.

Joint Policy Advisory Committee on Transportation (JPACT). A 17-member committee that consists of elected officials from area cities and counties as well as leaders from public agencies in the region with an interest in transportation. This committee's role is to evaluate transportation needs and coordinate transportation decisions for the region, and give recommendations to the Metro Council.

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, schools and solid waste disposal.

Land Conservation and Development Commission (LCDC). The 7-member directorship of Oregon's statewide planning program. The LCDC is responsible for approving comprehensive land use plans promulgating regulations for each of the statewide planning goals.

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.

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.

Major Amendment. A proposal made to the Metro Council for expansion of the UGB of 20 acres or more, consistent with the provisions of the Metro code.

Metro Committee for Citizen Involvement (MCCI). A committee composed of citizen representatives from the Tri-Counties area, to "advise and recommend actions to the Metro Council on matters pertaining to citizen involvement."

Metro Council. A committee composed of 7 members elected from districts throughout the metropolitan region (urban areas of Clackamas, Multnomah and Washington counties). The Council approves Metro policies, including growth management and transportation plans, projects and programs recommended by Metro Policy Advisory Committee (MPAC - see below) and the Joint Policy Advisory Committee on Transportation (JPACT - see above).

Metro Policy Advisory Committee (MPAC). A committee -established by the Metro Charter and composed of local elected officials (including representatives from Clark County, WA and the State of Oregon), MPAC is responsible for recommending to the Metro Council adoption of or amendment to any element of the Charter-mandated Regional Framework Plan.

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 UGB. This rule establishes minimum overall net residential densities for all cities and counties within the UGB, and specifies that 50 percent of the land set aside for new residential development be zoned for multifamily housing.

Metropolitan Planning Organization (MPO). An individual agency designated by the state governor in each federally recognized urbanized area to coordinate transportation planning for that metropolitan region. Metro (see above) is that agency for Clackamas, Washington and Multnomah Counties; for Clark County, Washington, that agency is the Southwest Washington Regional Transportation Council (SWRTC, formally the Intergovernmental Resource Center - see below).

Metropolitan Region. Defined as the area included within Metro's jurisdictional boundary, including parts of Multnomah, Clackamas and Washington counties (see "Greater Metropolitan Region").

Metropolitan Transportation Improvement Program (MTIP). A staged, multi-year, intermodal program of transportation projects which is consistent with the metropolitan transportation plan.

Mobility. The ability to move people and goods from place to place, or the potential for movement. Mobility reflects the spatial structure of the transportation network and the level and quality of its service. Mobility is determined by such characteristics as road capacity and design speed.

Motor Vehicle Level of Service (LOS). A qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort, convenience and safety. An LOS rating of "A" through "F" describes the traffic flow on streets and highways and at intersections. The following table describes general traffic flow characteristics for each level of service on a street or highway:

<u>LOS</u>	<u>Traffic Flow Characteristics</u>
A	Virtually free flow; completely unimpeded
B	Stable flow with slight delays; reasonably unimpeded
C	Stable flow with delays; less freedom to maneuver
D	High density but stable flow
E	Operating conditions at or near capacity; unstable flow
F	Forced flow, breakdown conditions
Greater than F	Demand exceeds roadway capacity, limiting volume than can be carried and forcing excess demand onto parallel routes and extending the peak period

Source: 1985. Highway Capacity Manual (A through F descriptions)
Metro (>F Description)

Multi-use Path. A path that is physically separated from motor vehicle traffic by an open space or barrier and is either within the highway right-of-way or within an independent right-of-way, used by bicyclists, pedestrians, joggers, skaters and other non-motorized travelers.

Neighbor City. Nearby incorporated cities with separate urban areas from the Metro urban area, but connected to the metropolitan area by major highways. Neighbor cities include Sandy, Estacada, Canby, Newberg, North Plains and Scappoose.

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

Open Space. Publicly and privately -owned areas of land, including parks, natural areas and areas of very low density development inside the UGB.

Oregon Bicycle and Pedestrian Plan. An element of the Oregon Transportation Plan, this plan offers the general principles and policies that ODOT follows to provide bikeways and walkways along state highways. This plan also provides guidance to cities and counties, as well as other organizations and private citizens, in establishing bicycle and pedestrian facilities on local transportation systems.

Oregon Statewide Planning Goals. The 19 goals which provide a foundation for the state's land use planning program. The planning goals can be grouped into four broad categories: land use, resource management, economic development, and citizen involvement. Locally adopted comprehensive plans and regional transportation plans must be consistent with the statewide planning goals.

Oregon Transportation Plan (OTP). The State's official statewide, intermodal transportation plan that will set priorities and state policy in Oregon for the next 40 years. The plan, developed by the Oregon Department of Transportation

through the statewide transportation planning process, responds to federal ISTEA requirements (see above) and Oregon's Transportation Planning Rule (TPR - see below).

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

Park-and-Ride. A mode of travel, usually associated with movements between work and home, that involves use of a private auto on one portion of the trip and a transit vehicle (i.e., a bus or a light rail vehicle) on another portion of the trip. Thus, a park-and-ride trip could consist of an auto trip from home to a parking lot, and transfer at that point to a bus in order to complete the trip to work.

Parking Cash-Out. This term refers to a transportation demand management strategy where the market value of a parking space is offered to an employee by the employer. The employee can either spend the money for a parking space, or pocket it and then use an alternative mode to travel to work. Measures such as parking cash-out provide disincentives for commuting by single occupancy vehicles.

Passenger Intermodal Facility. The hub for various statewide, national and international passenger modes and transfer points between modes (e.g., airport, bus and train stations).

Pedestrian. A person on foot, in a wheelchair or walking a bicycle.

Pedestrian Facility. A facility provided for the benefit of pedestrian travel, including walkways, crosswalks, signs, signals, illumination and benches.

Pedestrian Scale. An urban development pattern where walking is a safe, convenient and interesting travel mode. It is an area where walking is at least as attractive as any other mode to all destinations within the area. The following elements are not cited as requirements, but illustrate examples of pedestrian scale: continuous, smooth and wide walking surfaces; easily visible from streets and buildings and safe for walking; minimal points where high speed automobile traffic and pedestrians mix; frequent crossings; storefronts, trees, bollards, on-street parking, awnings, outdoor seating, signs, doorways and lighting designed to serve those on foot; well integrated into the transit system and having uses which cater to people on foot.

Persons Per Acre. This is a term expressing the intensity of building development by combining residents per net acre and employees per net acre.

Planning activities Planning activities cited in the RUGGO are not regulatory

but contain implementation ideas for future study in various stages of development that may or may not lead to RUGGO amendments, new functional plans, functional plan amendments, or regional framework plan elements. Planning activities for any given year will be subject to Metro Executive Officer budget recommendations and Metro Council budget adoption.

Public Transportation. This term refers to both publicly and privately funded transportation serving the general public, including fixed-route bus and rail service, inter-city passenger bus and rail service, dial-a-ride and demand responsive services, client transport services and commuter/rideshare programs. For the purposes of the RTP, school buses and taxi subsidy programs are not included in this definition.

Regional. For the purposes of the RTP, this term refers to large subareas of the region, or the entire region, and usually includes many incorporated areas and adjacent unincorporated areas that share major transportation facilities or other urban infrastructure (see "Community").

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.

Regional Framework Plan. Required of Metro under the Metro Charter, the Regional Framework Plan must address nine specific growth management and land use planning issues (including transportation), with the consultation and advice of MPAC (see above). To encourage regional uniformity, the regional framework plan shall also contain model terminology, standards and procedures for local land use decision making that may be adopted by local governments.

Regional Transportation Plan (RTP). The official intermodal transportation plan that is developed and adopted through the metropolitan transportation planning process for the metropolitan planning area.

Regional Urban Growth Goals and Objectives (RUGGOs). An urban growth policy framework that represents the starting point for the agency's long-range regional planning program.

Right-of-Way (ROW). This term refers to publicly-owned land, property or interest therein, usually in a strip, within which the entire road facility (including travel lanes, medians, sidewalks, shoulders, planting areas, bikeways and utility easements) must reside. The right-of-way is usually defined in feet and is acquired for or devoted to multi-modal transportation purposes including bicycle, pedestrian, public transportation and vehicular travel.

Rural Area. Those areas located outside the Metro Urban Growth Boundary (UGB).

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

Shared Roadway. A type of bikeway where bicyclists and motor vehicles share a travel lane.

Sidewalk. A walkway separated from the roadway with a curb, constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians.

Single-occupancy vehicle (SOV). This term means private passenger vehicles carrying one occupant.

State Implementation Plan. A plan for ensuring that all parts of Oregon remain in compliance with Federal air quality standards.

State Transportation Improvement Program (STIP). A federally required document that allocates transportation funds to a staged, multi-year, statewide, intermodal program of transportation projects - consistent with the Statewide transportation plan and planning processes and metropolitan plans, TIPs and processes. The metropolitan TIP must be included in the STIP without change.

Station Communities That area generally within a 1/4- to 1/2-mile radius of light rail stations or other high capacity transit which is planned as a multi-modal community of mixed uses and substantial pedestrian accessibility improvements.

Stewardship A planning and management approach that considers environmental impacts and public benefits of actions as well as public and private dollar costs.

Subregion. An area of analysis used by Metro centered on each regional center and used for analyzing jobs/housing balance.

Technical Advisory Committee (TAC). A group of technical staff from government agencies participating in the project. The TAC is responsible for producing the base technical information that will ultimately be used by local decision-makers to complete the project purpose.

Telecommute. A transportation demand management strategy whereby an individual substitutes working at home for commuting to a work site on either a part-time or full-time basis.

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.

Traffic. The number of motor vehicles in a given location at a given point in time.

Traffic Calming. A transportation system management technique that aims to prevent inappropriate through-traffic and reduce motor vehicle travel speeds on a particular roadway. Traditionally, this technique has been applied to local residential streets and collectors and may include speed bumps, curb extensions, planted median strips or rounds and narrowed travel lanes.

Transit. For purposes of the RTP, this term refers to publicly-funded and managed transportation services and programs within the urban area, including light rail, regional rapid bus, frequent bus, primary bus, secondary bus, mini-bus, paratransit and park-and-ride.

Transit Level of Service. The comfort, safety, convenience and utility of transportation service, measured differently for various types of transportation systems.

Transit-Oriented Development. A mix of residential, retail and office uses and a supporting network of roads, bicycle and pedestrian ways focused on a major transit stop designed to support a high level of transit use. Key features include: a mixed use center and high residential density.

Transportation Demand Management (TDM). Actions, such as ridesharing and vanpool programs, the use of alternative modes, and trip-reduction ordinances, which are designed to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional road capacity.

Transportation Disadvantaged/Persons Potentially Underserved by the Transportation System. Those individuals who have difficulty in obtaining transportation because of their age, income, physical or mental disability.

Transportation Management Area (TMA). As defined in federal regulations, this term refers to “an urbanized area with population over 200,000” and “applies to the entire metropolitan planning area.” All locations must meet certain standards and non-attainment TMA’s must meet additional planning requirements.

Transportation Planning Rule (TPR). The implementing rule of statewide land use planning goal (#12) dealing with transportation, as adopted by the State Land Conservation and Development Commission (LCDC - see above). Among its many provisions, the Rule includes requirements to preserve rural lands, reduce vehicle miles traveled (VMT) per capita by 20% in the next 30 years, reduce parking spaces and to improve alternative transportation systems.

Transportation Policy Alternatives Committee (TPAC). Senior staff-level policy committee which reports and makes policy recommendations to JPACT (see above). TPAC's membership includes technical staff from the same governments and agencies as JPACT, plus representatives of the Federal Highway Administration and the Southwest Washington Regional Transportation Council (SWRTC - see above); there are also six citizen representatives appointed by the Metro Council (see above).

Transportation System Management (TSM). Strategies and techniques for increasing the efficiency, safety, capacity or level of service of a transportation facility without major new capital improvements. This may include signal improvements, intersection channelization, access management, HOV lanes, ramp metering, incident response, targeted traffic enforcement and programs that smooth transit operations.

Transportation System Plan (TSP). A plan for one or more transportation facilities that are planned, developed, operated and maintained in a coordinated manner to supply continuity of movement between modes, and within and between geographic and jurisdictional areas.

Tri-Met. Tri-County Metropolitan Transportation District, which is the transit agency for most of Clackamas, Multnomah and Washington Counties.

Urban Area. Those areas located within the Metro Urban Growth Boundary (UGB).

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 Growth Management Functional Plan (Functional Plan) - A regional functional plan with requirements binding on cities and counties in the Metro region, as mandated by Metro's Regional Framework Plan. The Functional Plan addresses such issues as accommodation of projected regional population and job growth, regional parking management, water quality conservation, retail in employment and industrial areas and accessibility on the regional transportation system. All cities and counties in the Metro region shall adopt changes to local comprehensive plans and zoning codes to address these issues within 24 months after the adoption of the Functional Plan ordinance by the Metro Council.

Urban Reserve Area. An area adjacent to the present UGB defined to be a priority location for any future UGB 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 UGB describes an area needed to accommodate the urban growth forecasted over a 20-year period, the urban reserves plus the area inside the UGB estimate the area capable of accommodating the growth expected for 50 years.

Walkway. A hard-surfaced transportation facility built for use by pedestrians, including persons using wheelchairs. Walkways include sidewalks, paths and paved shoulders.

Wide Outside Lane. A wider than normal curbside travel lane that is provided for ease of bicycle operation where there is insufficient room for a bike lane or shoulder bikeway.

Publications

Metro Publications List

Statutory Documents, Legislation and Technical Reports

- Adopted Findings and Conclusions - Ordinance No. 96-655E (Urban Reserve Area Designations)**, March 6, 1997. Metro Office of General Counsel.
- Urban Growth Management Functional Plan (Ordinance No. 96-647C)**, November 21, 1996. Metro.
- Executive Officer Recommendations - Urban Reserves Background Data, Exhibit A**, September 1996. Metro Growth Management Services Department.
- Utility Feasibility Analysis for Metro 2040 Urban Reserve Study Areas**, June 1996. KCM, Inc.
- Regional Transportation Plan Update**, April 19, 1996. Metro Regional Transportation Plan Citizens Advisory Committee
- Housing Needs Analysis Discussion Draft**, March 1996. Metro.
- Urban Growth Report Discussion Draft**, March 1996. Metro.
- Regional Urban Growth Goals and Objectives (Ordinance No. 95-625A)**, December 1995. Metro.
- Urban Reserve Study Areas Report**, December 4, 1995. Metro.
- Regional Parking Management Program for the Portland Metropolitan Area**, December, 1995. Metro.
- Survey of Natural Resource Protection Tools in the Portland Metropolitan Region**, October 1995. Metro.
- Transportation Demand Management (TDM) Phase I Report (draft)**, October 1995. Metro.
- Regional Bicycle Plan (draft)**, October, 1995. Metro.
- Utility Feasibility Analysis for Metro 2040 Urban Reserve Study Areas**, September 1995. KCM.
- Neighboring Cities 2040 Study**, August 1995. OTAK, et al.
- Regional Pedestrian Program Background Report (draft)**, August 1995. Metro.
- Buildable Land Inventory Review (Zell Report)**, Summer 1995. Zell & Associates.
- Metro 2040 Growth Concept (Resolution No. 94-2040C)**, December 8, 1994. Metro.
- Region 2040 Recommended Alternative Decision Kit**, September 1994. Metro.
- Region 2040 Technical Appendix**, September 15, 1994. Metro.
- Transportation Analysis of the Growth Concepts**, July 1994. Metro.
- Region 2040 Concept Document - Land Use Appendix**. July 1994. Metro.

Concepts for Growth, Report to the Council (Concept Report), June 1994.
Metro.

Portland Metro 2040 Commodity Flow and Requirements Study, Phase III
Report, June 1994. DRI/McGraw-Hill, et al.

The Region 2040 Study (Regional Design Images), May 1994. Calthorpe and
Associates.

Profiles of the Portland-Vancouver Economy, May 1994. Metro. (*\$10 report -*
(503) 797-1742)

Water Descriptive Indicators: Final Report, April 1994. ECO Northwest and
CH2M Hill

2040 Indicators: Housing and Employment, April 1994. ECO Northwest

Carrying Capacity and Its Application to the Portland Metropolitan Region,
April 1994. Wim Aspeslaugh, University of Oregon for the Future Vision
Commission.

Evaluation of No-Growth and Slow-Growth Policies for the Portland Region,
March 1994. ECO Northwest.

Workstyles Study, March 1994. Steve Schriver, Institute of Portland
Metropolitan Studies for the Future Vision Commission.

Creating and Using Descriptive Indicators: Non-Quantifiable Issues,
February 1994. Pacific Rim Resources.

Region 2040 Interim Report, January 1994, Metro.

Settlement Patterns in the Portland Region: A Historical Overview, January
1994. Carl Abbott, Portland State University, for the Future Vision
Commission.

The Regional Forecast, Portland-Vancouver Metropolitan Area Forecast
1990 - 2040, November 1993. Metro. (*\$20 report - call (503) 797-1742*)

Existing Conditions: The Natural and Built Environment, June 1993. ECO
Northwest.

Mixed-Use Urban Centers: Economic and Transportation Characteristics,
February 1993. Cambridge Systematics and Parsons Brinckerhoff Quade
& Douglas, Inc.

Region 2040 - Phase 1 Final Report, June 1993, ECO Northwest and Metro.

Housing Issues Report, March 1991. Metro Planning & Development Dept.

Region 2040 Public Involvement Summaries/Results

Public Comment Report (Regional Transportation Plan Update). April 10,
1996. Metro

2040 Framework Report on Public Involvement Summer 1995. August 1995.
Metro.

Interim Federal Regional Transportation Plan Public Comment Report,
May, 1995. Metro.

Region 2040 Public Involvement Report, August 1994. Metro, Cogan Owens
Cogan and Pacific Rim Resources.

Summary of Round 2 of Public Involvement, January 1993. Cogan Sharpe
Cogan and Pacific Rim Resources.

Summary of Round 1 of Public Involvement: Implications for Defining Alternatives, August 1992. ECO Northwest.

Surveys

- 1997 Growth Management Survey Summary, February 1997. Davis & Hibbitts, Inc.**
- Survey on Growth & the Economy, December 1996. Portland General Electric.**
- Survey on Growth & the Economy, March 1996. Portland General Electric.**
- Public Attitudes Toward Growth Management - A Public Opinion Research Project, March 1996. Davis & Hibbitts, Inc., for Metro 2040 Means Business Committee**
- Citispeak Survey, January 1995. Western Attitudes.**
- Citispeak Survey, April 1994. Western Attitudes.**
- Citispeak Survey, April 1993. Western Attitudes.**
- Citispeak Survey, September 1993. Western Attitudes.**
- Oregon Values and Beliefs Survey, Summary Report, 1993. Oregon Business Council.**
- Telephone Survey for the Region 2040 Project, April 1992. Decision Sciences.**

Region 2040 brochures/tabloids

- Urban Reserves Frequently Asked Questions (Metro's Web Page) April 1997.**
- Metro 2040 Framework Update, Fall 1996/Winter 1997.**
- Metro 2040 Framework Council Schedule, September 1996.**
- Metro Facts - Metro and Growth Management: The Region's 2040 Framework, Fall 1996.**
- Metro 2040 Framework Update, Spring 1996.**
- Metro 2040 Framework Update, Fall 1995/Winter 1996.**
- Metro 2040 Framework Update, Spring/Summer 1995.**
- Decisions for Tomorrow, Metro Region 2040 Update, Fall 1994.**
- "It's Your Turn" tabloid mailer, June 1994.**
- Decisions for Tomorrow, Metro Region 2040 Update, Fall/Winter 1993.**
- Decisions for Tomorrow, Metro Region 2040 Update, Spring 1993.**
- Region 2040: Shaping the Choices for Growth, September 1992 (newsprint).**

Supporting Documents

- The Determinants of Metropolitan Property Values: Implications for Regional Planning, October 8, 1996. Gerrit Knapp, Ph.D. University of Illinois at Urbana-Champaign.**
- Regional Transportation Policy (Regional Transportation Plan Update), July 25, 1996. Metro Regional Transportation Plan Citizens Advisory Committee.**
- Regional Transportation Plan Update (Citizen Advisory Committee Policy Recommendations Final Draft), April 19, 1996. Metro Regional Transportation Plan Citizen Advisory Committee.**
- Interim Federal Regional Transportation Plan, July 1995. Metro.**
- Future Vision Report, June 1995. Metro Future Vision Commission.**

The Citizens Regional Watershed Handbook, May 1995. Metro and the Wetlands Conservancy.

Rock Creek Watershed Atlas, March 1995. Portland State University and Metro.

National Case Studies in Managing Growth and Natural Resources, 1995. Metro.

Tryon Creek Watershed Atlas, 1995. Portland State University and Metro.

Land Use In Oregon: Growth and Change, January 1995. League of Women Voters of Oregon.

Transportation Planning Rule Implementation Regional Guidelines: Report on a Regional Discussion, February 1994. Cogan, Owens, Cogan.

Oregon's Statewide Planning Goals & Guidelines, 1995 Edition. Department of Land Conservation and Development.

Oregon's Statewide Land Use Planning Goals, 1993 Edition. Department of Land Conservation and Development.

Picture This...The Results of a Visual Preference Survey, June 1993. A. Nelesen Associates, Inc.

1992 Metro Charter, November 1992. Metro.

Oregon Benchmarks, December 1992. Oregon Progress Board.

Ten Essentials for a Quality Regional Landscape, 1992. Metro.

Regional Transportation Plan, January 1992 Revision of the 1989 Update. Metro.

Regional Urban Growth Goals and Objectives, September 1991. Metro.

Historical Development of the Metropolitan Service District, May 1991 by Carl Abbott for the Metro Charter Committee.

Videos

Building 2040, November 1995. Metro.

It's Your Future. It's Your Turn, June 1994. Metro.

Implementation

Making an Assessment of Accessory Rental Units in the Portland Area, June 1996. Theodis Perry, Jr.

Main Street Handbook - A User's Guide to Main Streets, March 1996. Metro.

Regional Mainstreets: An Implementation Strategy to Promote Main Street and Corridor Development, July 1995. Metro.

Regional Mainstreets, Transit Corridor Implementation Strategy, Technical Memorandum, June 1995. Tashman Associates et al.

Market Background and Observations of Regional Mainstreets, June 1995. Leland Consulting Group.

Accessory Rental Units in the Portland Area: A Guide for Design, Development & Management, May 1995. Institute of Portland Metropolitan Studies (Ethan Seltzer and Theodis Perry, Jr.)

Regional Mainstreets: Main Street and Corridor Case Study Analysis, Technical Memorandum, June 1995. Tashman Associates et al.

To obtain copies of documents listed here, contact Metro's Growth Management Services Department at (503) 797-1562.

Tables And Figures

Tables and Figures

TABLE 1: COMPARISON OF 1990 CONDITIONS AND GROWTH ALTERNATIVES.....	57
TABLE 2: COMPARISON OF THE BASE CASE AND THE RECOMMENDED ALTERNATIVE	66
TABLE 3: CALCULATION OF CURRENT URBAN GROWTH BOUNDARY CAPACITY	34
TABLE 4: REGIONAL HOUSING NEED 1995 - 2017, BASED ON THE METRO 2040 GROWTH CONCEPT (URBAN METRO AREA ONLY - INCLUDES VACANCY RATE)	36
TABLE 5: RECOMMENDED NEEDED ADDITIONAL AFFORDABLE HOUSING IF AFFORDABLE HOUSING IS TO BE ACHIEVED THROUGHOUT THE REGION.....	40
FIGURE 1 BASE CASE.....	48
FIGURE 2: CONCEPT A	51
FIGURE 3: CONCEPT B	53
FIGURE 4: CONCEPT C	55
FIGURE 5: REDUCE AVERAGE LOT SIZE GRAPH	62
FIGURE 6: REDUCE SPACE DEVOTED TO PARKING GRAPH	63
FIGURE 7: INCREASE DEVELOPMENT ALONG TRANSIT GRAPH.....	63
FIGURE 8: ENCOURAGE GROWTH IN CITY CENTERS GRAPH.....	63
FIGURE 9: RECOMMENDED ALTERNATIVE.....	65
FIGURE 10 COLUMBIA AND WILLAMETTE RIVER FLOODING	101
FIGURE 11 LAND USES GROUPED BY SEISMIC RISK.....	109
FIGURE 12: POPULATION CHANGE BY COUNTY 1980-1996.....	114

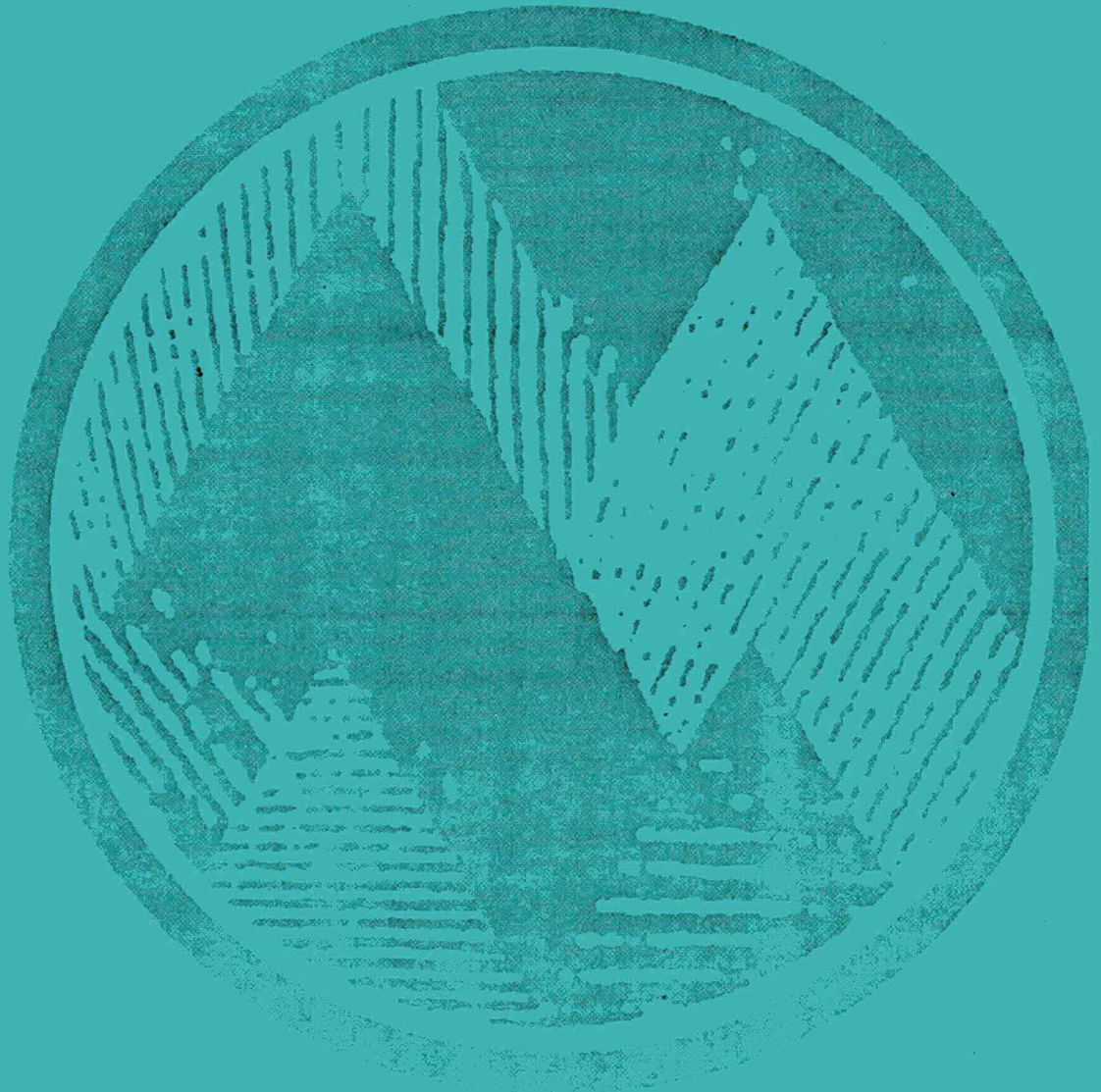
MetroPlan

**Regional
Framework Plan
Discussion Draft**

May 1997



METRO



PREFACE	1
Creating a livable future	1
A mandate for integrated regional planning	1
Your part in the plan	3
INTRODUCTION: FOUNDATIONS OF THE REGIONAL FRAMEWORK PLAN	4
Regulatory relationships	4
Relationships with other governments	5
Future Vision	6
RUGGOs and the 2040 Growth Concept	8
Region 2040	8
Public values and tradeoffs	9
Creating and analyzing the alternatives	9
Base Case findings	10
Concept A findings	12
Concept B findings.....	14
Concept C findings.....	16
Land use	20
Transportation	20
Air quality	21
Social stability.....	22
Employment.....	22
Housing.....	22
Water, sewer and stormwater.....	22
Values.....	23
The nature of growth.....	23
Slowing growth.....	23
Satellite cities	23
General conclusions	24
Determining the public's values.....	24
CHAPTER 1 LAND USE	31
Overview	31
Background	32
Future Vision.....	32
Urban growth boundary	33
Urban reserves.....	34

Housing	35
Analysis	35
Housing	39
Urban reserves.....	45
Economic opportunity.....	46
Urban/rural transition	47
Neighbor cities	48
Protection of agriculture and forest lands	48
Schools.....	49
Policies.....	49
1.1 Urban form.....	49
1.2 Built environment.....	49
1.3 Housing.....	50
1.4 Economic opportunity.....	50
1.5 Urban Vitality.....	51
1.6 Growth Management.....	51
1.7 Urban/Rural Transition	51
1.8 Developed Urban Land	52
1.9 Urban Growth Boundary.....	53
1.10 Urban Design	53
1.11 Neighbor Cities	54
1.12 Protection of Agriculture and Forest Resource Lands	55
1.13 Growth Concept.....	55

CHAPTER 2 TRANSPORTATION 72

Overview	72
Background.....	73
Federal mandates.....	73
State mandates.....	74
Regional Mandates.....	75
Analysis	76
Central city and regional centers.....	77
Industrial areas and intermodal facilities.....	77
Town centers, station communities, main streets and corridors.....	78
Employment centers and neighborhoods	79
Urban reserves.....	79
Areas outside the region's urban areas.....	79
The 2040 Commodity Flow Study.....	80
Conclusions	81
Policies.....	83
2.1 Intergovernmental coordination.....	83
2.2 Consistency between land use and transportation planning.....	84
2.3 Public involvement.....	84
2.4 System priorities.....	84
2.5 Transportation finance	85
2.6 Urban form.....	85
2.7 Jobs/housing balance.....	85

2.8 Transportation education.....	85
2.9 Barrier-free transportation.....	86
2.10 Transportation balance.....	86
2.11 Street design.....	86
2.12 Motor vehicle transportation.....	87
2.13 Public transportation.....	87
2.14 Pedestrian transportation.....	88
2.15 Bicycle transportation.....	89
2.16 Freight movement.....	89
2.17 Parking management.....	90
2.18 Transportation demand management.....	91
2.19 Transportation system management.....	92
2.20 Right-of-way opportunities.....	92
2.21 Adequacy of transportation facilities.....	92
2.22 Urban to urban travel on rural routes.....	92
2.23 Recreational travel and tourism.....	93
2.24 Natural environment.....	93
2.25 Water quality.....	93
2.26 Clean air.....	93
2.27 Energy efficiency.....	94

CHAPTER 3 PARKS, OPEN SPACES AND RECREATIONAL FACILITIES..... 96

Overview.....	96
Background.....	97
Analysis.....	100
Identification and Inventory of the Regional System.....	101
Protection of the Regional System.....	101
Management of the Regional System.....	103
Regional Trail and Greenway System.....	104
Goal 5.....	107
Policies.....	109
3.1 Policies related to the Inventory and Identification of Regionally Significant Parks, Natural Areas, Open Spaces, Trails and Greenways.....	109
3.2 Policies related to the Protection of Regionally Significant Parks, Natural Areas, Open Spaces, Trails and Greenways.....	109
3.3 Policies related to the Management of the Publicly-Owned Portion of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways.....	110
3.4.1. Metro will identify a Regional Trails System which shall be included in the Regional Transportation Plan.....	111
3.5 Policies related to the Provision of Community and Neighborhood Parks, Open Spaces, Trails and Recreation Programs.....	111
3.6 Policies related to Participation of Citizens in Environmental Education, Planning, Stewardship Activities, and Recreational Services.....	112

CHAPTER 4 WATER..... 114

Part 1 Urban Water Supply.....	114
--------------------------------	-----

Overview	114
Background.....	114
Early Plans: Defining Roles and Responsibilities	115
More Recent Regional Policies	116
Other Region-wide Work.....	118
Policy	120
4.1 General Policy Direction.....	120
4.2 Process	121
4.3 Efficient Use of Water.....	121
4.4 Water Supply Shortages.....	121
4.5 Impacts of Catastrophic Events.....	122
4.6 Water Quality.....	122
4.7 Economic Costs and Cost Equity.....	122
4.8 Environmental Stewardship	122
4.9 Flexibility to Deal with Future Uncertainty	123
4.10 Growth and Land Use Planning	123
Part 2 Watershed Management and Water Quality	123
Overview	123
Background.....	124
Federal Mandates	124
State Requirements.....	124
Regional policies.....	126
Analysis	127
Water Quality.....	127
Riparian and Wetland Areas	128
Impacts of urbanization on watersheds and biodiversity	128
Watershed-based management and planning	129
Federal and State implications	131
Other Outstanding Issues	131
Policies.....	132
4.11 Overall Watershed Management.....	132
4.12 Water Quality Goals.....	133
4.13 Urban Planning and Natural Systems.....	133
4.14 Water quality protection.....	133
4.15 Fish and Wildlife Habitat Conservation Area	133
CHAPTER 5 REGIONAL NATURAL HAZARDS	135
Overview	135
Background.....	136
National Mitigation Planning	136
State Mitigation Planning.....	137
Regional Mitigation Planning	137
Analysis	139

Housing	139
Public Services and Facilities	139
Transportation	140
Economic Opportunity	140
Urban/Rural Transition	140
Developed Urban Land	141
Urban Design	141
Other Implications.....	141
Policies.....	142
5.1 Earthquake Hazard Mitigation Measures	142
5.2 Flood Hazard Mitigation Measures	144
5.3 Landslide Hazard Mitigation Measures	145
Measures for Other Natural Hazards.....	146
CHAPTER 6: CLARK COUNTY	148
Overview	148
Background.....	149
Analysis	154
CHAPTER 7: ENVIRONMENTAL EDUCATION	157
Overview	157
CHAPTER 8 MANAGEMENT.....	160
Overview	160
Background.....	160
Analysis	161
Policies.....	163
8.1 Citizen Participation.....	163
8.2 Metro Policy Advisory Committee	163
8.3 Applicability of Regional Framework Plan Policies	164
8.4 Urban Growth Boundary Plan.....	165
8.5 Functional Plans	165
8.6 Periodic Review of Comprehensive Land Use Plans	167
8.7 Implementation Roles	167
8.8 Performance Measures	169
8.9 Monitoring and Updating.....	170
CHAPTER 9: IMPLEMENTATION	172
APPENDIX A: URBAN GROWTH MANAGEMENT FUNCTIONAL PLAN	174

APPENDIX B: METRO CODE 3.01 CONCERNING URBAN RESERVES AND EXPANSION OF THE UGB	216
APPENDIX C: FUTURE VISION	222
APPENDIX D: PARKS, OPEN SPACE AND RECREATION.....	231
Inventory and Identification of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways- Policy 3.1, 3.1.1, 3.1.2, 3.1.3.....	232
Scientific Criteria	232
Social Criteria.....	233
Protection of a Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways- Policy 3.2, 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.2.8.....	233
Management of Publicly-Owned Portions of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways. Policy 3.3, 3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5.....	235
The Provision of Community and Neighborhood Parks, Open Spaces, Trails and Recreation Programs. Policy 3.5, 3.5.1, 3.5.2.....	237
The Participation of Citizens in Environmental Education, Planning and Stewardship Activities. Policy 3.6, 3.6.1, 3.6.2.	238
APPENDIX E: WATER SUPPLY.....	240
APPENDIX F: WATERSHED MANAGEMENT AND WATER QUALITY.....	242
APPENDIX G: NATURAL HAZARDS	243
APPENDIX H: MODEL CODES	244
GLOSSARY	246
TABLES AND FIGURES	262
METRO PUBLICATIONS LIST.....	264

Preface

The Regional Framework Plan contains the policies that will direct our region's future growth. The result of years of work with citizens and governments of this region, the plan provides specific guidelines that city and county governments will use to create and preserve livable communities.

Creating a livable future

If you've lived in the metropolitan area for very long, you know it's a special place. While other urban areas have sprawled, our region has managed urban development and communities near our central city have not suffered from abandonment and decline. In the last decade, we have funded an ambitious program to maintain, restore and acquire public open spaces, and we are witnessing healthy economies in communities all over the region. Redevelopment of existing buildings and new development of underutilized land account for about one-third of new development, and mass transit use is increasing at a faster rate than auto use. Things look different here because of our commitment to statewide and regional planning since the late 1960s. This framework plan is intended to extend that legacy into the next century in constructive and inventive ways.

The challenge is clear: we must continue our cooperative and participatory approach to growth management if we are to preserve our quality of life as additional people move into the urban area. Further, we must approach the issues accompanying growth – traffic congestion, vanishing open space, speculative pressure on rural farm lands, rising housing costs, diminishing environmental quality, demands on infrastructure such as schools, water and sewer treatments plants and vulnerability to natural hazards – within a common framework. Making the connections between these issues will enhance our ability to manage urban growth successfully and ensure a livable future.

A mandate for integrated regional planning

The Metro Charter, approved by two-thirds of the voters in November 1992, establishes growth management as Metro's primary task and requires that a Regional Framework

Plan be adopted by Dec. 31, 1997. The charter mandates that the plan address the following:

- management and amendment of the urban growth boundary
- protection of lands outside the urban growth boundary for natural resource use and conservation, future urban expansion or other uses
- urban design and settlement patterns
- housing densities
- transportation and mass transit systems
- parks, open spaces and recreational facilities
- water sources and storage
- coordination with Clark County, Wash.
- planning responsibilities mandated by state law
- other issues of metropolitan concern

This document brings together these elements and the contents of previous regional policies to create an integrated framework and to ensure a coordinated, consistent approach. While technically a new document, the Regional Framework Plan incorporates goals, objectives and policies established in existing documents, including the Regional Urban Growth Goals and Objectives, the Greenspaces Master Plan, the 2040 Growth Concept and the Regional Transportation Plan.

The plan is divided into the following seven chapters, five of which address the charter-mandated issues. More specifically, the chapters are organized as follows:

The Introduction provides an overview of Metro's origins, relationships with other governments and offers an historical perspective on this plan by reviewing key elements of the documents on which it is based.

Chapter One focuses on land-use concerns inside and outside the urban growth boundary as well as housing densities, urban design and settlement patterns.

Chapter Two analyzes regional transportation issues.

Chapter Three addresses parks, open spaces and recreational facilities.

Chapter Four focuses on urban water supply, watershed management and water quality.

Chapter Five addresses natural hazards.

Chapter Six describes the region's relationship with Clark County, WA.

Chapter Seven includes the role of environmental education.

Chapter Eight outlines plan management policies.

Chapter Nine illustrates how implementation of the plan is expected to occur.

Your part in the plan

This plan is mandated by a vote of the people of the region and is intended to bring together work that Metro has done or is considering in many different subject areas. This discussion draft, completed by Metro's elected Executive Officer Mike Burton, will be discussed and assessed by the elected Metro Council and its advisory committees. After public hearings and deliberations, the Metro Council will determine a schedule for adoption. However, your early response will be critical in ensuring that the final adopted version considers your interests and concerns. If you would like to have the Executive Officer consider your comments in his recommendations to the Metro Council, or simply wish to be placed on our mailing list, you may forward your comments by **June 27, 1997**, (there will be additional opportunities for public testimony and comment) as follows:

US mail: Framework Plan
 Executive Officer, Mike Burton
 Metro
 600 NE Grand Ave.
 Portland, OR 97232

E-mail: 2040@Metro.dst.or.us

Telephone: Metro hotline – 797-1888 (comments are recorded, typed verbatim and forwarded to the Metro Council)

Thank you for helping our region discuss its future!

Introduction: Foundations of the Regional Framework Plan

Metro was created in 1978 when voters in Multnomah, Washington and Clackamas counties approved an elected regional government to oversee issues that transcend traditional city and county boundaries. The state legislation creating Metro, Oregon Revised Statute Chapter 268, describes Metro's responsibilities and procedures. Among these are the responsibilities to adopt and amend the regional urban growth boundary (UGB), and adopt "regional goals and objectives" that are consistent with state goals.

The goals and objectives of Metro's predecessor, the Columbia Region Association of Governments, continued after Metro was formed. The Metro Council, in partnership with local governments, adopted new goals and objectives, called the Regional Urban Growth Goals and Objectives (RUGGOs), in September 1991 after months of public meetings. Through their representatives on Metro advisory committees, the cities and counties indicated that while the directions set in the RUGGOs were appropriate, they were not specific enough. Accordingly, local representatives recommended that additional work be done to further define the goals and objectives.

As a result, the Region 2040 project was begun to develop specific land-use and transportation planning policies. In 1995, the RUGGOs were substantially revised to incorporate the 2040 Growth Concept, which is described later in this section. The Regional Framework Plan incorporates the policy statements from the RUGGOs and, upon adoption, will consolidate all Metro land-use planning goals and objectives.

Regulatory relationships

When voters approved the Metro Charter in 1992, they defined specific requirements for Metro's planning programs, including adoption of the Regional Framework Plan. While the policies defined in this plan are binding on Metro, they do not directly regulate local plans. This approach maintains the policy in Goal I of RUGGOs to regulate local plans only with specific implementing ordinances. Elements of the framework plan that are intended to change local plans, will be included in functional plans that define exact standards and procedures for specific jurisdictions.

State legislation (ORS 268) establishes functional plans as the legal mechanism for Metro to "require" changes in comprehensive plans "as it considers necessary." It is through these functional plan requirements and urban growth boundary policies that regional policies directly affect city and county comprehensive plans.

The Metro Charter requires that the Regional Framework Plan must be developed with the consultation and advice of the Metro Policy Advisory Committee (MPAC). All regulatory requirements must be consistent with this Framework Plan, including the 2040 Growth Concept.

Relationships with other governments

The planning and growth management activities of many jurisdictions affect and are affected by the actions of other jurisdictions in the region. In this region, as in others throughout the country, coordination of planning and management activities is essential if urban growth management efforts are to succeed.

In the Portland metropolitan area, representatives from many governments and agencies play critical roles in urban growth management. In addition to Metro's direct partners in the region's 24 cities, three counties and more than 130 special service districts and school districts, the state of Oregon, Tri-Met, the Port of Portland and the Portland Area Boundary Commission make decisions that affect and respond to regional urban growth. And from a broader regional perspective, the cities of Southwest Washington and Clark County are partners in addressing growth management issues such as air quality, transportation and regional economy. Metro also works with nearby Oregon cities outside the Metro boundary to develop complementary policies.

While the Metro Council will make the final decision about policies, Metro has more than a dozen advisory committees that advise the Executive Officer, Metro Council and staff on matters of Metro's responsibility. Membership of the committees is varied, based on the purpose of each committee, and is structured to promote interagency communication and coordination at several levels, as well as citizen involvement.

The *Metro Policy Advisory Committee* (MPAC) is a 21-member charter-mandated committee consisting of mayors, county commissioners and other representatives of local governments. Three citizen members are appointed by Metro's Executive Officer. MPAC provides advice and consultation to the Metro Council on the land-use matters. The committee may authorize Metro to provide or regulate a local government service.

The *Metro Technical Advisory Committee* (MTAC) is a 24-member committee of planning managers, citizens and business representatives that provides technical support to MPAC.

The *Joint Policy Advisory Committee on Transportation* (JPACT) is a 17-member committee that provides a forum for elected officials and representatives of agencies involved in transportation needs in the region to evaluate transportation needs and make recommendations to the Metro Council related to transportation policy. JPACT's discussions usually follow technical assessments by *Transportation Policy Alternatives Committee* (TPAC), whose membership includes technical staff from the same agencies as JPACT, as well as six citizens appointed at-large by the Metro Council.

Future Vision

The spirit of the Regional Framework Plan took root in a charter-mandated document, the Future Vision Report. The first requirement of the Metro Charter, as stated below, was to develop a "Future Vision" that, while not a regulatory document, 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 charter also states:

"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 of 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 connection between the Future Vision and the Regional Framework Plan, as stated in the charter, is that the Regional Framework Plan must "describe its relationship to the Future Vision." That is the intent of this section. The full text of the Future Vision, as adopted by the Metro Council by Ordinance 95-604A, is included in the appendix. However, the following excerpts are useful to include in this plan.

In the Future Vision report, the Future Vision Commission came to the following conclusion regarding carrying capacity:

“This metropolitan area, like all others, exceeded its ability to meet the physical needs of its people long ago. Our style of life depends on the importation of energy, materials, capital and brain power from all over the world. We have also found that traditional biological models of population carrying capacity are simply too narrowly drawn to be of much use in a metropolitan setting. Determining the sustainability of even current population levels at our existing quality of life is greatly complicated by uncertainties due to future technological and global economic changes. In addition, there are difficult questions of value which must be addressed first, since values can be the basis for an analysis of carrying capacity but cannot be derived from such a study. For these reasons, it may not be possible to choose a single sustainable population level for the region.”

Further on, the report states:

“Consequently, we have chosen to approach carrying capacity as an issue requiring ongoing discussion and monitoring. We believe that the relevant question is not when carrying capacity will be exceeded, but how we will collectively restore, maintain and/or enhance the qualities of the region central to sustaining our health, the quality of the natural environment and the ability of future generations to take action to meet the needs of their time.

Sustainable communities will come about through the skillful blending of factual data, our values and new ideas in a public discussion occupying a place of honor in this region, not through blind adherence to numerical thresholds that cannot be specified, much less met. Hence, carrying capacity is not a one-time issue, a single number, a simple answer, but an ongoing question for us all.”

With regard to accommodating new growth, the Future Vision report includes the following recommendations:

“This vision does not call specifically for the creation of new communities. We choose instead to focus on the restoration and redevelopment of what already has been committed to non-resource use.”

“Direct all regional planning efforts to include equitable economic progress for communities throughout the region as a critical component for modeling and evaluation.”

“Address the further diversification of our economy, the creation of family-wage jobs and the development of accessible employment centers throughout the nine-county region in the Regional Framework Plan elements for transportation, rural lands, urban design, housing and water resources.”

“Identify needs and solutions to community problems at the neighborhood level, and actively work to enlist all units of government in supporting and acting on these grassroots agenda rather than allowing governmental entities to insulate themselves from participating.”

“Continue to encourage a choice of neighborhood types, including new neighborhoods with suburban densities, neighborhoods of traditional

(pre-World War II) densities, and mixed-use neighborhoods of a more urban design.”

The relationship of the Regional Framework Plan to the Future Vision is as follows:

- The Future Vision statement provides a beginning point from which policy debate and analysis can begin.
- The Future Vision brings a broad, inclusive perspective to the Regional Framework Plan.
- The Future Vision establishes the approach that all of the issues and problems addressed in the Regional Framework Plan will require an ongoing process of monitoring, analysis and reform in order to meet the needs and expectations of this and future generations.

RUGGOs and the 2040 Growth Concept

The Regional Urban Growth Goals and Objectives (RUGGOs) were developed beginning in 1989, when concerns were voiced about long-term management of the urban growth boundary for the region. While the urban growth boundary was designed to be moved as growth occurred within its historic bounds, how that growth occurred was of great interest. RUGGOs, developed in cooperation with local governments, provided an articulation of the directions the region wanted to take as it grew. (The Regional Framework Plan has incorporated RUGGOs with some amendments to address policy and consistency issues.) When developed, RUGGOs included such goals as maintaining a compact urban form, creating a balanced transportation system and assuring that market-based preferences are not eliminated by regulation. However, these statements, while laudable, did not provide a blueprint for how to achieve these goals. Local governments in particular were concerned about how these statements would be applied to them. RUGGOs were adopted with the provision that no goal would be directly applicable to a city or county in the region, and that a specific articulation of the goals would be developed to assess the stated directions. From this the Region 2040 project began.

Region 2040

Region 2040 began as a way to define the directions established by the Regional Urban Growth Goals and Objectives. It was also intended to determine how Metro should best manage its urban growth boundary, and, ultimately, provided a major contribution to the Regional Framework Plan.

Public values and tradeoffs

The first step was to gauge people's values and preferences about their region. Through a combination of random sample surveys and an extensive public involvement process, Metro learned that there is strong support for investment in a mixture of transit systems instead of funding roads alone, and a preference for growth in developed areas over new areas. However, the public also indicated a strong preference for maintaining neighborhoods, and expressed concern regarding increases in density. While people held negative views about density increases that change the character of neighborhoods, they were willing to accept limited changes in their neighborhoods and increased development adjacent to transit and existing commercial development.

Opinions about the tradeoffs associated with managing growth covered the spectrum, indicating that a successful growth management policy must include a range of options. There was most agreement on the tradeoff involving building roads for cars versus building additional transit systems, with only 14 percent saying building roads was significantly more important than transit.

Creating and analyzing the alternatives

Based on research and public comment, Metro developed a status quo "Base Case" scenario and three growth concepts, then analyzed them for impacts on land consumption, travel times and distances, the effects increased density would have on air quality, open space, and different types of urban forms.

The Base Case assumed growth would occur if development took place in land-use patterns similar to that experienced in the region from 1985 to 1990. An important component of the Base Case was that it looked at the land supply and demand in five-year increments. When there no longer was a 20-year land supply within the UGB, the boundary was assumed to move outward. In addition, when congestion occurred, roads were widened up to a limit of five lanes for arterials and six for freeways.

BASE CASE

Continue Past Trends
354,000 acres in UGB



What we examined:

Urban Form: Greatest expansion of UGB; continuation of development patterns occurring between 1985 and 1990.

Major Roads: 10,780 lane-miles.

Transit: 9,575 daily service-hours, serving almost 47 percent of households.*

What happened:

Congestion: Slightly less than 9 percent of roadways having significant peak-hour congestion due to greatest amount of road construction.

Transit ridership: 266,920 daily riders.

Trip length: Greatest increase in total vehicle miles traveled (VMT); VMT per capita within the UGB would increase 5% over 1990.

* From Region 2040: Recommended Alternative Technical Appendix "Intra-UGB Selected Performance Measures" table.

Base Case findings

The Base Case, in order to accommodate forecast growth consistent with the development patterns of the 1970's and 1980's, needed the expansion of the urban area by about 121,000 acres – an increase of about 70 percent from the current UGB. Of the total expansion, about 98,000 acres were considered to be vacant, buildable acres, of which about 64,000 acres were zoned exclusive farm use.

However, only about 50 percent of the added land would be developed, as the pattern of development within the current UGB in the 1980's had a similar amount of privately owned parcels which were undeveloped. About 70 percent of the housing were assumed to be single family detached (the same as in 1990) and the remaining 30 percent assumed to be multi-family.

This development pattern would mean that the current UGB would expand to North Plains, extend halfway to Sandy, Newberg and expand several miles northwest on Highway 30 towards Scappoose.

Figure 1 Base Case

Assuming that this land would be serviced by adequate roads, sanitary sewer and water, employment was forecast to move outward as well, bringing jobs to those living in outlying areas, but requiring more people to drive and possibly making inner city residents less accessible to jobs. Residential and employment development would be at

low densities with a substantial majority (64 percent) developed in suburban, auto-oriented development patterns. Reductions in the population and vitality of the central city were expected with this pattern as jobs and population moved outward. Comments from law enforcement, fire safety and emergency medical response representatives from the region concluded that because of the substantial increase in service costs and response times, the Base Case development pattern should be avoided.

The Base Case assumed the most amount of roads built and assumed that three new freeways – the Sunrise Corridor, the Westside Bypass and the Mt. Hood Parkway would be built. Forecasted congestion resulting from the land uses and with added roads in the Base Case was about the same as the recommended alternative, but with much fewer roads built in the recommended alternative and much higher transit use in the recommended alternative.

While most areas added to the UGB in the Base Case were assumed to have a somewhat balanced mix of housing, jobs and services, the low development densities made transit service impractical. As a result, auto travel increased and vehicle miles traveled per capita grew by 5 percent over 1990 levels.

The non-auto share of regional travel for the Base Case was about 7 percent of all trips – lower than any of the growth concepts. Bicycle and pedestrian travel in the Base Case dropped to less than 5 percent of all trips, a decrease from the 1990 share, and less than any of the other growth concepts.

The Base Case also had lower transit ridership than any of the other three growth concepts. Radial high-capacity transit routes, such as the Banfield and Westside MAX lines, drew average weekday boardings of only 13,100 to 26,100 riders, which is lower than today's daily ridership. Furthermore, the Base Case had the lowest percentage of households and the lowest percentage of employment served by transit, 47 percent and 79 percent respectively.*

The low transit ridership in the Base Case reflects both the dispersed development pattern assumed in the modeling and the absence of pedestrian enhancements and restricted parking that were assumed for the other three concepts. These factors were excluded from the Base Case to more accurately reflect the relative ease of parking that typically accompanies low density development.

Concept A findings

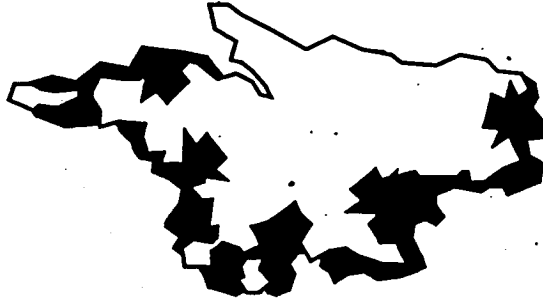
Concept A was based on "growing out" by adding land for residential development to the urban growth boundary. Under Concept A, existing neighborhoods did not experience significant change, and new ones were added both inside and outside the current UGB. In addition, Concept A expanded the transit and highway systems, had the highest congestion, highest air pollution, lowest transit ridership, most dispersed population and highest cost for water service.

Concept A included a more modest expansion of the urban area when compared with the Base Case. It assumed a UGB expansion of about 25 percent, about 55,000 acres, of which about 18,000 acres are zoned for exclusive farm use. Single family lots were assumed to be in the 7,500 - 9,000 square foot range, (about 10 people per acre). Existing vacant single family zoned areas were assumed to have no increase in density from existing zoning. About 74 percent of the housing would be single family with 26 percent multi-family. About sixty-two percent of the residential development was assumed to occur in relatively low density development with little or no transit service because of the cost of service. Along transit corridors, it was assumed that transit service would be frequent and people would have easy access to it. A few main streets and other mixed use developments were assumed, particularly in areas where a high level of transit service was likely. Almost half of the employment growth was forecast to occur in low density areas away from transit and not within city centers. About 4,500 acres of land within the current UGB were assumed to be acquired as new public open spaces.

The road system assumed for Concept A resembled the Base Case in that the three freeways were assumed to be built, but slightly fewer lane miles of other road improvements were included. A radial, high capacity transit system centered on downtown Portland with service to the south, north east, west, southwest and two to the southeast were included. Detailed transportation modeling results from Concept A were similar to the Base Case results. However, compared to the Base Case, the scale of the regional road network was reduced, with a total of 814 additional lane miles added to the existing network. This represents almost a 9 percent increase over 1990, compared to a 16 percent increase in the Base Case. Total transit service hours nearly tripled the 1990 level of 4,983 hours (12,300 daily service-hours).

CONCEPT A

Expand the UGB
284,000 acres in UGB



What we examined:

Urban Form: Significant expansion of the UGB. New growth at urban edge develops mostly in the form of housing.

Major Roads: 10,190 lane-miles.

Transit: 12,322 daily service-hours, serving 49 percent of households.*

What happened:

Congestion: Worst of the four growth concepts, with nearly 12 percent of roadways having significant peak-hour congestion.

Transit ridership: 372,390 daily riders.

Trip length: Total vehicle miles traveled (VMT) more than double 1990 levels; no change to VMT per capita within UGB.

* From Region 2040: Recommended Alternative Technical Appendix "Intra-UGB Selected Performance Measures" table.

Figure 2: Concept A

than in the other growth concepts. The mostly single-family neighborhoods added along the urban fringe in this concept would be difficult to serve with transit, and the lack of nearby services and jobs discouraged bicycle and pedestrian travel. Of the four growth concepts, Concept A had the second smallest share of bicycle and pedestrian trips as a percentage of total person trips.

Concept A had the second lowest percentage of households (49 percent) and the second highest percentage of employment (83 percent) served by transit. It also had the second

Despite these significant improvements to the regional system, Concept A experienced the worst congestion, second lowest transit ridership and the second highest total vehicle miles traveled. While Concept A shows region-wide arterial street congestion, the worst congestion was along Washington County's widely spaced suburban streets. The more closely spaced and fully integrated network of arterials in East Portland and urban Multnomah County were the least congested.

Much of the increase in congestion and vehicle miles traveled was attributed to the assumed separation of homes and businesses. Most areas added to the UGB in this concept were single-family neighborhoods, with few nearby services or jobs. As a result, the arterial streets linking these new neighborhoods to jobs and services were much more congested for longer time periods

lowest daily transit ridership (372,400) of the four growth concepts. Ridership was highest along transit corridors and main streets and to regional centers. The lowest ridership levels were in low-density residential areas with limited service. Compared to the other concepts, transit coverage was somewhat more limited in Concept A, reflecting the difficulty of serving new low-density neighborhoods along the urban fringe.

The results of the transit ridership analysis showed that restricting the UGB expansion area to include only residential growth created major travel demand into the region for employment and for daily services. These results underscore the importance of balancing jobs and housing in communities and centers as a means to shorten the distance traveled between destinations throughout the day.

Concept B findings

Concept B was oriented to "growing up" by increasing densities within the current boundary. The primary feature of Concept B was that 45 percent of new development was accommodated in centers and corridors with high transit levels. In turn, those center and corridors were designed with higher densities. It would require a shift for more multi-family housing units and smaller single-family lot sizes. Concept B would, by design, conserve the highest number of natural areas, open space (about 7,000 acres) and rural land. It would have the most transit ridership; however, it also would have the most light rail constructed and the most hours of transit service.

In order to accommodate the forecasted growth, while not moving the UGB, Concept B assumed a single family/multi-family split of 60 percent single family, 40 percent multi-family. The average lot size of newly created lots was assumed to be 5,800 square feet (as compared with 7,300 in Concept A). Residential densities would average 12 dwelling units per acre. Residential redevelopment was assumed to occur at rates double those of Concept A (11,300 acres of redeveloped lands compared with about 6,00 acres in Concept A or C). Mixed use areas - the Central City, regional centers, town centers, main streets, were assumed to accommodate much more growth - both housing and jobs - than in other concepts. Concept B also assumed the most transit improvements and no freeway additions.

Concept B had the fewest roadway improvements, with less than a 5 percent increase in lane-miles over the 1990 level. Total transit hours of service for Concept B were expanded to 13,192 hours - almost triple the 1990 level, but only 7 percent more than

Concept A. Concept B accommodated growth through development of existing land and infill rather than through urban growth boundary expansion.

Despite having the highest level of transit, bicycle and pedestrian travel of any growth concept, Concept B had the second highest level of congestion. More than 11 percent of all major urban roadways were severely congested compared to less than three percent in

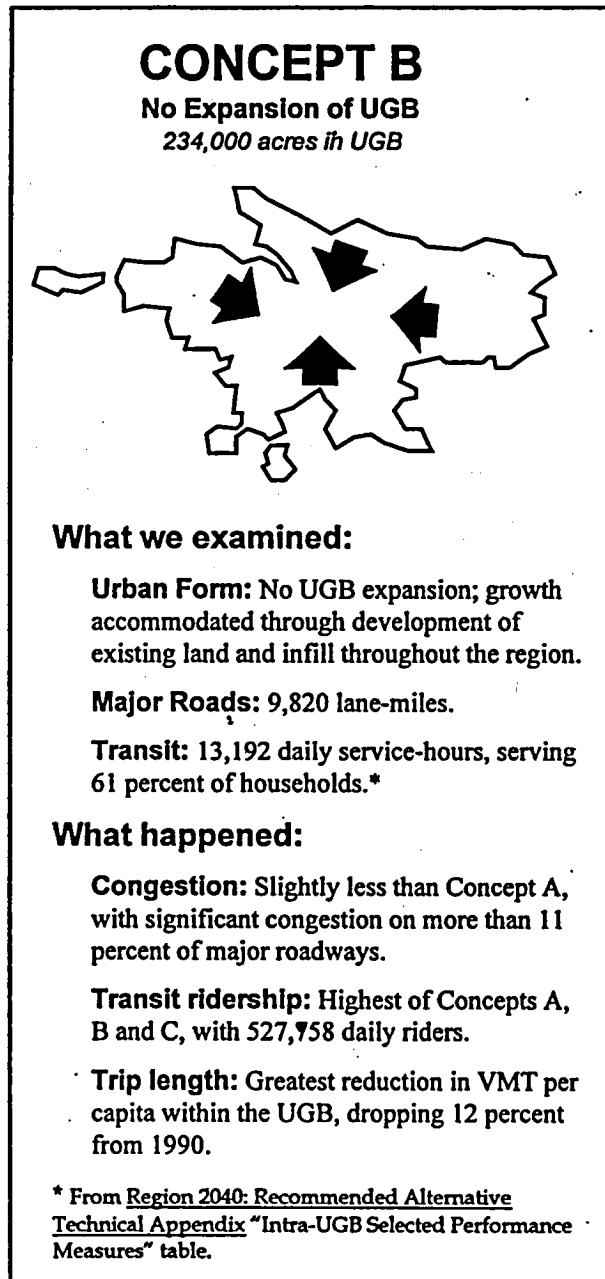


Figure 3: Concept B

1990. Freeway congestion in this concept was limited to isolated bottlenecks. Most of the congested freeways were flanked by equally congested arterials. Vehicle miles traveled dropped below 1990 levels by 12 percent, the lowest of any growth concept.

Concept B had the highest percentage of households (61 percent) and the highest percentage of employment (87 percent) served by transit. Increased bus service drew more riders than in the other growth concepts, especially along main streets and transit corridors. As in Concept A, bus ridership was highest east of the Willamette River. However, with the exception of a few transit corridors and main streets, bus service west of the Willamette River was more difficult to provide because of topography and lower household and employment densities.

Radial high-capacity transit corridors into downtown Portland had significantly greater daily ridership than circumferential

routes or extensions to points along the urban edge. The major radial corridors, such as the Banfield and Westside MAX lines, ranged from 25,600 to 81,000 daily boardings. Circumferential routes, such as along Highway 217, ranged from 6,400 to 23,100 daily boardings.

The significant growth in transit, bicycle and pedestrian travel, along with predicted widespread congestion in Concept B, underscores the importance of having land uses easily served by transit and a balance of road and transit improvements.

Concept C findings

Concept C combined aspects of A and B, but accommodated about one-third of the growth in neighboring "satellite" cities. These areas would become relatively self-sufficient communities with an even mix of jobs and housing. About two-thirds of the people who live in the satellite cities would work there also. Concept C assumed that the UGB would increase by about 23,500 acres, about half of these lands currently zoned for exclusive farm use. The split of single family to multi-family was assumed to be 69/31, about that of 1990 with an average new lot size of 8,300 square feet (about that of 1990). Because a substantial amount of the growth was assumed to occur outside the region, accommodating expected growth was relatively easy. Concept C also assumed that sufficient jobs to accommodate the population increases would occur within the satellite cities. Concept C would achieve the lowest congestion and have the second highest transit use. Cost for developing Concept C would be high and implementation difficult.

Unlike the other concepts, Concept C directed a substantial number of jobs and houses to existing neighboring "satellite" cities just outside the current UGB. This growth strategy relied on green corridors to limit access to, and minimize urban development pressure on, resource lands adjacent to transportation corridors that link neighboring towns to regional centers. Green corridors also helped to prevent neighboring cities from expanding toward the Metro UGB, and therefore helped to maintain distinct communities.

In general, Concept C performed well in several categories because of a smaller population increase in the metro area, with a slight reduction in vehicle miles traveled, somewhat reduced trip lengths over current levels and relatively efficient roadway speeds. Congestion levels were the lowest of the four growth concepts, with slightly more than 8 percent of roadways having significant peak-hour congestion. Transferring one-third of development and population growth to neighboring cities outside the UGB

accounted for the relatively lower congestion level. Vehicle miles traveled per capita within the UGB dropped by nearly 4 percent over current levels compared to 12 percent in Concept B. However, Concept C showed the largest increase in VMT per capita outside the urban areas as a result of traffic between the metropolitan area and satellite cities.

Of the four growth concepts, Concept C had the second largest share of bicycle and pedestrian trips as a percentage of total person trips, accounting for more than 5 percent of all trips. It also had the second highest percentage of households (58 percent) and the second lowest percentage of employment (83 percent) served by transit.

The modeling projected more than 437,000 daily transit riders in Concept C, exceeding Concept A, but significantly less than the nearly 530,000 riders projected for Concept B. Radial high-capacity transit corridors within the main urban area of Concept C would have higher ridership than Concept A, but less than Concept B, with daily boardings ranging from 27,000 to 59,000 riders. Circumferential light-rail routes on Highway 217 and I-205 had lower ridership, with about 12,000 daily boardings.

The evaluation of Concept C found that if growth was directed away from the metropolitan area and to neighboring cities, there would be less need for transportation

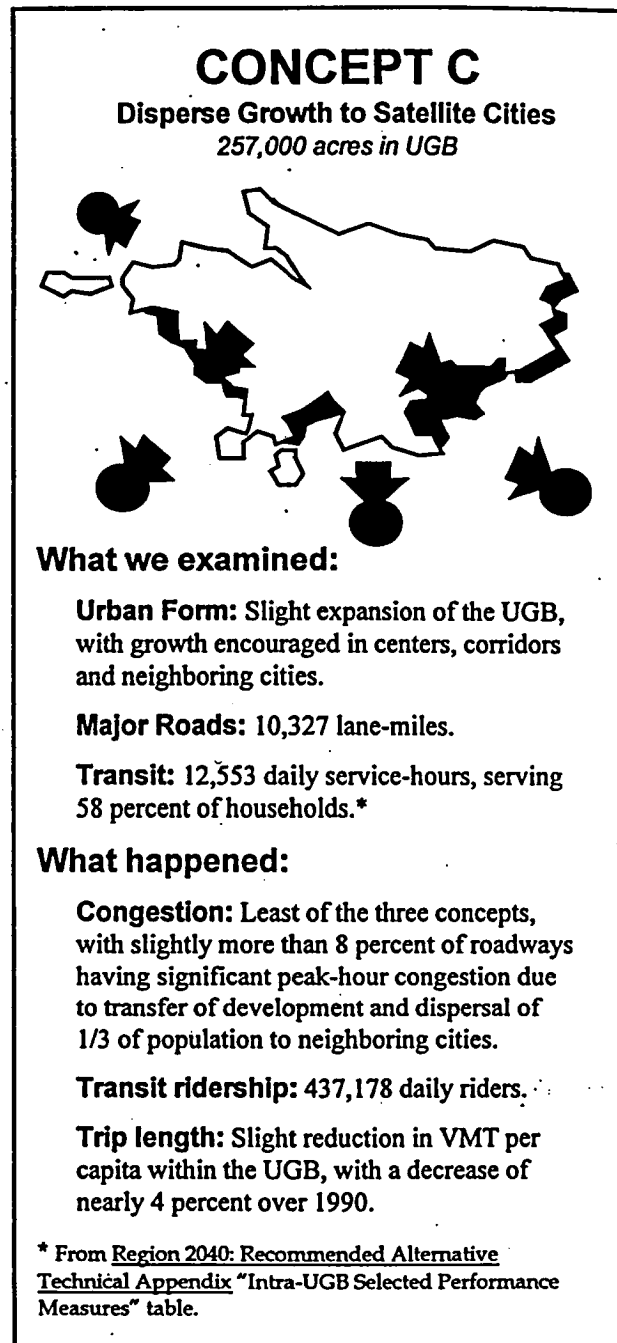


Figure 4: Concept C

improvements in the metropolitan area, but more need for transportation improvements in the tri-county area. Some satellite cities have minimal connections to the main urban area and would require major investments to provide adequate access. Other towns, such as Sandy and North Plains, have major highway connections that have already promoted suburban development. As a result, Concept C raises key policy issues about the mix of urban travel routes and rural land uses. Concept C analysis also points to the need to direct regional growth strategically, such as placing jobs near housing and providing office, retail, other commercial services and housing in higher-density, mixed-use centers that are pedestrian-friendly and served by transit.

Following is a summary table as well as statements describing what technical conclusions were reached concerning the alternatives.

Table 1: Comparison of 1990 Conditions and Growth Alternatives

Category	Measures	1990	BC	A	B	C
Buildable Acres (No estimate of satellite acres)	Central City	39	48	67	100	67
	Regional Centers	134	273	369	507	403
	Sub Regional Centers	36	41	218	323	151
	Commercial Nodes	998	2,285	4,229	5,322	4,338
	Main Streets	7	8	127	791	342
	Transit Corridors	460	4,925	7,462	9,370	5,955
	Other	52,063	49,181	49,353	48,653	49,580
	New UGB	0	98,214	42,500	0	17,738
	Total	53,736	154,974	104,325	65,066	78,574
Distribution of Development	Central City	7%	5%	5%	7%	6%
	Regional Centers	1%	1%	2%	4%	4%
	Sub Regional Centers	1%	1%	1%	2%	1%
	Commercial Nodes	7%	9%	15%	17%	13%
	Main Streets	1%	1%	1%	3%	2%
	Transit Corridors	9%	18%	14%	21%	12%
	Other	71%	52%	46%	42%	44%
	New UGB	0%	8%	13%	0%	2%
	Satellites	3%	5%	5%	5%	16%
Location of Growth	% of growth in UGB	100%	93%	87%	100%	82%
	% of growth accom. by redevelopment	0%	0%	6%	18%	8%
	EFU Conversion (Acres)	0	63,900	17,200	0	11,400
	% of Employment on Industrial land	32%	43%	53%	33%	53%
Zoning	Single Family	59.0%	61.0%	57.0%	46.5%	51.5%
	Multi-Family	11.0%	11.0%	1.0%	5.0%	1.5%
	Commercial	7.0%	8.5%	1.0%	1.0%	1.0%
	Industrial	19.5%	16.0%	12.0%	10.0%	14.0%
	Mixed Use (commercial and residential)	0.0%	0.0%	24.0%	30.5%	27.0%
	Parks/Open Space	1.5%	1.5%	3.0%	5.0%	3.0%
	Public Facilities	2.0%	2.5%	2.0%	2.0%	2.0%
Density	People per Acre	8.9	7.9	9.8	12.4	9.2
	% High Density (centers) + 50 persons/acre	8.9%	7.4%	7.9%	11.2%	13.6%
	% Medium Density (corridors) 20-50 persons/acre	17.6%	29.1%	30.1%	43.0%	32.3%
	% Low Density (other) less than 20 persons/acre	73.7%	63.5%	61.9%	44.0%	54.2%
Housing	Single Family / Multi Family (percent)	70/30	70/30	74/26	60/40	69/31
Transportation (all measures inside Metro UGB)	Average VMT per Capita	12.4	13.04	12.48	10.86	11.92
	Mode Split: Auto/Transit/ Walk-Bike (percent)	92/3/5	92/3/5	91/4/5	88/6/6	89/5/6
	Lane Miles	5,304	6,777	6,377	5,557	6,116
	Transit Service Hours	4,965	9,575	12,322	13,192	12,553
	Congested Roadway Miles (PM peak hour)	150.5	505.6	682.0	642.6	403.9
Air Quality	CO Winter (Kg/day)	835,115	614,451	613,537	579,579	569,091
	CO Summer	574,708	528,601	525,133	496,017	487,188
	HC Summer	177,857	70,700	69,810	66,375	65,745
	NOx Summer	80,452	94,024	90,987	83,817	86,988
Water	Drinking Water Costs			Moderate	Low	Moderate
	Wastewater Costs			Moderate	Moderate	High
	Stormwater Costs			Moderate	Moderate	Moderate

The following summarizes the findings and directions that were concluded after the alternatives analysis. These conclusions form the technical basis for construction of the Growth Concept.

Land use

The land-use pattern inside the urban growth boundary is more important than the size or shape of the urban area. However, a compact urban region was generally less expensive to serve; required less transportation infrastructure; directed reinvestment to under-used areas inside existing urban areas; preserved more open space, farm and forest land; and resulted in better air quality.

Off-street parking is a major user of land in commercial areas.

Single-family homes and lots consume the most land. Small changes in new lot sizes can have substantial effects on the amount of land needed to accommodate growth.

Transportation

Overall vehicle miles traveled would increase in all the growth concepts, although vehicle miles traveled per capita would decrease under the more compact forms.

Land-use policies are essential and effective in reducing vehicle miles traveled, in encouraging non-auto transportation and in reducing congestion.

A greater mix of uses and strong regional centers resulted in less congestion and more transit ridership.

New regional highways should be evaluated on their ability to support planned regional centers.

A radial light-rail transit system functions as the backbone for regional transit and shapes the region's land-use form.

Transit success is linked to the ease of pedestrian travel, and pedestrian travel is made more practical by transit.

Pedestrian trips should be considered a basic element in virtually all urban designs.

Trips made by bicycles are important and should be treated quite differently than trips made by pedestrians.

Arranging transit and higher-density land uses together resulted in better light rail and overall transit ridership using fewer service hours.

Parking limitations, pedestrian amenities and land-use considerations were more effective in reducing vehicle miles traveled and increasing transit ridership in compact, more densely developed urban areas rather than lower-density land uses.

Areas with many small- and medium-sized arterials and closely connected local streets accommodated growth with less congestion than areas with larger, more widely spaced arterials and less connected local streets. Dense, well-connected street networks also benefited transit, pedestrian and bicycle travel.

Green corridors limited access to, and minimized urban development pressure on, rural lands adjacent to transportation corridors that linked neighboring towns to the nearest regional center. Green corridors also helped maintain distinct communities by preventing neighboring cities from expanding toward the Metro UGB.

Identifying urban connectors through rural areas minimized the impact of urban travel on rural land uses.

The density of the regional network should be expanded to accommodate areas of increased population and employment growth.

The assumptions of prior transportation plans should be re-evaluated, such as re-examining congestion and developing an updated plan around currently acceptable congestion levels.

More compact urban forms and land use patterns and increased opportunities for transit, bicycling and walking will contribute to significant reductions in vehicle emissions.

Urban centers worked best when connected by a set of multi-modal corridors that accommodated auto, transit, bicycle and pedestrian travel to varying degrees.

Employment areas and industrial areas worked best with more roadway connections, especially truck routes, and better access to the regional freight network via air, truck, rail and water.

Air quality

Forecasts for transportation-generated air pollution in the Base Case and the growth concepts show significant decreases in tons per day from 1990 levels for hydrocarbons

and carbon monoxide. That type of air pollution is relatively small compared to total emissions.

Air pollution forecasts for the Base Case and the concepts show increased nitrogen oxides compared to 1990, although the Concept B provides a significant reduction from the base case.

In future years, because of vehicle emission improvements, non-transportation sources of hydrocarbons will tend to increase as the population also increases.

Social stability

Strong communities with a sense of place tend to be safer places for residents.

Compact areas can have faster emergency response times.

Effective affordable housing programs should be a component of urban growth management.

Employment

Estimates of supply and demand for employment land suggest that some areas are out of balance.

Suburban employment is likely to increase.

Housing

A balance of jobs and population for many sub-areas of the region does not exist today. The current Metro housing rule requires that one-half of land zoned residential must be for multi-family housing. This is more than would be built in any of the concepts, except for Concept B.

There are areas within the region with too little or too much land for single-family or multi-family housing.

Water, sewer and stormwater

Concept B has the lowest costs for water and sanitary sewer service.

Stormwater costs are indistinguishable among the concepts.

Concentration of development does have limitations. When growth can be accommodated using existing infrastructure, or incorporating replacements of infrastructure that has outlived its useful life, redevelopment and compact development can be substantially less expensive. When redevelopment requires major replacements of infrastructure that is still useful, it can become more expensive than development of vacant land.

Values

People realize this region is unspoiled compared to most other metropolitan areas. Because of this, they are apprehensive about change.

People love the accessibility of the car but think that transit, biking and walking should be made easier and more convenient.

People don't want any more density than is necessary in their neighborhoods.

The nature of growth

Much of the growth will come from in-migration.

The average age of the population will increase substantially and its ethnic diversity will increase.

Slowing growth

Slow-growth policies based on building limits have been unsuccessful elsewhere and appear to be counterproductive.

Current state law prohibits regulations that would stop or slow growth.

A good strategy is to respond to specific problems resulting from growth. This may have the effect of slowing growth compared to policies that simply accommodate all growth regardless of the costs.

Satellite cities

The effect of pushing growth into satellite cities whether existing or new is not likely to be an effective option. Creation of new cities is very difficult and existing cities outside the metro area are likely to be greatly impacted by this approach as are the connecting roads. Accordingly, Metro should work with other cities as neighbor cities in a cooperative approach and drop satellite city policy.

General conclusions

It would be difficult to make substantial expansions to the urban growth boundary. The land consumption patterns of the last generation cannot continue in the future. This means that substantial changes in urban development will occur.

We should seek a jobs and housing balance.

We must conserve connections with the natural landscape.

Equitable financing of public facilities should be a prerequisite for development.

Determining the public's values

Once the growth concepts were analyzed for technical aspects, Metro went back to the public with the results of the analysis and some important questions. Every household in the region (approximately 500,000) received a mailer that included a survey consisting of the following four questions. More than 17,000 households returned completed surveys.

Following are the results of this survey:

Should we reduce the average new residential lot size from the current 8,500 down to 7,000? See Figure 5.

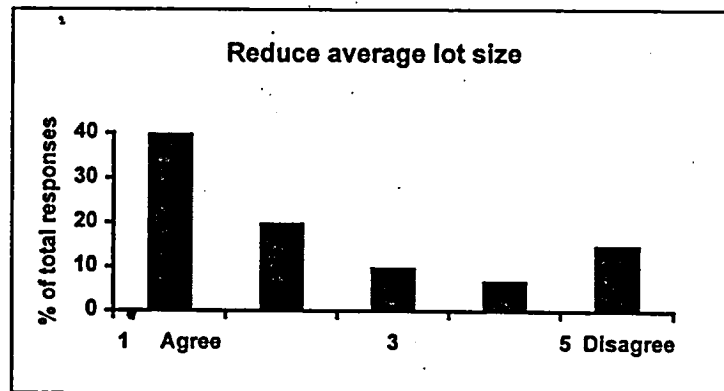


Figure 5: Reduce average lot size graph

Should we decrease the number of parking spaces allowed for retail and commercial development? See Figure 6.

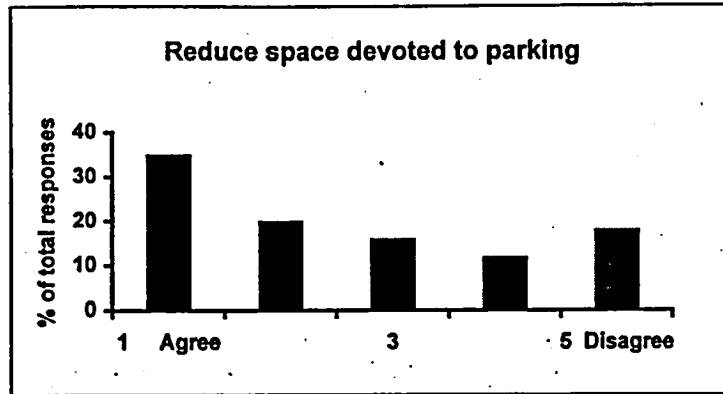


Figure 6: Reduce space devoted to parking graph

Should we increase the amount of residential and retail development along bus lines and light-rail stations? See Figure 7.

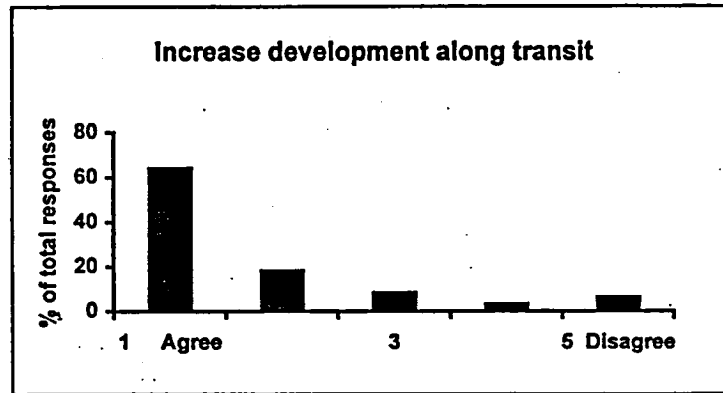


Figure 7: Increase development along transit graph

Should we encourage more growth in city centers and the redevelopment of land for more compact growth? See Figure 8.

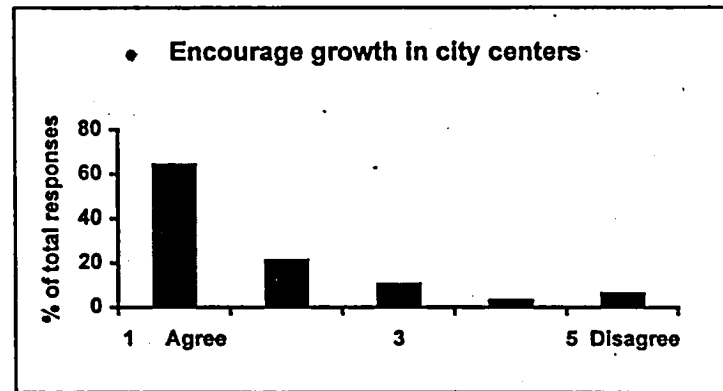


Figure 8: Encourage growth in city centers graph

Metro merged insights from the technical analysis with the survey results to create a recommended alternative, which was a hybrid of the growth concepts.

Assessing the Growth Concepts – Concepts A, B and C – was a learning process. Judging detailed, different land use and transportation alternatives allowed technical analysis and an airing of public views about what was valued and what wasn't.

From the public comments and technical analysis of the alternative growth concepts, a "Recommended Alternative" was crafted.

Recommended Alternative

248,000 to 252,000 acres*



What we examined:

Urban Form: Growth encouraged in centers and corridors with increased emphasis on redevelopment and infill.

Major Roads: 10,483 lane-miles.

Transit: 11,966 daily service-hours, serving 63 percent of households.**

What happened:

Congestion: Slightly more than Concept C, but less than the Base Case and Concepts A and B. Significant congestion on less than 9 percent of major roadways.

Transit ridership: Most ridership with least transit service hours. Higher than Concepts A, B and C, with 570,000 daily riders.

Trip length: The second lowest reduction in VMT per capita within UGB, dropping almost 11 percent from 1990.

*. The Metro Council approved 18,579 acres as Urban Reserves in March, 1997 for a total of 251,246 acres.

** From Region 2040: Recommended Alternative Technical Appendix "Intra-UGB Selected Performance Measures" table.

Figure 9: Recommended Alternative

Recommended Alternative achieves this performance inspite of building fewer miles of roads, thus providing better performance for less public dollars. The Recommended

Design of this alternative enabled the development of a growth concept better able to respond to public and technical concerns. For example, the Recommended Alternative assumed that some additional urban growth boundary expansion would need to be coupled with more compact and efficient use of lands within the current urban growth boundary. In addition, some of the more ambitious transit and road improvements were scaled back and industrial designations were refined.

In comparing the Recommended Alternative with Concepts A, B and C, we find that the Recommended Alternative, as a blend (and having learned from A, B and C) is expected to have superior performance. It is more compact than any alternative except B, affecting less farm and forest lands or other rural uses. Analysis also shows that the Recommended Alternative has less vehicle miles traveled than any alternative except C (which exported 1/3 of the growth to neighboring cities), has less congestion than any alternative except C (again which has 1/3 less growth to accommodate). The

Alternative also has the best air quality and the least cost for providing roads, water, sewer and stormwater facilities except Concept B. The Recommended Alternative's compact urban form provides a less costly urban form than all other alternatives except Concept B.

Often it is asked – how does the Recommended Alternative compare with today? While this gives a point of comparison, it must be remembered that the Recommended Alternative is accommodating about 830,000 additional people (about 87% of them within an expanded UGB) and providing about 530,000 additional jobs more than in the region in 1990.

Not surprisingly, there is more congestion in the future than today (from 151 congested road miles in 1990 to 454) and the number of acres of land developed increases. However, there are other important considerations. Surprisingly, air quality is better with over 40 percent decrease in winter carbon monoxide and greater than 50 percent decrease in summer hydrocarbons when compared with 1990 levels. This is in great part due to a combination of cleaner cars replacing older, more polluting ones, but the role of transit and land use patterns are also expected to make a difference.

Another change from current conditions concerns vehicle miles traveled per capita. With the land use and transportation changes, VMT/capita is forecast to decrease slightly from 1990 levels.

While comparison with the other alternatives – A, B and C - or current conditions, is informative, it is important to address a fundamental question concerning the Recommended Alternative and existing policies – that is, what is the difference between continuing on our present course or making substantial course changes. Comparison with the Base Case provides the opportunity for this. The following table highlights important differences:

Table 2: Comparison of the Base Case and the Recommended Alternative		
<i>Factor</i>	<i>Base Case</i>	<i>Recommended Alternative</i>
Acres added to Urban Growth Boundary	98,214	14,500
Acres of Farmland Consumed	63,900	3,545
Single Family/Multi-Family Ratio	70/30	65/35
Congested Road Miles	506	454
Lane Miles Constructed	1,473	734
Vehicle Miles per Capita	13.04	11.76
Average Speed (miles per hour)	28	26
Mode Split (auto/transit/walk & bike)	92/3/5	88/6/6
Transit Service Hours	9,575	11,966
Transit Ridership	338,323	570,007
Transit Riders/Transit Service Hour	35	48

Reviewing these data and public comment, the Metro Council began hearings on the Recommended Alternative.

The preferred alternative was then presented for review and comment through a series of public hearings. Based on suggestions from local governments and citizens, scores of changes were made, and a preliminary growth concept was adopted by resolution in 1994. The 2040 Growth Concept was adopted in December, 1995, as part of RUGGOs. Other amendments to RUGGOs policies were adopted with the 2040 Growth Concept. The amended RUGGOs were submitted to the Land Conservation and Development Commission for review. In December, 1996, amended RUGGOs, including the 2040 Growth Concept text and map, were "acknowledged" to be consistent with all applicable statewide land use laws, goals and rules. The growth concept accommodates approximately 720,000 additional residents and 350,000 additional jobs, a total population of approximately 1.8 million residents within the expanded UGB.

The following chapters describe the region's adopted growth concept and how it is intended to be achieved.

Land Use

Chapter 1 Land Use

Overview

Fundamental to this plan is the assumption that the region should decide its desired urban land-use form and then provide the transportation and other facilities and services necessary to implement that desired form. That is, land-use policies should be the initial target in shaping the region's public policy. This chapter focuses on regional land-use policies and identifies the land-use aspects of the Regional Framework Plan.

One of the principal tools for shaping the region's land-use form is the urban growth boundary. State law requires urban growth boundaries for all urban areas of the state. Metro, in this region, is assigned the responsibility for managing the urban growth boundary and designating areas for future urban development called "urban reserve areas." State law also requires urban growth boundaries to be managed so that adjacent rural resources, primarily farms and forests, are conserved, while ensuring that sufficient capacity is provided to accommodate expected growth and to provide needed housing.

As Metro considered the long-term management of the region's urban growth boundary in the early 1990s, it concluded that development patterns and coordination of planning – particularly for land-use and transportation – inside the UGB were critical concerns. As a result, urban form alternatives including consideration of already developed lands within the current urban growth boundary as well as rural lands adjacent to the UGB were developed and analyzed. Metro, in cooperation with the citizens of the region and its local government partners, concluded that a compact urban form was the preferred urban form alternative.

Concurrent with the urban form decision, the Future Vision Report noted that the region's livability must also be a major part of the region's goals. "Livability values" is a broad term that equally applies to issues addressed in other chapters of this plan, such as parks, open spaces, and water quality. Livability issues such as housing density, urban form and settlement patterns also have a direct effect on urban form. Protecting some of the open spaces within the current urban growth boundary and permitting some

expansion of the current urban area allows accommodation of forecasted growth. It also allows protection of some of the existing natural areas of the region and encourages reinvestment in existing urban areas and ensures that the density of new urban development is not too great.

Given the relationship between compact urban form and the region's livability, this chapter of the Framework Plan addresses regional land-use policies, including those relating to the following charter-mandated regional framework plan components:

- management and amendment of the urban growth boundary
- protection of lands outside the urban growth boundary for natural resource, future urban or other uses
- housing densities
- urban design and settlement patterns.

Hopefully these coordinated policies will result in building livable communities.

Background

Future Vision

As noted above, the Future Vision statement is the broadest set of declarations about our region. The Regional Framework Plan is required to describe its relationship to the Future Vision. With regard to land-use, the Future Vision notes many values including the following:

“We value natural systems for their intrinsic value, and recognize our responsibility to be stewards of the region’s natural resources.”

“Widespread land restoration and redevelopment must precede any conversion of land to urban uses to meet our present and future needs.”

“We value economic development because of the opportunities it affords us all, but recognize that there can be true economic development only with unimpaired and sustainable natural ecosystems, and suitable social mechanisms to ensure dignity and equity for all and compassion for those in need.”

“We value our regional identity, sense of place and unique reputation among metropolitan areas, and celebrate the identity and accomplishments of our urban neighborhoods and suburban and rural communities.”

“We value a life close to the beauty and inspiration of nature, incorporated into urban development in a manner that remains a model for metropolitan areas into the next century.”

“We value vibrant cities that are both an inspiration and a crucial resource for commerce, cultural activities, politics and community building.”

“Direct all regional planning efforts to include equitable economic progress for communities throughout the region as a critical component for modeling and evaluation.”

“Address the further diversification of our economy, the creation of family-wage jobs and the development of accessible employment centers throughout...the region in the Regional Framework Plan elements for transportation, rural lands, urban design, housing and water resources.”

“Focus public policy and investment on the creation of mixed-use communities that include dedicated public space and a broad-range of housing types affordable to all.”

“Incorporate specific expectations for a basic standard of living for all citizens in Regional Framework Plan elements concerned with urban design, housing, transportation, and parks and open space.”

“Specifically incorporate historic preservation and landscape ecology in Regional Framework Plan elements concerned with transportation, housing, urban design, rural lands and the UGB, parks and open space, and bi-state governance.”

Regional Framework Plan relationships to these statements will be described in the discussion following.

Urban growth boundary

State law assigns Metro responsibility for managing the region's urban growth boundary, one tool for managing growth, which separates urbanizable land from rural land. The boundary was established in 1979 and included 24 cities (Beaverton, Cornelius, Durham, Fairview, Forest Grove, Gladstone, Gresham, Happy Valley, Hillsboro, Johnson City, King City, Lake Oswego, Maywood Park, Milwaukie, Oregon City, Portland, Rivergrove, Sherwood, Tigard, Troutdale, Tualatin, West Linn, Wilsonville and Wood Village) and the urban metropolitan portions of Clackamas, Multnomah and Washington counties. The UGB has been reevaluated about every five to seven years to assess whether capacity for the next 20 years is available. Since the UGB's inception, fewer than 3,000 acres of land have been added. As of the first quarter of 1997, the UGB contained 232,667 acres. Expansion of the UGB from 1978-1997 was only a little more than 1.2 percent increase.

Approximately every five years, Metro revisits the region's urban land needs for the next 20 years and estimates the growth capacity within the UGB. A state law now requires Metro to demonstrate that there is a sufficient 20-year future capacity, which, if previous

forecasts were not higher than actual growth, must be remedied by more efficiently using the land within the current UGB or by expanding it.

Urban reserves

The Oregon Land Conservation and Development Commission (LCDC) mandated that Metro designate urban reserves adjacent to the urban growth boundary as a means of managing long-term regional growth. Designating urban reserves allows communities and the region to more cost-effectively plan and phase in public infrastructure (sewer, water, streets, schools, etc.) and enables private interests to plan development with more certainty. Careful development of urban reserves also may allow communities to plan more livable communities and conserve natural resources.

LCDC's Urban Reserve Area Rule (especially Goal 14, Factors 3 – 7) and the requirements of OAR 660-04-010 are the basis for considering urban reserves.

Compiling the state criteria and using data available or created to address state criteria, the region's selection criteria for urban reserves include:

Factor 3: utility feasibility, road network, traffic congestion and schools

Factor 4: efficiency of land and buildable land

Factor 5: environmental constraints, access to centers, jobs/housing balance

Factor 6: agricultural retention

Factor 7: agricultural compatibility

Metro designated urban reserve areas in March, 1997, to meet projected urban land needs to the year 2040. Counties are required by the Urban Reserve Area Rule to adopt rural zoning to preserve designated urban reserves for future urban use.

As the Metro Council considered possible urban reserve areas, they concluded that establishing priorities for bringing in urban reserve lands would be helpful to property owners, service providers and citizens. Accordingly, the Metro Council, with the advice of local jurisdictions, established "First Tier" lands within the urban reserves. These First Tier lands are those thought to be most easily served with urban services and for which adjacent cities or the county have indicated capacity to serve. About 4,100 acres of land are designated as First Tier of the 18,579 total acres designated as Urban Reserves. When these lands would be brought into the boundary remains an outstanding

Metro Council decision. The designation does establish, as a formal Metro policy, which lands would be brought in first.

Housing

The state's Metropolitan Housing Rule (OAR 660, Division 7) requires local jurisdictions to "plan for local residential housing densities that support net residential housing density assumptions underlying the urban growth boundary."

In addition, ORS 197.303 states that cities' and counties' needed housing means "...housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels. " It also "...includes, but is not limited to attached and detached single-family housing and multiple family housing for both owner and renter occupancy; (b) government assisted housing; (c) mobile home or manufactured dwelling parks... (d) manufactured homes on individual lots planned and zoned for single-family residential use that are in addition to lots within designated manufactured dwelling subdivisions."

In addition to these requirements, the state requires that cities and the urban portions of counties in the region must "...provide the opportunity for at least 50 percent of new residential units to be attached single family or multiple family housing..." and provide an "...overall density of six, ...eightor ten or more dwelling units per net buildable acre..." Relatively small cities with some growth potential of less than 8,000 persons for the active planning area were required to provide zoning for at least six dwelling units. This applied to the cities of Cornelius, Durham, Fairview, Happy Valley and Sherwood. The urban portions of Clackamas and Washington counties and the cities of Forest Grove, Gladstone, Milwaukie, Oregon City, Troutdale, Tualatin, West Linn and Wilsonville were to provide at least eight dwelling units per acre. The urban portion of Multnomah county and the cities of Portland, Gresham, Beaverton, Hillsboro, Lake Oswego and Tigard were to provide 10 dwelling units per acre.

Analysis

The urban growth boundary is one of the primary tools available to the region for managing urban form. In turn, the capacity of the boundary to accommodate growth is of critical importance to managing the UGB. Assessment of the current UGB capacity includes analysis of nine variables. These are:

- a forecast of population and jobs for the next 20 year period
- an estimate of the amount of unbuildable land (land over 25 percent slope, etc.);
- reductions to remaining buildable land for streets, parks, etc.
- reductions for the probable difference between zoning maximum densities and actual built densities
- consideration of time to allow local jurisdictions to make zoning changes if higher densities are to be allowed and required
- reductions for buildable parcels with full buildout obstacles (e.g., land with 8-24 percent slopes, etc)
- an estimate of the probable amount of additional redevelopment
- projections of probable infill on built land
- evaluation of the amount of farm tax assessment lands within the current UGB that are likely to be urbanized.

(See the *Urban Growth Report* for a detailed description of these factors).

The Metro Council has tentatively concluded that capacity for the 248,000 additional dwelling units needed to accommodate the year 2017 forecasted need is not totally available within the current urban growth boundary. The following table provides a step-by-step description of the process, assumption and initial conclusions about the current capacity of the region's urban growth boundary.

It is important to note that the variables include several new factors never before measured or considered when the capacity of the UGB was calculated. These include assessing the amount of infill and redevelopment capacity within the current UGB and assuming implementation of the 2040 Growth Concept. Estimating infill and redevelopment potential increased the total estimated potential capacity of the UGB significantly. About 30 percent of the jobs and more 20 percent of the demand for housing is estimated to be accommodated through infill and redevelopment. These forecasts are based on actual rates occurring now in the region. This responds to statements in the Future Vision about land restoration and redevelopment as well as recognizing what is actually happening in the market.

Assuming that the Growth Concept will be implemented in UGB capacity calculations also responds to issues raised in the Future Vision. The Growth Concept includes "mixed-use communities" and a "broad range of housing types" by including regional centers, town centers, main streets, station communities and employment areas. These are all design types which encourage mixed-use development. The Growth Concept also is designed to protect existing neighborhoods by directing the higher density

development to these mixed-use areas where transit service is most frequent. Assuming that this zoning will be applied and that the market will respond remains a supposition based on the requirements of Metro's Urban Growth Management Functional Plan. However, recent data concerning the past few years indicates that job growth is more than 100 percent of the Growth Concept goal and that residential growth is up to 83 percent of goal. Activity in the next few years will provide verification of these trends and will demonstrate the extent that the Growth Concept is achievable.

Table 3: Calculation of Current Urban Growth Boundary Capacity

Calculation of Current Urban Growth Boundary Capacity¹ (Numbers to be Added)				
	Action	Acres of Land	Dwelling Units	Jobs
Step 1	Determine total land area in the UGB	232,667	n/a	n/a
Step 2	Subtract developed land, bodies of water, etc. ²	- 177,630 = 55,040	n/a	n/a
Step 3	Subtract acres of already platted lots	- 1,590 = 53,450	n/a	n/a
Step 4 (variable 2)	Subtract estimate of unbuildable lands such as slopes over 25%, etc.	-15,950 = 37,500	n/a	n/a
Step 5 (variable 3)	Subtract estimate of land for future streets, schools, parks, etc.	-12,710 =24,790	n/a	n/a
Step 6	Convert available buildable land to Metro 2040 Growth Concept as dwellings and jobs	24,790	204,320	318,080
Step 7 (variables 4 & 6) (27%)	Subtract capacity to compensate for difficult sites and not building to maximum densities	n/a	- 52,220 =152,100	-22,330 =295,750
Step 8 (variable 5) (5 years)	Estimate and subtract capacity to allow time for cities and counties to rezone	n/a	-8,020 =144,080	-8,630 =287,120
Step 9 (variable 7)	Add estimate of redevelopment capacity	n/a	+41,410 =185,490	+136,860 =423,980
Step 10 (variable 8)	Add estimate of infill capacity	n/a	+21,110 =206,600	+43,700 =467,680
Step 11 (variable 1)	Add in capacity of already platted lots	n/a	248,000	462,000
Step 12 Capacity Surplus/(Deficit)	Estimate and subtract capacity of farm tax assessed lands not likely to be built on	n/a	(41,400)	5,680

Needed UGB expansion in acres

4,140³

¹ For a more detailed explanation of these data, see the *Urban Growth Report*, Metro, May, 1997.

² Data for developed land and platted, but vacant parcels as of 9/1/95.

³ Assumes average density of 10 dwelling units per buildable acre as stated in Metro Code Chapter 3.01. Total acres needed may be more if not all lands within urban reserves are buildable.

The Metro Council has asked for nine additional data items in order to complete its decision about the capacity of the current urban growth boundary. Once the decision is completed, urban reserves will be used to address any deficits. The first tier urban reserves total about 4,100 acres. Some of the lands within the first tier are not buildable (some contain creeks, already developed small parcels, steep slopes, etc.). If the Metro Council conclusion about the present UGB capacity is similar to its initial conclusion, expansion of the UGB will likely include all first tier lands and consider some additional lands in order to fully accommodate the estimated need.

Housing

Table 3 included estimates of needed urban housing for the region to the year 2017. In order to ensure that housing choice is provided, more detailed data about housing needs of the region are necessary.

Table 4 is from the draft *Housing Needs Analysis* describing the region's housing needs to the year 2017. After consideration of public testimony and any other additional requested data, the Metro Council may revise the table to ensure that Metro has acted consistent with the region's projected housing needs.

Table 4: Regional Housing Need 1995 - 2017, Based on the Metro 2040 Growth Concept (Urban Metro Area Only - Includes Vacancy Rate)

Monthly Rental Cost	Approximate Equivalent Ownership Price	Number of New Housing Units Needed	Housing Type Distribution					
			Detached Homes			Attached Homes		
			Detached Single Family & Manufactured Homes on Individual Lots	Detached Small Lot Single Family & Mobile Homes and Manufactured Housing in Parks	Attached Single Family & Rowhouses	Multiple Family Low Rise	Multiple Family Mid Rise	Multiple Family High Rise
\$0-199 ²	n/a	0	n/a	n/a	n/a	A,R	A,R	A,R
200-299 ²	< 49,999	2,372	n/a	n/a	n/a	A,R	A,R	A,R
300-399 ²	50-59,999	10,303	n/a	n/a	n/a	A,R	A,R	A,R
400-499	60-74,999	25,766	n/a	n/a	A,R	A,R	A,R	A,R
500-599	75-89,999	32,874	O	O ³	A,R	A,O,R	A,O,R	A,O,R
600-749	90-114,999	38,683	O	O	O,R	O,R	O,R	O,R
750-999	115-149,999	51,637	O	O	O,R	O,R	O,R	O,R
1,000-1,165	150-174,999	38,941	O	O	O,R	O,R	O,R	O,R
1,166-1,330	175-199,999	12,647	O	O	O,R	O,R	O,R	O,R
1,331+	200,000 +	35,677	O	O	O,R	O,R	O,R	O,R
Total Units:		248,900	SF Units Range: 104,699 - 137,497 ⁴		Rowhouse Units: 20,712-53,539		Multi-Family Units: 86,574 -97,175	
Single Family/Rowhouse/Multi-Family Split ⁵ : 42/19/39 - 55/10/35				Assisted Housing Units ⁷ : 54,883 - 86,242				

1. "n/a" means not available in the cost/price range. Ownership tenancy within the lower range of prices is a rough estimate.
2. Assisted Housing means housing provided through Government Assisted Housing programs, non-profit organizations or households paying more than 30 percent of income for housing. Additional assisted housing for larger households also may be provided on a limited basis in other categories than those listed above.
3. "O" means that the new housing is expected to be owner occupied; "R" means that the housing is expected to be renter occupied. "A" means assisted housing.
4. Of this between 5,750 and 25,062 manufactured homes would be needed.
5. To calculate the total number of housing units needed, you must add the high end of the detached single family range to the low end of the attached home range, or vice-versa. Total demand for housing units is not assumed to change, but actual housing preferences could range within the estimates of the ranges cited.
6. Housing needs projected in this chart are cited to the level of individual units in order to be consistent with model results. However, these are forecasts and should be considered to be accurate to the nearest 1,000 units.
7. Estimate for UGB plus Urban Reserves. Low estimate preserves current % of income spent on housing. High estimate derived from separate analysis where share of household income spent on housing was 30%. Low estimate which is calculated consistently with the other data used in the Table is used to calculate housing needs.
8. Assumes 35 % to 50 % of assisted housing will be multifamily. Conversely, we assume 65% or 50% will be single family of which ½ will be detached and ½ will be attached.
9. Housing demand and supply analysis is based on a "baseline projection" assuming that no new single family dwelling units are produced on the private market below \$110,000 and no new multifamily rental units are produced below \$550 per month rent. \$ estimates are in 1995 \$.

Placeholder – Include Metro Council decision on the Housing Needs Analysis here, when concluded

As can be seen, a wide variety of housing types will be needed to meet expected future demand in the region. Differing construction types, including manufactured housing, stick built and some high-rise structures are included. Ownership and rental options are also included, as are varieties in housing density. No one housing type can supply the varying needs of the region.

It is also important to consider the dynamics of residential development in the region. (for a more detailed description of this analysis see the *Housing Needs Analysis*, May 1997.)

The regional economy is cyclical and the region is likely to continue to have times of high and low growth rates. The importance of these cycles is that there is a correlation between high growth rates and high housing prices/low affordability. In the late 1970s, we had high growth rates and low affordability at rates comparable to current conditions.

Housing prices in the region are high and housing affordability is lower than some times in the region's past. In particular, this causes those who rent or first-time homebuyers to get less housing or pay much more of their household income than recommended. However, housing prices are only slightly higher than those in other metropolitan regions in the nation and are lower than most metropolitan areas in the West.

Interestingly, the region is at historic highs with regard to the number of units being built. Accordingly, an unchanging or slowly increasing supply does not seem to be the primary obstacle to lowering housing prices.

Limitations to increased production include:

- home builders can "ramp-up" production only so quickly
- the increasing cost of land and labor
- lack of urban infrastructure to vacant buildable lands
- local government zoning inflexibility can limit development options and reduce the capacity of the region to accommodate growth. This results in more expensive housing.
- higher standards including those for stormwater management, seismic standards, energy conservation, etc. (However, these costs existed before the regulations, they were simply paid for in a different way – homes were flooded, residents paid more

for heating costs, etc. These "extra" costs may also be thought of as cost shifts rather than increased cost.)

It is estimated that about 2/3 of the forecast growth is from people moving to the region. In addition, the demographic characteristics of the total population is expected to change. The future population is expected to be on average older, have more years of education, have fewer people per household and be more racially diverse. Inherent in these forecasts is that continuing in-migration will be attracted by a continuing robust economy and preeminent livability. Also of note, a smaller average household size means a demand for more housing units even if total population did not change.

Another finding of the technical analysis of housing market dynamics of this region is that the demand for land is much more elastic than previously thought. That is, most people are not willing to pay much more for a larger lot. Therefore, the market is likely to adjust if higher densities are allowed. In fact, the market has already adjusted to 83 percent of Growth Concept residential densities during the 1993 to 1995 period. The biggest obstacle to accommodating this density of development seems to be existing zoning regulations, which may limit change in some area. As building size has much more influence on total housing cost than the cost of raw land, unless average house size built drops dramatically, expanding the urban growth boundary greatly could likely only result in lower densities, not lower housing costs.

Another dynamic of our region can be illustrated by comparison with other metropolitan areas. For example, in most regions in the country, a deteriorating inner urban core is the source of affordable, if less desirable, housing. However, in this region, the value of close-in housing has not depreciated, rather, it has appreciated substantially from values in the early 1980s even adjusting for inflation. In some cases, appreciation in inner urban areas has outstripped the appreciation in more suburban locations. As long as these areas retain a high quality of life, they will remain desirable and not be a source of affordable housing.

It is also important to note that if new lands are added to the urban growth boundary, they will not effectively increase the supply of buildable land until infrastructure (roads, sewer, water, etc.) are available or provided. If the public is not willing to fiscally support these services in a timely manner, either standards must be lowered or new property owners (through the housing price passed on by the developer or builder) must be able to pay for these services. Alternatively, very large tracts of buildable lands must be made available (e.g., 500-1,000 acre pieces of flat farmlands) so that economies of scale can be realized.

Another factor in housing dynamics is that housing expectations have been rising. If the average house built in 1950 were built today, the result would likely be affordable housing. The average house built in 1950 was about 800 square feet (with a much larger average household size than today). In contrast, the average home built today is about 1,900 square feet. Simply put, one way to produce affordable housing is to build small homes on small lots.

A substantial number of today's households (currently about 12 percent) are subsidized or assisted housing. Subject to very major changes to the regional housing market and/or state and federal government policy changes, it is likely that this percentage of assisted housing will be needed in the future.

Housing costs are likely to be high and unaffordable in the future when high rates of growth occur. There is only so much that can be done to address affordability during these times. If the inner core housing remains desirable, high growth rates continue, low public interest in substantial urban expansion on farmlands persists and low public support for substantial public infrastructure extensions remains, then public policy initiatives to encourage affordable housing will be needed if additional affordable housing is to be provided.

Consistent with the analysis above and concerns stated in the Future Vision statement regarding "...a broad range of housing affordable to all," the following table lists recommendations for a "fair share" of the affordable housing that would need to be constructed within each jurisdiction in order to supply the region's affordable housing need.

Table 5: Recommended Needed Additional Affordable Housing If Affordable Housing is to be Achieved Throughout the Region

City/County	Total Housing Units (1995-2015)	Assisted Housing Estimates: No Income Shift	Assisted Housing Estimates: Income Shift*
Beaverton	12,916	3,694	1,534
Cornelius	851	129	77
Durham	n/a	n/a	n/a
Fairview	2,707	479	247
Forest Grove	1,334	305	144
Gladstone	505	38	24
Gresham	12,122	2,948	1,336
Happy Valley	1,888	290	109
Hillsboro	13,230	2,792	1,144
Johnson City	n/a	n/a	n/a
King City	n/a	n/a	n/a
Lake Oswego	2,472	556	284
Maywood Park	n/a	n/a	n/a
Milwaukie	2,890	516	210
Oregon City	3,226	844	358
Portland	55,608	10,427	5,176
Rivergrove	n/a	n/a	n/a
Sherwood	4,713	1,096	425
Tigard	4,994	1,236	532
Troutdale	2,270	365	227
Tualatin	3,067	750	290
West Linn	2,082	492	207
Wilsonville	3,953	601	364
Wood Village	344	55	32
Clackamas County	49,348	7,565	4,642
Multnomah County	10,405	3,608	1,620
Washington County	55,471	9,698	4,859
Total	246,396	48,484	23,841
* Given the limited resources available for subsidized housing, this is the most likely behavioral adjustment to a limited supply of low- and moderate- income housing.			

The above recommendations will be used as individual urban reserves adjacent to cities or within counties are analyzed for affordable housing programs.

Placeholder – Include Metro Council decision on the Housing Needs Analysis here, when concluded.

Urban reserves

Urban reserve areas are lands designated for future expansion of the urban growth boundary when needed. Recognizing that accommodation of future growth within the current UGB is only one way to address future growth, more than 23,000 acres of lands adjacent to the current urban growth boundary were analyzed for suitability as urban reserves. These urban reserve study areas were determined by the Metro Council after consideration of public testimony and technical analysis. The technical analysis included consideration of land forms and the landscape ecology of the region. Land forms such as the Boring Lava domes and water features such as streams, floodplains and wetlands were mapped and considered along with avoidance of lands protected as exclusive farm and forest lands all around the current UGB. Avoidance of most of these features was directed by the Metro Council as it determined which areas to study as urban reserves. This direction relates to the Future Vision statement that suggests that "...specifically incorporate...landscape ecology in Regional Framework Plan elements concerned with transportation, housing, urban design, rural lands and the UGB...."

During a period of more than two years, a technical analysis of the study areas was completed, and discussion and public testimony was heard and considered by the Metro Council. On March 6, 1997, the Metro Council designated 18,579 acres of urban reserves. The location of these urban reserves is shown on the Metro 2040 Growth Concept Map, attached and incorporated into this plan as Exhibit A.

The adopted urban reserves provide an estimated 23-year inventory of land beyond the 20-year supply to be maintained within the urban growth boundary. From these reserves, the region can expand as needs are unable to be met within the current urban growth boundary.

In addition, a "first tier" of urban reserves lands – lands to be brought into the urban growth boundary first – has been designated. A set of requirements to be met prior to development also has been added to the Metro Code (see appendix, Metro Code chapter 3.01 for more details) to ensure that the transition from rural to urban within the first tier and other urban reserves addresses critical issues including governance, land-use planning, provision and funding of needed public facilities, conservation of natural resources and affordable housing.

While there are direct connections between the urban growth boundary and urban reserves, it should be noted that one of the fundamental aspects of urban growth boundaries is that they are intended to expand as needed to provide capacity for

projected growth. Urban reserves, whether there is an immediate demand, provide clear policy direction about where the boundary will move over time and allow both private and public sectors to anticipate and act accordingly.

Economic opportunity

The regional economy, like all economies, is subject to cycles – periods of faster growth and slower growth. Currently the region has very low unemployment and relatively high rates of construction. Some of these conditions may be the result of local policies, but, as much of the country as a whole is experiencing similar conditions, other factors, outside the region, clearly also play a role. It seems likely that these conditions will not continue indefinitely, and economic circumstances will change. When change does occur, interest in addressing future unemployment is likely to increase. However, the results of any corrective actions may take time to take hold. Accordingly, actions to address economic conditions must consider that there is a time lag between action and outcome. There may be few short-term regional economic fixes.

The region has effectively used several strategies to maintain economic activity. One strategy has been to maintain the region's livability. This includes conservation of and access to the natural landscape as well as more traditional considerations such as attention to the transportation system, public infrastructure, etc. A second strategy has been to encourage efficient use of land within the region. While housing at prices or rents consistent with jobs could be improved in some areas, the region is relatively compact, making jobs and housing reasonably close. As long as sufficient land for housing and jobs are provided and sufficient natural areas are conserved, these strategies can continue to keep the region attractive and provide a competitive advantage when compared with other metropolitan areas of the country. A third strategy has been to designate large amounts of industrial land such as the sunset corridor, Columbia south shore and in Tualatin.

Analysis of employment growth in the region has found that about 40 percent of new jobs are on lands considered "developed." Second shifts are added, office space per person is reduced or other measures are taken to accommodate more workers within existing buildings. Redevelopment of existing buildings or removal and replacement also constitute means of securing additional density. Another means of adding capacity is that additional building space may be added to lands assumed to be fully developed. While either of these methods are not as noticeable as new buildings built on vacant lands, this job capacity is significant.

Another economic consideration is diversification of the region's economy. The bulk of new jobs come from small businesses. Many small businesses provide a diversified and stable economy when compared to an alternative of reliance on a relatively few large businesses. Having more small businesses also provides more opportunities for people to own their own businesses and likely provides more business interest in community affairs.

The Future Vision states that the Regional Framework Plan should "address the further diversification of our economy, the creation of family-wage jobs and the development of accessible employment centers throughout...the region in the Regional Framework Plan elements for transportation, rural lands, urban design, housing and water resources." In addition, it recommends the Regional Framework Plan "incorporate specific expectations for a basic standard of living for all citizens in Regional Framework Plan elements concerned with urban design, housing, transportation, and parks and open space."

The Growth Concept provides access to most areas of the region via many different modes, especially transit service. This is in contrast to some metropolitan areas which have urban inner cores with difficult transit access to suburban jobs. The region apparently does have some attractiveness to smaller businesses, as the region has been named two years running as the No. 1 large "city" ("Portland, OR/Vancouver, WA") for entrepreneurs ("The Nations Entrepreneurial Hot Spots," October 1995 and October 1996 Entrepreneur Magazine).

Accordingly, policies that encourage smaller businesses to form, expand and prosper would seem to be more effective than other methods of maintaining a stable economy.

Urban/rural transition

The concept of separating urban areas, or rural reserves, emerged during the Region 2040 planning process. Rural reserves would serve to separate and protect rural lands from lands within the urban growth boundary over a 50-year period.

Rural reserves would include land used for farms, forestry, natural preserves and very low-density rural residential development and might receive priority status for new park and open space acquisitions. New commercial or industrial development would be restricted, and highway interchanges, other highway access to the rural road system and extensions of urban services would be prohibited.

Rural reserves might also be used to separate cities and break urban patterns within the urban growth boundary. Rural lands already create separation between Cornelius and Hillsboro, and Tualatin, Sherwood and Wilsonville.

Neighbor cities

The future of the region is closely linked to our neighbor cities. Their growth will affect us, as ours will affect them. By coordinating planning efforts, we can help ensure livability inside and outside our borders.

Based on projections, Sandy, Canby and Newberg will grow the most. And as a result of strong transportation connections, Woodburn, Scappoose and North Plains will also experience growth pressure. Conversely, with poor transportation connections, Estacada will probably experience less growth.

Based on analysis done in *Concepts for Growth*, developing an effective neighbor cities strategy could help contain traffic congestion by keeping 65 percent of work traffic and 90 percent of non-work traffic within neighbor cities. This strategy relies on using rural reserves to separate neighbor cities from urban areas, working cooperatively with neighbor cities to balance jobs and housing within their communities and directing transportation through green corridors.

Protection of agriculture and forest lands

More than 233,000 acres of rural resource lands (zoned exclusive farm and forest) exist within the tri-county area. With the Metro Council decision on Urban Reserves, 3,085 acres of resource lands were designated as urban reserves, leaving more than 230,000 acres of remaining resource lands in the tri-county area. The Future Vision states that "rural lands shape our sense of place by keeping our cities separate from one another, supporting viable farm and forest resource enterprises and keeping our citizens close to nature, farm, forest..." Further, it states that the Regional Framework Plan should "actively reinforce the protection of land currently reserved for farm and forest uses for those purposes." While not all rural resource lands were protected, less than 2 percent were affected by the urban reserve decision – a decision that is estimated to provide a 23 year supply of buildable land beyond the capacity within the current UGB.

Schools

The Future Vision includes a substantial number of declarations about the need for education in the region. While land-use policies may not directly impact educational opportunity, there are clear relationships between education and land use. One of the most important is that if the objective is to build better communities, schools should be one of the anchors for a community. The urban reserves designated by the Metro Council include language that provides school districts the opportunity to participate in planning urban reserves. This may allow for adequate and suitable school sites, and may also allow neighborhoods to be centered around future needed schools.

Policies

Following are Regional Framework Plan policies for land use and to generally guide urban development in the region:

1.1 Urban form

The quality of life and the urban form of our region are closely linked. The Growth Concept is based on the belief that we can continue to grow and enhance livability by making the right choices for how we grow. The region's growth will be balanced by:

- maintaining a compact urban form, with easy access to nature
- preserving existing stable and distinct neighborhoods by focusing commercial and residential growth in mixed-use centers and corridors at a pedestrian scale
- assuring affordability and maintaining a variety of housing choices with good access to jobs and assuring that market-based preferences are not eliminated by regulation
- targeting public investments to reinforce a compact urban form.

1.2 Built environment

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

- a regional "fair-share" approach to meeting the housing needs of the urban population
- the provision of infrastructure and critical public services concurrent with the pace of urban growth and that supports the 2040 Growth Concept
- the continued growth of regional economic opportunity, balanced so as to provide an equitable distribution of jobs, income, investment and tax capacity throughout the region and to support other regional goals and objectives

- the coordination of public investment with local comprehensive and regional functional plans
- the creation of a balanced transportation system, less dependent on the private automobile, supported by both the use of emerging technology and the location of jobs, housing, commercial activity, parks and open space.

1.3 Housing

The Metro Council shall adopt a "fair share" strategy for meeting the housing needs of the urban population in cities and counties based on a subregional analysis that provides for:

- a diverse range of housing types available within cities and counties inside the UGB;
- specific goals for low- and moderate-income and market rate housing to ensure that sufficient and affordable housing is available to households of all income levels that live or have a member working in each jurisdiction;
- housing densities and costs supportive of adopted public policy for the development of the regional transportation system and designated centers and corridors;
- a balance of jobs and housing within the region and subregions.

1.4 Economic opportunity

Metro should support public policy that maintains a strong economic climate through encouraging the development of a diverse and sufficient supply of jobs, especially family wage jobs, in appropriate locations throughout the region.

In weighing and balancing various values, goals and objectives, the values, needs, choices and desires of consumers should also be taken into account. The values, needs and desires of consumers include:

- low costs for goods and services
- convenience, including nearby and easily accessible stores; quick, safe, and readily available transportation to all modes
- a wide and deep selection of goods and services
- quality service
- safety and security
- comfort, enjoyment and entertainment.

Expansions of the UGB for industrial or commercial purposes shall occur in locations consistent with this plan and where an assessment of the type, mix and wages of existing and anticipated jobs within subregions justifies such expansion. The number and wage

level of jobs within each subregion should be balanced with housing cost and availability within that subregion. Strategies should be developed to coordinate the planning and implementation activities of this element with Policy 1.3: Housing and Policy 1.8, Developed Urban Land.

1.5 Urban Vitality

Special attention shall be paid to promoting mixed-use development in existing city and neighborhood centers that have experienced disinvestment and/or are currently underutilized and/or populated by a disproportionately high percentage of people living at or below 80 percent of the area median income. In creating these designations, Metro shall consider new and existing community plans developed by community residents.

1.6 Growth Management

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

- encourages the evolution of an efficient urban growth form
- provides a clear distinction between urban and rural lands
- supports interconnected but distinct communities in the urban region
- recognizes the inter-relationship between development of vacant land and redevelopment objectives in all parts of the urban region
- is consistent with the 2040 Growth Concept and helps attain the region's objectives.

1.7 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 that recognizes the likely long-term prospects for regional urban growth.

- **Boundary Features** – The Metro UGB should be located using natural and built features, including roads, rivers, creeks, streams, drainage basin boundaries, floodplains, power lines, major topographic features and historic patterns of land use or settlement.
- **Sense of Place** – Historic, cultural, topographic and biological features of the regional landscape that 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.
- **Urban Reserves** – "Urban reserve areas," designated pursuant to LCDC's urban reserve rule for purposes of coordinating planning and estimating areas for future

urban expansion, shall be consistent with these goals and objectives, and reviewed by Metro at least every 15 years.

- Inclusion of land within an urban reserve area shall generally be based upon the locational factors of Goal 14. Lands adjacent to the UGB shall be studied for suitability for inclusion within urban reserves as measured by factors 3 through 7 of Goal 14 and by the requirements of OAR 660-04-010.
- Lands of lower priority in the LCDC rule priorities may be included in urban reserves if specific types of land needs cannot be reasonably accommodated on higher priority lands, after options inside the UGB have been considered, such as land needed to bring jobs and housing into close proximity to each other.
- Lands of lower priority in the LCDC rule priorities may be included in urban reserves if needed for physical separation of communities inside or outside the UGB to preserve separate community identities.
- Expansion of the UGB shall occur consistent with the urban/rural transition, developed urban land, UGB and neighbor city objectives. 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 UGB, Metro will work with affected cities and counties to ensure that rural development does not create obstacles to efficient urbanization in the future.

1.8 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. In coordination with affected agencies, encourage the redevelopment and reuse of lands used in the past or already used for commercial or industrial purposes wherever economically viable and environmentally sound.

Redevelopment and Infill – When Metro examines whether additional urban land is needed within the UGB, it shall assess redevelopment and infill potential in the region. 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.

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 UGB to

meet that portion of the identified need for land not met through commitments for redevelopment and infill.

1.9 Urban Growth Boundary

The regional UGB, 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 RUGGOs and adopted Metro Council procedures for UGB amendment. In the location, amendment and management of the regional UGB, Metro shall seek to improve the functional value of the boundary.

Expansion into Urban Reserves – Upon demonstrating a need for additional urban land, major and legislative UGB amendments shall only occur within urban reserves once adopted, unless urban reserves are found to be inadequate to accommodate the amount of land needed for one or more of the following reasons:

- Specific types of identified land needs cannot be reasonably accommodated on urban reserve lands
- Future urban services could not reasonably be provided to urban reserves due to topographical or other physical constraints
- Maximum efficiency of land uses within a proposed UGB requires inclusion of lower priority lands other than urban reserves in order to include or provide services to urban reserves.

Urban Growth Boundary Amendment Process – Criteria for amending the UGB shall be derived from statewide planning goals 2 and 14, other applicable state planning goals and relevant portions of the RUGGOs:

- Major Amendments. Proposals for major amendment of the UGB shall be made 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.
- 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.

1.10 Urban Design

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

- the recognition and protection of critical open space features in the region

- public policies that encourage diversity and excellence in the design and development of settlement patterns, landscapes and structures
- ensuring that incentives and regulations guiding the development and redevelopment of the urban area promote a settlement pattern that:
 - link any public incentives to a commensurate public benefit received or expected and evidence of private needs
 - is pedestrian “friendly,” encourages transit use and reduces auto dependence
 - provides access to neighborhood and community parks, trails and walkways, and other recreation and cultural areas and public facilities
 - reinforces nodal, mixed-use, neighborhood-oriented design
 - includes concentrated, high-density, mixed-use urban centers developed in relation to the region’s transit system
 - is responsive to needs for privacy, community, sense of place and personal safety in an urban setting
 - facilitates the development and preservation of affordable mixed-income neighborhoods.

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.

1.11 Neighbor Cities

Growth in cities outside the Metro UGB, occurring in conjunction with the overall population and employment growth in the region, should be coordinated with Metro’s growth management activities through cooperative agreements which provide for:

Separation – The communities within the Metro UGB, in neighbor cities and in the rural areas in between will all benefit from maintaining the separation between these places as growth occurs. Coordination between neighboring cities, counties and Metro about the location of rural reserves and policies to maintain separation should be pursued.

Jobs Housing Balance – To minimize the generation of new automobile trips, a balance of sufficient number of jobs at wages consistent with housing prices in communities both within the Metro UGB and in neighboring cities should be pursued.

Green Corridors – The “green corridor” is a transportation facility through a rural reserve that serves as a link between the metropolitan area and a neighbor city which also limits access to the farms and forests of the rural reserve. The intent is to keep urban

to urban accessibility high to encourage a balance of jobs and housing, but limit any adverse effect on the surrounding rural areas.

1.12 Protection of Agriculture and Forest Resource Lands

Agricultural and forest resource land outside the UGB shall be protected from urbanization, and accounted for in regional economic and development plans, consistent with these RUGGOs.

Rural Resource Lands – Rural resource lands outside the UGB that have significant resource value should actively be protected from urbanization.

Urban Expansion – Expansion of the UGB shall occur in urban reserves, established consistent with the urban rural transition objective.

Farm and Forest Practices – Protect and support the ability for farm and forest practices to continue. The designation and management of rural reserves by the Metro Council may help establish this support, consistent with the Growth Concept.

1.13 Growth Concept

The Growth Concept states the preferred form of regional growth and development and includes the 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 UGB 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.

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

The basic philosophy of the Growth Concept is to preserve our access to nature and build better communities for the people who live here today and who will live here in the future. The Growth Concept applies the above policies with the technical analysis to guide growth for a period up to the next 50 years. The Growth Concept is an integrated set of objectives subject to all Regional Framework Plan policies.

The 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 Regional Framework Plan policies may be needed to reflect the results of additional planning to maintain the consistency of implementation actions with the stated policies.

Fundamental to the Growth Concept is a multi-modal transportation system that assures mobility of people and goods throughout the region, consistent with transportation policies. By coordinating land uses and this transportation system, the region embraces its existing locational advantage as a relatively uncongested hub for trade.

The basic principles of the Growth Concept directly apply to the Regional Framework Plan policies, especially those of this chapter. An urban to rural transition to reduce sprawl, keeping a clear distinction between urban and rural lands and balancing redevelopment, is needed. Separation of urbanizable land from rural land shall be accomplished by the UGB for the region's 20-year projected need for urban land. That boundary will be expanded into designated urban reserves areas when a need for additional urban land is demonstrated. About 18,600 acres of lands shown on the Growth Concept map have been designated by the Metro Council as urban reserves. The Growth Concept also 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 UGB are one key to the Growth Concept. Creating higher density centers of employment and housing and transit service with compact development, retail, cultural and recreational activities in a walkable environment is intended to provide efficient access to goods and services, enhance multi-modal transportation and create vital, attractive neighborhoods and communities. 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, housing and unique blends of urban amenities so that more transportation trips are likely to remain local and become more multi-modal.

In keeping with the jobs-housing balance in centers, a jobs-housing balance by regional sub-areas can and should also be a goal. This would account for the housing and employment outside centers, and direct policy to adjust for better jobs-housing ratios around the region.

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 UGB and the ability of the region to accommodate housing and employment. Green areas on the Growth 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, such as "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 may indicate a need to balance other parts of the Growth Concept to retain the compact urban form contained in the Growth Concept. Each jurisdiction will certainly adopt a unique mix of characteristics consistent with each locality and the overall Growth Concept.

Neighbor Cities

The Growth Concept recognizes that neighboring cities surrounding the region's metropolitan area are likely to grow rapidly. There are several cities proximate to the Metro region. The Metro Council shall pursue discussion of cooperative efforts with neighboring cities. Full neighbor city recognition could be achieved with the completion of intergovernmental agreements concerning the following key concepts cited. 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 four 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 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.
3. Each neighboring city should have its own identity through its unique mix of commercial, retail, cultural and recreational opportunities which support the concentration of jobs and housing.
4. There should be consideration of a "green corridor," transportation facility through a rural reserve that serves as a link between the metropolitan area and a neighbor city with limited 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. Metro will seek limitations in access to these facilities and will seek intergovernmental agreements with ODOT, the appropriate counties and neighbor cities to establish mutually acceptable growth management strategies. Metro will link transportation improvements to neighbor cities to successful implementation of these intergovernmental agreements.

Cooperative planning between a city outside the region and Metro could also be initiated on a more limited basis. These cooperative efforts could be completed to minimize the impact of growth on surrounding agriculture and natural resource lands, maintain a separation between a city and the Metro UGB, minimize the impact on state transportation facilities, match population growth to rural resource job and local urban job growth and coordinate land-use policies. Communities such as North Plains and other communities adjacent to the region such as Estacada and Scappoose may find this more limited approach suitable to their local situation.

Rural Reserves

Some rural lands adjacent to and nearby the regional UGB and not designated as urban reserves may be designated as rural reserves. This designation is intended as a policy statement by Metro to not extend its UGB into these areas and to support neighboring cities' efforts not to expand their urban growth boundaries into these areas. The objectives for rural land planning in the region will be to maintain the rural character of the landscape to support and maintain our agricultural economy, and to avoid or

eliminate conflicts with farm and forest practices, help meet regional needs for open space and wildlife habitat, and help to clearly separate urban from rural land. This will be pursued by not expanding the UGB into these areas and supporting rural zoning designations. These rural reserves 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 urban uses in the foreseeable future, an idea that requires agreement among local, regional and state agencies. They are areas outside the present UGB 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. Zoning would be for resource protection on farm and forestry land, and very low-density residential (no greater average density 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. Urban reserve study areas 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 and Trail Corridors

The areas designated open space on the Concept map are parks, stream and trail corridors, wetlands and floodplains, largely undeveloped upland areas and areas of compatible 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.

Local jurisdictions are encouraged to establish acres of open space per capita goals based on rates at least as great as current rates, in order to keep up with current conditions.

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 UGB would have to be calculated without these, and plans to accommodate housing and employment would have to be made without them. Second, 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, compatible 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 UGB 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. Some could be protected by environmental zoning that allows very low-density residential development through the clustering of 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 an 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 cultural and recreational activities and "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. Areas of high unemployment and low property values should be specially considered to encourage reinvestment and redevelopment. Incentives and tools to facilitate redevelopment in centers should be identified.

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 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 about the same rate as the rest of the region and would remain the location of about 20 percent of regional employment. To do this, downtown Portland's 1990 density of 150 people per acre would increase to

about 250 people per acre. Improvements to the transit system network, development of a multi-modal street system and maintenance of regional through routes (the highway system) would provide additional mobility to and from the city center.

Regional Centers

There are nine 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 and Gateway serve most of the Portland area as a regional center. Downtown Beaverton and Washington Square serve the east Washington County area, and downtown Oregon City, 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 high-quality transit service, multi-modal street networks and act as major nodes along regional through routes. The Growth Concept estimates that about 3 percent of new household growth and 11 percent of new employment growth would be accommodated in these regional centers. From the current 24 people per acre, the Growth Concept would allow for about 60 people per acre.

Transit improvements would include light-rail connecting all regional centers to the central city. A dense network of multi-modal arterial and collector streets would tie regional centers to surrounding neighborhoods and other centers. Regional through-routes would be designed to connect regional centers and ensure that these centers are attractive places to conduct business. The relatively small number of centers reflects not only the limited market for new development at this density but also the limited transportation funding for the high-quality transit and roadway improvements envisioned in these areas. As such, the nine regional centers should be considered candidates and ultimately the number should be reduced or policies established to phase in certain regional centers earlier than others.

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, employment and cultural and recreational 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 Cedar 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. They provide a place for densities that are somewhat higher than today and feature a high-quality pedestrian environment and convenient access to transit. Typical new developments would include rowhouses, duplexes and one- to three-story office and retail buildings, and average about 25 persons per acre. While some corridors may be continuous, narrow bands of higher intensity development along arterial roads, others may be more nodal, that is, a series of smaller centers at major intersections or other locations along the arterial that have high quality pedestrian environments, good connections to adjacent neighborhoods and good transit service. As long as the average target densities and uses are allowed and encouraged along the corridor, many different development patterns – nodal or linear – may meet the corridor objective.

Station Communities

Station communities are nodes of development centered around a light-rail or high-capacity transit station that feature a high-quality pedestrian environment. They provide for the highest density outside centers. Station communities would encompass an area approximately one-half mile from a station stop. The densities of new development would average about 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; 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, together they are estimated to accommodate 27 percent of the new households of the region and nearly 15 percent of new employment.

Main Streets and Neighborhood Centers

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 about 39 per acre. Main streets would accommodate nearly 2 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. Main streets form neighborhood centers as areas that provide the retail and service development at other intersections at the focus of neighborhood areas and around MAX light-rail stations. When several main streets occur within a few blocks of one another, they may also 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 include areas such as Portland, 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 about 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 cities such as Forest Grove,

Sherwood and Oregon City, and any additions to the UGB. From 1990 levels of nearly 10 people per acre, outer neighborhoods would increase to about 13 per acre. These areas would accommodate about 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 street connections, a recent phenomenon that has occurred in the last 25 years. It is one of the primary causes of increased congestion in new communities. 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. To improve local connectivity throughout the region, all areas shall develop master street plans intended to improve access for all modes of travel. These plans shall include eight to 20 local street connections per mile, except in cases where fewer connections are necessitated by constraints such as natural or constructed features (for example streams, wetlands, steep slopes, freeways, airports, etc.)

Industrial Areas and Employment Areas

The Portland metropolitan area economy is heavily dependent upon wholesale trade and the flow of commodities to national and international markets. The high quality of our freight transportation system and, in particular, our intermodal freight facilities are essential to continued growth in trade. The intermodal facilities (air and marine terminals, freight rail yards and common carrier truck terminals) are an area of regional concern, and the regional framework plan will identify and protect lands needed to meet their current and projected space requirements.

Industrial areas would be set aside primarily for industrial activities. Other supporting uses, including some retail uses, may be allowed if limited to sizes and locations intended to serve the primary industrial uses. They include land-intensive employers, such as those around the Portland International Airport, the Hillsboro Airport and some areas along Highway 212/224. Areas of high agglomerative economic potential, such as the Sunset Corridor for electronics products and the Northwest industrial sanctuary for metal products, shall be supported with transportation planning and infrastructure development designed to meet their needs. Industrial areas are expected to accommodate 10 percent of regional employment and no households. Retail uses whose market area is substantially larger than the employment area shall not be considered supporting uses.

Other employment centers would be designated as employment areas, mixing various types of employment and including some residential development as well. These employment areas would provide for about 5 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 about 20 people per acre. Employment areas would be expected to include some limited retail commercial uses primarily to serve the needs of people working or living in the immediate employment areas, not larger market areas outside the employment area. Exceptions to this general policy can be made only for certain areas, indicated in a functional plan.

The siting and development of new industrial areas would consider the proximity of housing for all income ranges provided by employment in the projected industrial center, as well as accessibility to convenient and inexpensive non-auto transportation. The continued development of existing industrial areas would include attention to these two issues as well.

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 UGB for future growth. The Growth Concept contains approximately 22,000 acres of urban reserve study areas shown on the Concept map. Less than the full study area may be needed for urban reserve area designation if the other density goals of the Growth Concept are met. More than 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 for designation of urban reserves required by the Growth Concept.

Transportation Facilities

In undertaking the Region 2040 process, the region has shown a strong commitment to developing a regional plan that is based on greater land-use efficiencies and a truly multi-modal transportation system. However, the transportation system defined in the Growth Concept analysis serves as a theoretical definition (construct) of the transportation system needed to serve the land uses in the Growth Concept (recommended alternative urban form). The modeled system reflects only one of many possible configurations that might be used to serve future needs, consistent with the policy direction called for in the Growth Concept (amendment to RUGGOs).

As such, the Growth Concept (recommended alternative) transportation map provides only general direction for development of an updated Regional Transportation Plan (RTP) and does not prescribe or limit what the RTP will ultimately include in the regional system. Instead, the RTP will build upon the broader land-use and transportation directions that are defined in the Growth Concept (recommended alternative).

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 its 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 and address the needs of those without access to automobiles.

In addition to the traditional emphasis on road and transit facilities, the development of networks for freight travel and intermodal facilities, for bicycle and pedestrian travel and the efficient use of capacity on all streets through access management and congestion management and/or pricing will be part of a successful transportation system.

While the Concept map shows only major transit facilities and corridors, all areas within the UGB have transit access. Transit service in the Growth Concept included both fixed-route and demand responsive systems. The RTP shall further define the type and extent of transit service available throughout the region.

Intermodal Facilities

The region's continued strength as a national and international distribution center is dependent upon adequate intermodal facilities and access to them. Intermodal facilities include marine terminals, railroad intermodal points, such as the Union Pacific's Albina Yard, the airports and the Union Station/inter-city bus station area. The RTP will identify these areas and their transportation requirements and will identify programs to provide adequate freight capacity.

Truck Routes

Truck routes will be identified and freight movement will be given priority in terms of roadway design and operation between areas with freight dependent uses within the region and major facilities serving areas locations outside the region.

Regional Through-Routes

These are the routes that move people and goods through and around the region, connect regional centers to each other and to the Central City, and connect the region to the statewide and interstate transportation system. 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. However, when they serve as a location for auto-oriented businesses, the primary function of these routes, to move regional and statewide traffic, can be eroded. 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 and neighbor cities, 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 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.

Some multi-modal arterials also carry significant volumes of freight. The RTP will ensure that freight mobility on these routes is adequately protected by considering freight needs when identifying multi-modal routes, and in establishing design standards intended to encourage alternative modes of passenger travel.

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 are specifically designed with curves and cul-de-sacs to discourage local through travel by any mode. The RTP should consider a standard of 8 to 20 through streets per mile, applied to both developed and developing 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 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.

In addition, neighbor cities of sufficient size should also include a transit connection to the metropolitan area to provide a full-range of transportation alternatives.

“Planned and existing light-rail lines” on the Concept map represent some locations shown on the current RTP that were selected for initial analysis. “Proposed light-rail alignments” show some appropriate new light rail locations consistent with serving the Growth Concept. “Potential High-Capacity Transit (HCT) lines” highlight locations for some concentrated form of transit, possibly including light rail. These facilities demonstrate the general direction for development of an updated RTP which will be based on further study. The Concept map transportation facilities do not prescribe or limit the existing or updated RTP.

Bicycle and Pedestrian Networks

Bicycling and walking should play an important part in the regional transportation system especially within neighborhoods and centers and for other shorter trips. They are also essential to the success of an effective transit system. In addition to the arrangement of land uses and site design, route continuity and the design of rights-of-way in a manner friendly to bicyclists and pedestrians are necessary. The RTP will establish targets that substantially increase the share of these modes.

Demand Management/Pricing

The land uses and facilities in the Growth Concept cannot, by themselves, meet the region's transportation objectives. Demand management (carpooling, parking management and pricing strategies) and system management will be necessary to achieve the transportation system operation described in the Growth Concept. Additional actions will be needed to resolve the significant remaining areas of congestion and the high VMT/capita that it causes. The RTP will identify explicit targets for these programs in various areas of the region.

Transportation

Chapter 2 Transportation

Overview

In 1992, the region's voters approved a charter for Metro that formally gave responsibility for regional land use planning to the agency, and requires adoption of a Regional Framework Plan that integrates land use, transportation and other regional planning mandates. The combined policies of this framework plan establish a new framework for planning in the region by linking land use and transportation plans. Fundamental to this plan is a transportation system that integrates goods and people movement with the surrounding land uses.

This chapter of the Regional Framework Plan presents the overall policy framework for the specific transportation goals, objectives and actions contained in the Regional Transportation Plan (RTP). It also sets a direction for future transportation planning and decision-making by the Metro Council and the implementing agencies, counties and cities.

Policy highlights of this chapter include:

- Ensuring efficient access to jobs, housing, cultural and recreational opportunities, shopping in and through the region and providing transportation facilities that support a balance of jobs and housing.
- Reducing reliance on any single mode of travel and increasing the use of alternative modes, such as transit, bicycling and walking.
- Integrating land use, automobile, bicycle, pedestrian, freight and public transportation needs in regional and local street designs.
- Providing efficient transportation systems that accommodate motor vehicles, public transportation, pedestrian transportation, bicycle transportation and freight movement.
- Reducing automobile trips per person and related parking spaces.
- Providing transportation demand management and system management strategies.
- Minimizing impact of urban travel on rural land through use of green corridors.
- Protecting water and air quality and reducing energy consumption.

Background

A number of federal, state and regional mandates form the basis for the policies contained in this chapter of the Regional Framework Plan.

Federal mandates

At the federal level, the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) emphasizes expanding public participation in the transportation planning process and increasing cooperation among the jurisdictions that own and operate the regional transportation system. These partners include the region's cities and counties, Metro, Oregon Department of Transportation (ODOT), Oregon Department of Environmental Quality (DEQ), Port of Portland, Tri-Met, Washington Regional Transportation Council (RTC), Washington Department of Transportation (Wash-DOT), Southwest Washington Air Pollution Control Authority (SWWAPCA) and other Clark County governments.

As the federally designated Metropolitan Planning Organization (MPO) for the region, Metro must coordinate metropolitan transportation planning efforts in partnership with these multiple jurisdictions and citizens to help develop statewide and regional transportation plans. These plans must forecast future growth, identify needed transportation investments to meet this growth and ensure the maintenance and efficient operation of existing transportation systems over a 20-year period. The Oregon Transportation Plan guides the transportation system statewide, and the Regional Transportation Plan (a Metro functional plan) is the transportation plan for this region.

In addition to the Federal requirements of ISTEA, Federal 1990 Clean Air Act Amendments (CAAA) establish air quality standards for key air pollutants, including carbon monoxide, ozone and particulate matter. Areas that do not meet the standards are designated in varying degrees of nonattainment, from "marginal" to "extreme." States must submit implementation plans (SIP) showing how these areas will meet the standards and maintain compliance over a ten-year period. Areas that do not meet SIP requirements may face sanctions, including potential loss of highway funds and limits on industrial expansion.

The Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA) was designated as a marginal nonattainment area for ozone and moderate nonattainment area for carbon monoxide. As a result, the Oregon SIP required the region to implement specific transportation control measures (TCMs) to reduce auto emissions in the region. These measures include projects to provide facilities for alternative modes, demand

management programs to encourage use of alternative modes and implementation of the 2040 land use framework to produce more transportation efficient land use patterns. The goal of these measures is to manage travel demand and improve traffic flow in order to reduce the number of vehicle trips made and the number of vehicle miles traveled. The SIP recognizes that land use patterns that shorten trips and increase opportunities for transit, bicycling and walking also help reduce emissions.

Currently, the status of the Portland-Vancouver AQMA is under review for attainment of federal air quality standards. The AQMA is anticipated to be found in compliance with requirements to meet and maintain federal air quality standards for carbon monoxide and ozone for a ten-year time period. However, it is likely that because of expected future growth, air quality regulations may stipulate certain measures remain in place or be enhanced in order for the region to remain in attainment as additional growth occurs. In 1996, the AQMA area exceeded the summer ozone standard twice at one monitoring location. A third exceedance over a three-year period would violate federal air quality standards and trigger the region's transportation control measures as defined in the SIP.

Additional federal requirements include the 1990 Americans with Disabilities Act (ADA) which mandates that transportation plans address equal access and opportunity for disabled people. An ADA transportation plan has been developed by Tri-Met. In addition, state and local jurisdictions must design and construct pedestrian facilities in compliance with ADA requirements.

State mandates

The Oregon Transportation Planning Rule (TPR) focuses on the link between land use and transportation and intends to ensure that planned transportation systems support land use and travel patterns that achieve the state goal of compact, highly livable urban areas. The TPR contains requirements designed to reduce reliance on the automobile and requires consideration of land-use policies when developing transportation plans. Local jurisdictions are required to revise development standards to promote public transportation, pedestrian and bicycle travel, orient new buildings toward major transit stops and design local streets that require less right-of-way width and improve pedestrian circulation. The TPR also requires that local transportation plans include policies that promote completion of local street networks. The rule also requires that local and regional transportation system plans target the following goals:

- a 10 percent reduction in vehicle miles of travel per capita during the next 20 years and 20 percent during the next 30 years
- less reliance on the automobile and a reduction in the number of people driving alone
- a 10 percent reduction in the number of parking spaces per capita during the next 20 years
- a stronger connection between land use and transportation planning

Local and regional transportation system plans must also examine possible land-use solutions to transportation problems and identify multi-modal, system management and demand management strategies to address transportation needs.

Regional Mandates

With adoption of the Metro Charter by voters in the region, Metro was directed to complete a Future Vision. The Future Vision statement that resulted from this mandate included many references as to the importance of transportation. These references include:

“Address the further diversification of our economy, the creation of family-wage jobs and the development of accessible employment centers throughout...the region in the Regional Framework Plan elements for transportation, rural lands, urban design, housing and water resources.”

“Incorporate specific expectations for a basic standard of living for all citizens in Regional Framework Plan elements concerned with urban design, housing, transportation, and parks and open space.”

“Identify and address public and personal safety issue in the Regional Framework Plan elements dealing with transportation, urban design and bi-state coordination.”

Other regional statements of existing transportation policy are included in the Regional Urban Growth Goals and Objectives (RUGGOs) and the Regional Transportation Plan (RTP). The Regional Urban Growth Goals and Objectives (RUGGOs) were adopted in 1991 in response to direction by the Oregon Legislature to develop regional land use goals and objectives. The RUGGOs establish a process for coordinating planning in the metropolitan area in an effort to preserve regional livability. The RUGGOs also provide a policy framework for guiding Metro’s regional planning program, including development of functional plans and management of the region’s urban growth boundary.

Existing RUGGOs policies related to transportation include Objective 14 (Air Quality) and Objective 19 (Transportation). Transportation policies contained in this chapter of

the Regional Framework Plan integrate these RUGGOs policies with new policies developed as part of the current Regional Transportation Plan update. The Regional Transportation Plan update is driven by requirements contained in ISTEA, ADA, CAAA, the Oregon Transportation Planning Rule and the need to support the Region 2040 Growth Concept. New RTP policies were approved by the Metro Council in July 1996 and reflect extensive public comment. These new policies will be used to define a 20-year plan of specific improvements to the regional transportation system, and will result in an updated Regional Transportation Plan that will serve as the transportation element of the Regional Framework Plan. The plan update is expected to be completed in December 1997. The analyses from this update may result in revisions to this chapter.

Analysis

Metro and its regional partners initiated the Region 2040 planning process to better evaluate how different growth management strategies could accommodate expected growth in this region and to analyze the possible consequences of such policies (see Chapter 1). In undertaking the Region 2040 process, the region has shown a strong commitment to developing a regional plan that is based on more efficient use of land and a balanced, multi-modal transportation system. The adopted 2040 Growth Concept resulted from this process and integrates transportation, land use, water and open space elements to reinforce the region's growth management goals. While the 2040 Growth Concept is primarily a land use framework, the success of the concept, in large part, hinges on regional transportation policy. The following section includes general descriptions of the 2040 Growth Concept land-use components and associated transportation elements as defined during the Region 2040 process. In general, each of the land use components will be served with a multi-modal transportation system tailored to its specific needs. The land use components are ordered according to their relative significance in the region.

The central city, regional centers, industrial areas and intermodal facilities are key design types of the 2040 Growth Concept. Implementation of the overall growth concept is largely dependent on the success of these primary components. For this reason, these components are the primary focus of transportation implementation policies and infrastructure investments defined in the 1996 Regional Transportation Plan.

Central city and regional centers

Portland's central city already forms the hub of the regional economy. Regional centers in suburban locations such as Gresham, Beaverton and Hillsboro are envisioned in the 2040 Growth Concept as complementary centers of regional economic activity. These areas have the region's highest development densities, the most diverse mix of land uses and the greatest concentration of commerce, offices and cultural amenities. They are the most accessible areas in the region by both auto and public transportation, and have very pedestrian-oriented streets.

In the 2040 Growth Concept, the central city is highly accessible by a high-quality public transportation system, multi-modal street network and a regional freeway system of through-routes. Light-rail lines radiate from the central city, connecting to each regional center. The street system within the central city is designed to encourage public transportation, bicycle and pedestrian travel, but also accommodate auto and freight movement. Of special importance are the bridges that connect the east and west sides of the central city and serve as critical links in the regional system.

Regional centers also feature a high-quality radial transit system serving their individual trade areas and connecting to other centers, as well as light-rail connections to the central city. In addition, a fully improved network of multi-modal streets tie regional centers to surrounding neighborhoods and nearby town centers, while regional through-routes will be designed to connect regional centers with one another and points outside the region. The street design within regional centers encourages public transportation, bicycle and pedestrian travel while also accommodating auto and freight movement.

Industrial areas and intermodal facilities

Industrial areas serve as "sanctuaries" for long-term industrial activity. These areas are primarily served by a network of major street connections to both the regional freeway system and intermodal facilities. Many industrial areas are also served by freight rail, and have good access to intermodal facilities. Freight intermodal facilities, including air and marine terminals, freight rail yards and common carrier truck terminals, are an area of regional concern. Access to these areas is centered on rail, the regional freeway system, public transportation, bikeways and key roadway connections. While industrial activities often benefit from roadway improvements largely aimed at auto travel, there are roadway needs unique to freight movement that are critical to the continued vitality of industrial areas and intermodal facilities.

Town centers, station communities, main streets and corridors

While more locally oriented than the primary components of the 2040 Growth Concept, town centers, station communities, main streets and corridors are significant centers of urban activity. Because of their density and pedestrian-oriented design, they play a key role in promoting public transportation, bicycling and walking as viable alternatives to the automobile as well as conveniently close services for surrounding neighborhoods. As such, these secondary components are an important part of the region's strategy for reducing per-capita automobile travel.

Station communities are located along light-rail corridors. They should feature a high-quality pedestrian and bicycle environment. These communities are designed around the transportation system to best benefit from the public infrastructure. While they include some local services and employment, they are mostly residential developments that are oriented toward the central city, regional centers and other areas that can be accessed by rail for most services and employment.

Town centers function as local activity areas that provide close access to a full range of local retail and service offerings within a few miles of most residents. While town centers will not compete with regional centers in scale or economic diversity, they will offer some specialty attractions of regional interest. Though the character of these centers varies greatly, each will function as strong business and civic communities excellent multi-modal arterial street access and high-quality public transportation with strong connections to regional centers and other major destinations. Main streets feature mixed-use, storefront style development that serve the same urban function as town centers, but are located in a linear pattern along a limited number of bus corridors. Main streets feature street designs that emphasize pedestrian, public transportation and bicycle travel.

Corridors will not be as intensively planned as station communities, but similarly emphasize a high-quality bicycle and pedestrian environment and convenient access to public transportation. Transportation improvements in corridors will focus on nodes of activity - often at major street intersections - where transit and pedestrian improvements are especially important. Corridors can include auto-oriented land uses between nodes of activity, but such uses are carefully planned to preserve the pedestrian orientation and scale of the overall corridor design.

Employment centers and neighborhoods

Some components of the 2040 Growth Concept are primarily of local significance, including employment centers and neighborhoods. Urban activities in these areas often impact the regional transportation system, but are best addressed through the local planning process.

Employment centers allow mixed commercial and industrial uses, including some residential development. These areas are primarily served by a network of arterial connections to both the regional freeway system and intermodal facilities. Some employment centers are also served by freight rail. Employment centers are often located near industrial areas, and thus may benefit from freight improvements primarily directed toward industrial areas and intermodal facilities.

In recent decades, the newest neighborhoods have become the most congested largely due to a lack of street connections. A lack of street connections discourages walking and bicycling for local trips in these areas, and forces local auto trips onto the regional multi-modal arterial network. The 2040 Growth Concept envisions master street plans in all areas to increase the number of local street connections to the regional roadway network. However, new connections must be designed to discourage through-travel on local neighborhood streets.

Urban reserves

Urban reserves, which are currently located outside the urban growth boundary (UGB), are relatively undeveloped with limited transportation facilities. Urban reserves are intended to accommodate future growth and will eventually require multi-modal access to the rest of the region. Because they may be added to the urban area during the 20-year Regional Transportation Plan (RTP) planning period, they are included in the RTP functional classification scheme. General street and public transportation planning is completed prior to urbanization, as part of the RTP process, and based on specific 2040 Growth Concept land use policies for these areas. Once urban reserves are brought within the UGB, more detailed transportation system planning at the regional and local level occurs in conjunction with detailed land use planning.

Areas outside the region's urban areas

Rural reserves are undeveloped areas located outside the UGB and have very limited transportation facilities. Roadways in these areas are intended to serve rural industry and

needs, and urban travel on these routes is accommodated with designs that are sensitive to their basic rural function. Rural reserves will be protected from urbanization for the foreseeable future through state statutes and administrative rules, county land use ordinances, intergovernmental agreements and by limiting rural access to urban through-routes whenever possible. Urban-to-urban travel is generally discouraged on most rural routes, with the exception of a limited number of designated urban connector roads identified in the RTP. All other rural roads should serve rural purposes.

Neighboring cities are separated from the main urban area by rural reserves, but are connected to regional centers within the metropolitan area by limited-access green corridor transportation routes. In addition to highway access, green corridor routes will include bicycle and public transportation service to neighboring cities. Neighboring cities will be encouraged, through intergovernmental agreements, to balance jobs and households in order to limit travel demand on these connectors. The region also has an interest in maintaining reasonable levels of through-travel on major routes that pass through neighbor cities and function as freight corridors. Growth of neighboring cities will ultimately affect through-travel and could create a need for bypass routes. Such impacts will also be addressed through coordination with county and state agencies, as well as individual neighboring cities.

The 2040 Commodity Flow Study

As part of the Region 2040 process, the region also conducted a Commodity Flow Study. The study was designed to determine how freight moves through the region, understand the linkage between the regional economy and the transportation system and assess the implications of future freight volumes on the regional transportation system. The study concluded with these key findings:

- Goods movement has historically sparked the region's economic growth. Our region's freight market can be segmented into three distinct but complementary components: goods movement that supports local consumption, goods movement that is generated by local industries and goods movement throughout the region that is tied to a successful distribution system. Each of these depends on access to an efficient transportation network.
- The existing transportation system is adequate to support current goods movement requirements, although there are specific points of congestion, particularly within rail facilities and at some highway crossings.
- Employment in the construction, manufacturing, transportation and utilities and trade sectors of the economy account for approximately one-half of the region's jobs. Traditionally well-paid, these jobs depend on the successful movement of

goods on the region's transportation system. In addition, the transportation system affects the ability of the region to maintain its competitive advantage as a warehousing and distribution center. Portland outranks similarly sized cities in its role in wholesale trade.

- Truck is the predominant mode for goods movement in the region. One out of ten vehicles on roadways in the region is a truck involved in moving freight. In 1991, 60 percent of all freight tonnage moved on trucks, and an additional portion of the rail and air traffic relied on truck for pickup and delivery.
- By the year 2040, freight volume is expected to grow by two to three times to approximately 19 million twenty-foot equivalent container units, which is faster than population growth. Of this, 80 percent is expected to be due to the region's market economy or goods that simply move through the Portland area to other destinations.
- Continued emphasis on maintaining and enhancing the transportation system is necessary to continue Portland's strong freight economy. Quick transfer between ship, rail, truck and air service is increasingly a competitive strength of any freight economy.

In conclusion, the projected growth in the flow of goods in this region is an important consideration in the region's land-use and transportation planning efforts. This significant growth points to the need to make available adequate land for expansion of intermodal facilities, manufacturing, wholesale and distribution activities and to continue maintaining and enhancing the freight transportation network. To this end, the 2040 Growth Concept identifies industrial sanctuaries for distribution and manufacturing activities as critical in terms of their significance to the regional economy. Policies contained in this element of the framework plan recognize the importance of protecting freight movement and the road, rail, air, shipping and pipeline facilities needed to facilitate this movement.

Conclusions

Assessment of federal, state and regional mandates and analysis of data from the Region 2040 process produced the following conclusions:

Transportation implications

- The transportation system must serve the urban form established in the Growth Concept.
- In addition to supporting implementation of the 2040 Growth Concept, policy implementation must give top priority to projects or programs that maintain or preserve existing transportation infrastructure and address safety-related deficiencies.
- Transportation investment should be a priority in key target areas, particularly the central city, regional centers, industrial areas, transit corridors and station areas.

- The density of the regional street network must be expanded to accommodate planned population and employment growth, particularly in areas where significant increases in density are planned, such as regional centers. Portions of the existing street network also warrant expansion to meet new demands. These new or expanded streets must be designed as multi-modal facilities, reflecting the variety of travel demands that accompany each land-use component.
- Higher-density, mixed-use locations should be tied to the highest quality transit and should include improved pedestrian environments.
- Improved transit, pedestrian and bicycle travel, parking limits and other transportation demand management actions should complement higher-density destinations if a 10 percent reduction in VMT per capita in the UGB by 2015 and a 20 percent reduction by 2025 is sought.
- Local governments should be encouraged to implement code changes that address building orientation and pedestrian access to transit, particularly in higher-density centers and corridors.
- Access to highway corridors that connect the region to neighboring towns must be limited if urban development pressure on adjacent rural lands is sought.
- Urban connector routes through rural areas outside the Metro UGB should be designated to urban standards if this type of traffic is to be accommodated. Other rural routes should be limited to serve only rural needs if urban development pressure is not sought.
- Parking limitations, pedestrian amenities and compact, more densely developed urban areas should be employed if reductions in vehicle miles traveled and increases in transit ridership are sought.
- Local street connectivity must be improved for more direct local access, if reductions in excess demand on regional routes and promotion of alternative modes is sought.
- A balance between jobs and housing within the market areas of regional centers can minimize travel needs for both shorter commutes and closer access to retail and other commercial services.
- The projected growth in the flow of goods in this region is an important consideration in the region's land-use and transportation planning efforts. This significant growth points to the need to make available adequate land for expansion of intermodal facilities, manufacturing, wholesale and distribution activities and to continue maintaining and enhancing the freight transportation network.

Air quality implications

- Metro must establish minimum and maximum parking ratios consistent with air quality maintenance plans. In areas where transit is provided or other non-auto modes are convenient, less parking should be provided while allowing accessibility and mobility for all modes, including autos.
- Regional transportation investment should maintain compliance with air quality standards. Investment should support regional transit service hours increases averaging 1.5 percent annually, completion of the west-side light rail transit facility

and completion of the light rail transit facility in the South/North corridor by the year 2007.

- If greater reduction of transportation-related pollutant emissions becomes necessary to assure maintenance of the ozone standard, federal transportation funding may increasingly be diverted to trip reduction programs and transit, bike and pedestrian capital projects. Accordingly, all major roadway expansion or reconstruction projects on arterials or major collectors should include pedestrian and bicycle improvements where such facilities do not currently exist.

Policies¹

The following section contains the policies for regional transportation. It should be noted that implementation of these policies is through the Regional Transportation Plan, a Metro functional plan that includes both recommendations and requirements for cities and counties of the region. The RTP is now being revised and as the Metro Council considers potential changes to the existing RTP, the Regional Framework Plan may be revised.

2.1 Intergovernmental coordination

2.1.1. Coordinate among the local, regional and state jurisdictions that own and operate the region's transportation system to better provide for state and regional transportation needs. These partners include the cities and counties of the region, Metro, the Oregon Department of Transportation (ODOT), the Oregon Department of Environmental Quality, the Port of Portland and Tri-Met. Metro also coordinates with RTC, C-Tran, the Washington Department of Transportation (Wash-DOT), the Southwest Washington Air Pollution Control Authority (SWWAPCA) and other Clark County Governments on bi-state issues.

¹ The following policies result from integration of the air quality and transportation objectives in the adopted Regional Urban Growth Goals and Objectives (RUGGO) and policies approved by resolution by the Metro Council in July 1996 as part of the Regional Transportation Plan (RTP) update. These policies comply with and replace the air quality and transportation objectives adopted in the RUGGOs. They also comply with the 2040 Growth Concept, the federal Intermodal Surface Transportation Efficiency Act (ISTEA), Clean Air Act Amendments (CAAA) and Americans with Disabilities Act (ADA), the Oregon Transportation Planning Rule (TPR) and the Oregon Transportation Plan (OTP). These mandates are described in the Background section of this chapter. The RTP, which will be updated in late 1997, will continue to provide specific transportation information, including project identification and funding criteria

2.2 Consistency between land use and transportation planning

2.2.1. Provide an adequate regional transportation system to support planned land uses and land uses which are consistent with the function and capacity of planned transportation systems.

2.3 Public involvement

2.3.1. Provide complete information, timely public notice, full public access to key decisions and support broad-based, early and continuing involvement of the public in all aspects of the transportation planning process that is consistent with Metro's adopted Local Public Involvement Policy for transportation planning. This includes involving those traditionally under-served by the existing system, those traditionally under-represented in the transportation planning process, the general public and local, regional and state jurisdictions that own and operate the region's transportation system in all aspects of the transportation planning process.

2.4 System priorities

In developing new transportation system infrastructure, the highest priority should be meeting the mobility needs of the central city and regional centers, and their suburban arterials when designated. Such needs, associated with ensuring access to jobs, housing, cultural and recreational opportunities 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 mitigate negative impacts on environmental quality and where and how people live, work and play. The region's system-wide policies are:

2.4.1. Implement a transportation system that serves the region's current and future travel needs and implements the 2040 Growth Concept.

2.4.2. Provide a cost-effective transportation system.

2.4.3. Protect the region's livability.

2.4.4. Protect the region's natural environment.

2.4.5. Improve the safety of the transportation system.

2.4.6. Provide for statewide, national and international connections to and from the region, consistent with the Oregon Transportation Plan.

2.5 Transportation finance

2.5.1. Implement a regional transportation system that supports the 2040 Growth Concept through the selection of complementary transportation projects and programs.

2.5.2. Emphasize the maintenance, preservation and effective use of transportation infrastructure in the selection of the RTP projects and programs.

2.5.3. Anticipate and address system deficiencies that threaten the safety of the traveling public in the implementation of the RTP.

2.5.4. Recognize financial constraints and provide public investment guidance for achieving the desired urban form.

2.6 Urban form

2.6.1. Support and maintain a compact urban form with specific strategies that address mobility and accessibility needs and use transportation investments to leverage desired land use patterns.

2.6.2. New development should be served by interconnected public streets which provide safe and convenient pedestrian, bicycle and motor vehicle access.

2.6.3. Street, bicycle and pedestrian connections should be provided to transit routes within and between new and existing residential, commercial and employment areas and other activity centers.

2.6.4. Encourage development that supports increased mobility and accessibility, particularly by transit, walking and bicycling.

2.7 Jobs/housing balance

2.7.1. Provide transportation facilities that support a balance of jobs and housing as well as the community identity of neighboring cities.

2.8 Transportation education

2.8.1. Encourage bicyclists, motorists and pedestrians to share the road safely. Expand the amount of information available about alternative modes of travel to encourage their use.

2.9 Barrier-free transportation

2.9.1. Provide transportation facilities that comply with the Americans with Disabilities Act of 1990 (ADA).

2.9.2. Identify and assess structural barriers to mobility for transportation disadvantaged populations in current and planned regional transportation system and address through a comprehensive program of transportation and other actions.

2.9.3. Continue to work with local jurisdictions to make public transportation stops and walkway approaches accessible.

2.10 Transportation balance

2.10.1. Provide a multi-modal regional transportation system that reduces reliance on any single mode of travel and increases the use of alternative modes of travel.

2.11 Street design

Regional street design policies address federal, state and regional transportation planning mandates with street design concepts intended to mix land use and transportation planning in a manner that supports individual 2040 Growth Concept land use components, reduces reliance on any single mode of travel and increases the use of alternative modes of travel. These design concepts reflect the fact that streets perform many, often conflicting functions, and the need to reconcile conflicts among travel modes. The regional street design map (see Figure 3.1) will work in tandem with the modal system maps shown at the end of this chapter. The region's street design policies are:

2.11.1. Provide regional street design concepts to guide local implementation of the 2040 Growth Concept.

2.11.2. Support local implementation of regional street design concepts in local transportation system plans (TSPs).

2.11.3. Manage the regional street system to achieve the access and mobility needs of the 2040 land use components.

2.11.4. Although focused on motor vehicle travel, the system is multi-modal, with street design criteria intended to limit the impact of motor vehicles on bicyclists, pedestrians, public transportation and pedestrian and transit-oriented districts.

2.12 Motor vehicle transportation

The motor vehicle system provides access to the central city, regional centers, industrial areas and intermodal facilities, with an emphasis on mobility between these destinations. The regional motor vehicle system is shown in Figure 3.2 at the end of this chapter. This plan recognizes the need to accommodate a variety of trip types on the regional motor vehicle system that include personal errands, commuting to work or school, commerce, freight movement and public transportation. Although focused on motor vehicle travel, the system described in this section is multi-modal, with design criteria intended to serve motor vehicle mobility needs, while reinforcing the urban form of the 2040 Growth Concept. While the motor vehicle system usually serves bicycle and pedestrian travel, the system is designed to limit impacts of motor vehicles on pedestrian and transit-oriented districts. The region's motor vehicle system policies are:

2.12.1. Provide a regional motor vehicle system of arterials and collectors that connect the central city, regional centers, industrial areas and intermodal facilities, and other regional destinations, and provide regional mobility.

2.12.2. Implement a congestion management system to identify and evaluate low cost strategies to mitigate and manage congestion in the metropolitan region.

2.13 Public transportation

The regional public transportation system is a key component in providing access to the region's most important activity centers, and for 25 years has been the centerpiece to the region's strategies for improving air quality and reducing reliance on the automobile as a mode of travel. Public transportation service is also prominent in Metro's 2040 Growth Concept, such that key elements of the concept, including regional centers, town centers, corridors, main streets and station communities, are strongly oriented toward existing and planned public transportation. The regional public transportation system map is shown in Figure 3.3 at the end of this chapter. The overarching goal of the public transportation system within the context of the 2040 Growth Concept is to provide an appropriate level of access to regional activities for everyone residing within the Urban Growth Boundary (UGB). The region's public transportation policies are:

2.13.1. Develop a public transportation system that provides regional access to 2040 Growth Concept primary land use components (central city, regional centers, industrial areas, intermodal facilities) and special regional destinations (such as major colleges or

entertainment facilities) with an appropriate level, quality and range of public transportation.

2.13.2. Develop a public transportation system that provides community access to the 2040 Growth Concept secondary land use components (station communities, town centers, main streets, corridors) and special community destinations (such as local colleges or entertainment facilities) with high quality service.

2.13.3. Develop a reliable, convenient and accessible system of secondary public transportation that provides access to the 2040 Growth Concept "other urban components" (e.g., employment areas, outer neighborhoods and inner- neighborhoods).

2.13.4. Continue to develop fixed-route service and complementary paratransit services which comply with the Americans with Disabilities Act of 1990 (ADA).

2.13.5. Continue efforts to maintain transit as the safest forms of motorized transportation in the region.

2.13.6. Expand the amount of information available about public transportation to allow more people to use the system.

2.13.7. Continue efforts to make public transportation an environmentally friendly form of motorized transportation.

2.13.8. Increase use of transit through both expanding public transportation service and addressing a broad range of requirements for making public transportation competitive with the private automobile.

2.14 Pedestrian transportation

By providing dedicated space for those on foot or using mobility devices, pedestrian facilities are recognized as an important incentive that promotes walking as a mode of travel. Walking for short distances is an attractive option for most people when safe and convenient pedestrian facilities are available. Combined with adequate sidewalks and curb ramps, amenities such as benches, curb extensions, marked street crossings, landscaping and wide planting strips make walking an attractive and convenient mode of travel. The focus of the regional pedestrian system is identifying areas of high, or potentially high, pedestrian activity in order to target infrastructure improvements that can be made with regional funds. The region's pedestrian system policies are:

2.14.1. Increase walking for short trips and improve access to the region's public transportation system through pedestrian improvements and changes in land use patterns, designs and densities.

2.14.2. Make the pedestrian environment safe, convenient, attractive and accessible for all users.

2.14.3. Provide for pedestrian access, appropriate to existing and planned land uses, street classification and public transportation, as a part of all transportation projects.

2.14.4. Encourage motorists, bicyclists and pedestrians to share the roadway safely.

2.15 Bicycle transportation

The bicycle is an important component in the region's strategy to provide a multi-modal transportation system. The regional bicycle system map is shown in Figure 3.5 at the end of this chapter. The 2040 growth concept focuses growth in the central city and regional centers, station communities, town centers and main streets. One way to meet the region's travel needs is to provide greater opportunity to use bicycles for shorter trips.

The region's bicycle system policies are:

2.15.1. Provide a continuous regional network of safe and convenient bikeways integrated with other transportation modes and local bikeway systems.

2.15.2. Increase the modal share of bicycle trips.

2.15.3. Ensure that all transportation projects include bicycle facilities using established design standards appropriate to regional land use and street classifications.

2.15.4. Encourage bicyclists and motorists to share the road safely.

2.16 Freight movement

Developing and adopting the Regional Freight Network and associated system goals acknowledges that the movement of goods and services makes a significant contribution to the region's economy and wealth, and that it contributes to our quality of life. The region's relative number of jobs in transportation and wholesale trade exceeds the national average. The regional economy has historically, and continues to be closely tied to the transportation and distribution sectors. This trend is projected to increase. Freight volume is projected (by the 2040 Commodity Flow Analysis) to grow two to three times by 2040 - a rate faster than population growth. The significant growth in freight

projected by the 2040 Commodity Flow Analysis indicates the need to make available adequate land for expansion of intermodal facilities, manufacturing, wholesale and distribution activities, and to continue maintaining and enhancing the freight transportation network. The 2040 Recommended Alternative identifies industrial sanctuaries for distribution and manufacturing activities; the RTP freight network identifies the transportation infrastructure and intermodal facilities that serve these land uses and commodities flowing through the region to national and international markets. The regional freight system map is shown in Figure 3.6 at the end of this chapter. The region's freight system policies are:

2.16.1. Provide efficient, cost-effective and safe movement of freight in and through the region.

2.16.2. Maintain and enhance the region's competitive advantage in freight distribution through efficient use of a flexible, continuous, multi-modal transportation network that offers competitive choices for freight movement.

2.16.3. Protect and enhance public and private investments in the freight network.

2.16.4. Promote the safe operation of the freight system.

2.17 Parking management

The Oregon Transportation Planning Rule requires that the *Regional Transportation Plan* include methods to reduce non-residential parking spaces per capita by 10 percent over the next 20 years (by 2015). The requirement is one aspect of the rule's overall objective to reduce per-capita vehicle miles traveled (VMT), promote alternative modes and encourage pedestrian and bicycle friendly development.

The mode of travel is directly influenced by the convenience and cost of parking. As auto parking in densely developed areas becomes less convenient and more costly, alternative modes of travel (e.g., public transportation, bicycle, walk and telecommute) become relatively more attractive. In addition, as alternative modes of travel are used more for work and non-work trips, the demand for scarce parking decreases. The reduction in demand will allow the region to develop more compactly and provide the opportunity for redevelopment of existing parking into other important and higher end uses. The region's parking management policies are:

2.17.1. Reduce the demand for parking by increasing the use of alternative modes for accessing the central city, regional centers, town centers, main streets and employment areas.

2.17.2. Reduce the number of off-street parking spaces per capita.

2.17.3. Provide regional support for implementation of the voluntary parking provisions of the Portland region's Ozone Maintenance Plan.

2.17.4. Manage and optimize the efficient use of public and commercial parking in the central city, regional centers, town centers, main streets and employment centers to support the 2040 Growth Concept and related RTP goals and objectives.

2.18 Transportation demand management

Transportation demand management (TDM) is not one action, but rather a series of actions to promote shared ride and the use of alternative modes, especially during the most congested times of the day. The term TDM encompasses the strategies, techniques and supporting actions that encourage non-single occupant vehicle travel (i.e., transit, walk, bike, carpool and telecommute), as well as measures to reduce per-capita vehicle miles traveled (VMT).

The primary benefit of managing travel demand is to minimize the need to expand the capacity of the region's transportation system (i.e., building new highways or adding lanes to existing highways) and make more efficient use of non-SOV modes (transit, walk, bike, carpool and telecommute) of travel. Managing travel demand will also help the region reduce overall per-capita vehicle travel, reduce air pollution and maximize energy conservation in a relatively low-cost manner. Regional TDM policies are also intended to complement local jurisdiction efforts to assist employers in implementing measures to meet the Department of Environmental Quality Employee Commute Options (ECO) rule and help the region achieve its 2040 Growth Concept land use accessibility goals. The region's transportation demand management policies are:

2.18.1. Enhance mobility and support the use of alternative transportation modes by improving regional accessibility to public transportation, carpooling, telecommuting, bicycling and walking options.

2.18.2. Promote policies and strategies that reduce travel by single occupant vehicles (SOV) in order to help the region achieve the 10 percent reduction in vehicle miles traveled (VMT) per capita and 10 percent reduction in parking spaces per capita as

required by the Transportation Planning Rule (TPR) over the planning period, and that improve air quality.

2.18.3. Provide incentives for employers and developers to build/locate in the 2040 Growth Concept central city, regional centers, town centers, station communities and transit corridors to promote more compact land use.

2.18.4. Continue to coordinate efforts to promote TDM at the regional and local level.

2.18.5. Implement TDM support programs to reduce the need to travel, and to make it more convenient for people to use alternative modes for all trips throughout the region.

2.18.6. Increase public knowledge and understanding about TDM as a tool to reduce congestion, reduce air pollution, implement the 2040 Growth Concept and to help the region meet the TPR VMT per capita and parking per capita reduction targets.

2.19 Transportation system management

2.19.1. Use transportation system management techniques (e.g., signal improvements, intersection channelization, access management, HOV lanes, ramp metering, incident response, programs that smooth transit operations) to optimize performance of the region's transportation systems. Mobility will be emphasized on corridor segments between high priority land use designations. Access and livability will be emphasized within such designations. Selection of appropriate TSM techniques will be according to the functional classification of corridor segments.

2.20 Right-of-way opportunities

2.20.1. Preserve existing and abandoned rights-of-way for future transportation improvements.

2.21 Adequacy of transportation facilities

2.21.1. Ensure land use patterns are consistent with the identified function, capacity and level of service of the facility.

2.22 Urban to urban travel on rural routes

2.22.1. Minimize the impact of urban travel on rural land uses. Limit access to and minimize urban development pressure on resource lands adjacent to transportation

corridors that link neighboring towns to the nearest regional center by designating urban connectors between these destinations as “green corridors.”

2.23 Recreational travel and tourism

2.23.1 Provide reasonable and convenient access to regional cultural, historic or natural area sites for passive and active recreational or tourism purposes.

2.24 Natural environment

2.24.1 Place a priority on protecting the region’s natural environment in all aspects of the transportation planning process.

2.24.2. Minimize the environmental impacts of system development, operations and maintenance.

2.24.3. Reduce negative impacts on parks, public open space, natural areas, wetlands and rural reserves arising from noise, visual impacts and physical segmentation.

2.25 Water quality

2.25.1. Place a priority on protecting the region’s water quality in all aspects of the transportation planning process.

2.26 Clean air

2.26.1. Protect and enhance air quality so that as growth occurs, human health and visibility of the Cascades and the Coast Range from within the region is maintained.

2.26.2. Encourage use of all modes of travel (e.g., transit, telecommuting, zero-emissions vehicles, ridesharing, bicycles and walking) that contribute to clean air.

2.26.3. Include strategies for planning and managing air quality in the regional airshed in the State Implementation Plan for the Portland-Vancouver air quality maintenance areas as required by the federal Clean Air Act Amendments.

2.26.4. Develop new regional strategies to comply with federal Clean Air Act Amendments requirements and provide capacity for future growth.

2.26.5. Work with the state to pursue close collaboration of the Oregon and Clark County Air Quality Management Areas.

2.27 Energy efficiency

2.27.1. Reduce the region's transportation-related energy consumption through increased use of transit, telecommuting, zero-emissions vehicles, ridesharing, bicycles and walking and through increasing efficiency of transportation network to diminish delay and corresponding fuel consumption.

Parks & Openspaces

Chapter 3 Parks, Open Spaces And Recreational Facilities

Overview

Parks, natural areas, open space, trails, greenways and associated recreational services provide important benefits to the visitors and citizens of the Portland metropolitan region including:

- Personal health benefits from leisure and fitness activities in local parks and open spaces (e.g. hiking, biking, field sports, playgrounds, swimming, picnicking, fishing, wildlife viewing). Recreational pursuits are vital to the social development of youth and the mental and emotional health of adults.
- Community benefits such as park access close to home, environmental education opportunities and community involvement in the planning and management of facilities. Parks and natural areas also provide unique landscape characteristics in the community.
- Economic benefits related to tourism and recreation industries and enhanced property values.
- Environmental benefits helping to maintain air and water resources, providing flood control and protecting fish and wildlife habitat.

Citizens throughout the region have demonstrated the importance of parks, natural areas and recreation services through their support in elections, opinion surveys, recreational activities and volunteer community service. Today, over 700 publicly-owned parks exist within and adjacent to the metropolitan region ranging from Mill End Park (18-inches in diameter) to Forest Park (4,683 acres). These facilities are managed by over 25 public park and recreation service providers. Metro currently manages approximately 6,100 acres of land at more than 40 locations.

With increasing growth in the region, the demand for park facilities and recreational services also has increased. But the supply of facilities and services has not kept pace. The ability of parks providers to maintain existing parks is increasingly strained and resources to acquire and develop new parks are becoming scarce. This is due to a variety of factors including an exclusive dedication of gas tax revenues to highway needs, significant reductions in federal appropriations for federal, state and local parks programs (e.g. Land and Water Conservation Fund), reductions in federal timber harvest

receipts to counties, and property tax reduction measures (e.g. Oregon's Measure 5 in 1990; Measure 47 in 1996).

Metro recognizes the desire of citizens to have quality natural areas and parks close to home. Metro is working with federal, state, and local governments to address and meet the park and recreation needs of the Portland metropolitan area. The Metro Charter, approved by voters of the region in 1992, authorizes Metro to acquire, develop, maintain, and operate a system of parks, open space, and recreational facilities. The Charter also designates these facilities as one of the mandatory components to be addressed in the Regional Framework Plan.

The policies and implementation of the parks, open spaces and recreation component of the Regional Framework Plan is based upon the *Metropolitan Greenspaces Master Plan*, adopted by Metro Council in 1992. The *Metropolitan Greenspaces Master Plan* describes goals and policies related to establishing an interconnected system of natural areas, open space, trails, and greenways for wildlife and people throughout the metropolitan area. The master plan relates to a number of Regional Urban Goals and Objectives (RUGGOs), particularly Objective 15 which calls for protection of natural areas, parks and fish and wildlife habitat.

This chapter of the Regional Framework Plan outlines the policies that guide Metro and local governments in providing services related to the provision of parks, open spaces, and recreational services. It includes policies intended to clarify roles and responsibilities to assure continued access to parks and natural areas and to protect significant natural resources for current and future generations. The policies reflect the importance of parks, natural areas and recreational facilities in the urban fabric of communities throughout the region, and offer measures to ensure that — as the landscape is affected by human settlement, natural resources are protected and citizens are provided appropriate recreational opportunities and facilities, close to where they live.

Background

For decades, parks have played a vital role in the quality of life in the metropolitan region. In 1903, visiting landscape architects Frederick Law Olmsted and John Charles Olmsted discussed a newly-emerging American notion of making nature urbane and, thus, naturalizing the city. In their report to the Portland Parks Board, the Olmsted's noted, "While there are many things, both small and great, which may contribute to the

beauty of a great city, unquestionably one of the greatest is a comprehensive system of parks and parkways.”

From the time of the Olmsted's report through the 1960s, the city of Portland was the primary population center and primary parks provider in the region. With continuing urban growth through the 1970s, suburban communities outside the central city established new and expanded parks and recreation programs. A primary emphasis of these programs was, and continues to be, the provision of active recreation opportunities including sports fields, swimming pools, playgrounds and associated recreation programs.

In 1974, the State of Oregon issued the Willamette River Greenway Plan outlining protection and acquisition proposals for the Willamette River from Cottage Grove to its confluence at the Columbia River. The Plan directs development away from the river, establishes a greenway setback line, requires inventories be completed and requires protection of significant fish and wildlife habitats, vegetative fringe, scenic qualities and viewpoints.

The State of Oregon requires all cities and counties to develop comprehensive plans. These comprehensive plans must address State Land Use Planning Goals including: Goal 5, Open Spaces, Scenic and Historic Areas and Natural Resources; Goal 6, Air, Water and Land Resources Quality; Goal 8, Recreational needs and Goal 15, the Willamette River Greenway. Metro, as well as the cities and counties of the state, must show that their plans are consistent with these goals.

In 1989, Metro published the *Metro Recreation Resource Study*, a work in cooperation with other local park providers in the region. The purpose of the study was to:

- identify existing public parks, natural areas and other recreational resources in the region
- describe the general issues, problems, and opportunities relating to these resources
- identify needed actions to provide adequate park facilities and services in the Portland metropolitan region

The study identified the need to increase the inventory of park facilities and services and address the need for additional natural area park facilities in the metropolitan region, in response to the growing demand for natural resource-based recreational opportunities (e.g. hiking, biking, fishing, boating, camping, wildlife watching) close to home. Publicly-owned and managed natural areas were found to be limited, primarily Forest

Park, Oxbow Park and Tryon Creek State Park. A regional, cooperative planning approach was recommended to address this issue.

In 1990, Metro Council established two advisory committees to coordinate development of a regional natural areas master plan to guide protection and management of regionally significant natural areas in the region. The Greenspaces Technical Advisory Committee is composed of parks and natural resource professionals in local jurisdictions, state and federal agencies and representatives of nonprofit advocacy groups for parks, natural areas, open spaces, trails and greenways.

A Greenspaces Policy Advisory Committee consisting of elected officials from local jurisdictions in the region, including Clark County, oversaw development of the *Metropolitan Greenspaces Master Plan*, which the Metro Council adopted in 1992. The Policy Advisory Committee was replaced by a citizen-based Regional Parks and Greenspaces Advisory Committee in 1995 to advise Metro Council, Metro Executive Officer and the Metro Regional Parks and Greenspaces Department on a variety of issues affecting regional parks and natural area facilities and services.

In 1993, Multnomah County approached Metro concerning the possible consolidation of its Parks Services Division with Metro's Greenspaces Program. The consolidation was consistent with each agency's desire to support its own mission (e.g. growth management for Metro; social services for Multnomah County) and was expected to further the regional vision embodied in the *Metropolitan Greenspaces Master Plan*. In December 1993, Metro Council approved the merger of the Multnomah County Parks Division with Metro's greenspaces program, creating the Metro Regional Parks and Greenspaces Department.

The new department began operations in January 1994. Combining Metro's planning experience with park management experience greatly enhanced Metro's ability to acquire, develop, maintain, and operate a system of parks, natural areas, and recreational facilities of regional significance. It also put Metro in a position to better support local parks providers in coordination and planning activities. The parks merger allowed Metro to better address and coordinate issues common to all local park providers. For example, Metro coordinated the identification of 90 local park acquisition and improvement projects which were included in the 1995 open space, parks, and streams bond measure.

In 1995, Metro referred a \$135.6 million bond measure to voters of the region that identified 14 regional target acquisition areas, 6 regional greenway and trail projects and

90 local natural area acquisition and development projects that supported the goals of the *Metropolitan Greenspaces Master Plan*. Voters of the Portland metropolitan region approved Measure 26-26 in May 1995. Metro's goal is to acquire about 6,000 acres within the 14 regional target acquisition areas and corridors.

The *Future Vision Report* (1995) required by the Metro Charter also identifies parks and natural areas as valuable components of a livable community. The report states that:

- "We value a life close to nature incorporated in the urban landscape."
- "We value nature for its own sake, and recognize our responsibility as stewards of the region's natural resources."
- "...this region is recognized as a unique ecosystem...which seeks to:
 - improve air and water quality, and increase biodiversity;
 - protect views of Mt. Hood, Mt. St. Helens, Mt. Rainier, Mt. Adams, Mt. Jefferson, and other Cascade and coastal peaks;
 - provide greenspaces and parks within walking distance of every household;
 - assure a close and supportive relationship among natural resources, landscape, the built environment, and the economy of the region; and
 - restore ecosystems, complemented by planning and development initiatives that preserve the fruits of those labors."

In addition, the RUGGOs state under Objective 15 that:

"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."

The policies in this chapter capture the intent of the RUGGOs, *Future Vision* and *Metropolitan Greenspaces Master Plan* related to providing an adequate and viable system of parks, natural areas, trails, greenways and recreational programs and services in the Portland metropolitan region.

Analysis

A key element of the 2040 Growth Concept for accommodating future urban growth in the region includes encouraging a compact urban design. That is, more households are expected to be accommodated by higher densities. This means smaller lots in much of the new development and where transit service is at high levels, such as in regional and town centers, mainstreets and station communities, residential development types including rowhouses and multi-family development.

New neighborhoods and communities must include adequate parks and open spaces. Land set aside for parks and open spaces must be included in planning for future urbanization inside and outside the Urban Growth Boundary. A crucial issue related to parks, natural areas and recreation in the region is how communities will work together to plan for the provision of these important public facilities and services.

Identification and Inventory of the Regional System

The development of the *Metropolitan Greenspaces Master Plan* required the systematic, scientific identification, inventory and assessment of natural area features in the metropolitan region. A consultant team was assembled by Metro in 1989 to conduct the inventory and analysis of the Portland metropolitan region to identify regionally significant natural areas and corridors for fish, wildlife and natural resource dependant recreation.

The natural areas inventory was based on aerial photography of the total study area (372,682 acres) with biological field checks of seven percent of the natural areas mapped. Periodic updates of the inventory will be necessary to assess the status of regionally significant natural areas, monitor trends and to support future planning and management efforts. Future work will be based on systematic and scientific methods.

Inventories are needed in order to accomplish the following:

- Reevaluate protection priorities established in the *Metropolitan Greenspaces Master Plan*. Some sites identified may no longer be considered regionally significant. New sites may be added to the regionally significant inventory once current and more complete data are available.
- Delineate regionally significant natural areas, research and document the critical natural resources values for which protection should be justified and supported.
- Delineate and conduct field assessments of biological corridors that interconnect regionally significant sites.
- Assure that the regional system of parks, natural areas, open spaces, trails and greenways contributes to the maximum extent, based on scientific data, to the protection of water quality, fish, wildlife and botanic diversity within the region.
- Inventory existing park facilities, recreational capacity and analysis of park service needs

Protection of the Regional System

Ecological principles are important in establishing protection priorities including:

- Maintaining biological diversity by protecting and enhancing a variety of habitats such as wetlands, riparian corridors, forests, and agricultural lands distributed throughout the metropolitan area.
- Consolidating natural areas to create or maintain relatively large contiguous acreages connected to natural habitats outside the urban environment to avoid habitat fragmentation and species isolation.
- Protecting, restoring, and recreating stream corridor vegetation by replacing riparian vegetation where it is lacking or dominated by exotic species and removing barriers, where possible, to maintain connections with adjacent upland habitats.
- Protecting or restoring naturally vegetated connections between watersheds at headwaters or other appropriate locations. •
- Planning for capital improvements to provide appropriate access and use of parks and natural areas

A variety of strategies will be used to protect and manage the regional system of parks, natural areas, trails and greenways to support fish and wildlife populations as well as provide a variety of recreational opportunities. These include:

1. Acquisition
2. Environmental education, stewardship and landowner incentives
3. Land use and environmental regulations

Acquisition

One of the most effective means of natural resource protection is public acquisition from willing sellers. The *Open Spaces Parks and Streams Bond Measure 26-26*, approved by voters in 1995 provided funds for the acquisition of open space in 14 regional areas, 6 regional greenway and trail corridors. The measure also provided funds for up to 90 local greenspace projects which support or compliment the *Metropolitan Greenspaces Master Plan*.

Since 1990, voters in Gresham, Lake Oswego, Portland, Tualatin, Tualatin Hills Park and Recreation District and North Clackamas Park and Recreation District have approved general obligation bond issues which support, in part, elements of the *Metropolitan Greenspaces Master Plan* and other outdoor recreation facilities and services needs.

More than \$6 million in federal transportation funding under the Intermodal Surface Transportation Efficiency Act of 1991 has been invested in trail projects in the region. Land acquisition can also be supported through donations of land, conservation easements and dedication of surplus land as open space.

Environmental education and incentive programs

Environmental education and incentive programs have the capacity to provide a level of protection for park and natural areas. Building an increased understanding and awareness of metropolitan natural resource values and the benefits of parks in general leads to informed management decisions and increased public participation in volunteer stewardship activities. An informed public uses parks and natural areas in ways that helps reduce the maintenance costs of these facilities. Incentive programs (e.g. grants, tax reductions, technical support) provide public agencies and private parties support in the restoration, enhancement, and management of natural areas.

Land Use and Environmental Regulations

Oregon land use policies and regulations provide limited protection of natural resources in the metropolitan region. Local governments can use the comprehensive land use planning process to establish protective zoning standards to protect natural resources within their jurisdiction, but they are often inconsistently applied. Natural resource management on a regional basis offers the opportunity for uniform standards to protect these resource values. Local planning efforts are needed to assure that an adequate supply of park land is available to meet the future demand for community and neighborhoods parks, sports fields, recreation centers and locally significant open space trails and greenways.

A combination of strategies will be required to protect and connect a regional system of parks, natural areas, trails and greenways for fish, wildlife and people. Metro will work with local governments, state and federal agencies, conservation organizations, businesses, and citizens to review, refine and further implement these protection strategies.

Management of the Regional System

Federal, state, county and local agencies have an important role in the management and operation of the metropolitan region's parks, natural areas and associated programs and services. The Metro Charter provides for Metro to serve as a regional provider of parks, natural areas, and recreational facilities. The 1994 City Club of Portland report, *Portland Metropolitan Area Parks*, cites the value of a regional parks authority. A cooperative, regional management approach can result in equitable distribution of facilities, funding equity, consistency in planning, management and operation of facilities and user benefits.

Currently, Regionally Significant Parks, Natural areas and Trails are managed by a variety of public entities with a variety of financial resources. There is little consistency in development, operation, and management standards and little or no integration regarding funding, user fees, or visitor services. Tax reform initiatives may have serious implications for local and state agencies' abilities to operate and maintain existing parks for the region's growing population. Local governments, in particular, may at some point wish to transfer management of regionally significant facilities to Metro, to address funding equity issues and allow local providers to focus on community and neighborhood parks and other facilities and programs related to active recreation.

Site specific management begins with the preparation of master/management plans. The primary purpose of a master plan is to articulate management, development and operation guidelines. Metro will prepare master/management plans for sites that Metro purchases or expects to manage. Sites which lack master/management plans will be "landbanked" and public use limited until appropriate facilities and services can be planned, developed and maintained.

Metro should provide the forum for addressing issues related to the coordination and integration of management, and of service delivery related to parks, open spaces and recreation. Metro should lead an effort to study and evaluate how park and recreation services are provided and recommend actions which will improve funding stability and equity, operational efficiency, customer service, management integration, coordination, and continuity.

Regional Trail and Greenway System

In their report to the Portland Parks Board in 1903, the Olmsted brothers recommended that a system of interconnected parks serves the public far better than a collection of isolated pieces of land. Regional trails and greenways provide the connective network necessary to link the region's parks and natural areas. It is also the critical component that provides people access to parks and natural areas, and the corridors to support movement of fish and wildlife. They connect communities with regionally-significant natural areas and also connect the metropolitan region to the Pacific Coast, Cascade Mountains and Washington state.

Since 1988, Metro has staffed a Regional Trails and Greenways Working Group composed of parks/trails/bike planners from local, regional, state and federal agencies, and nonprofit trail organizations. The working group assisted Metro in developing the

trails and greenways component of the *Greenspaces Master Plan*. Thirty-five trail and greenway corridors are identified in the master plan (see attached map, adopted by the Metro Council in 1995).

Refinement of the trails and greenways has been ongoing since the Master Plan was adopted in 1992. Citizen involvement also plays an important role in trail planning. For example, the Peninsula Crossing Trail was added to the Regional Trail System in 1993 at the request of residents of North Portland. Many of the trails and greenways segments support local comprehensive plans and/or local parks and trails master plans.

In 1996, Metro commissioned a Rails and Trails Strategic Plan which inventoried rail right-of-ways throughout the region and identified those having trail potential, should abandonment occur. Abandoned rail lines provide outstanding trail opportunities. The Springwater Trail, for example, was envisioned to link the metropolitan area with Mt. Hood National Forest. Constructed segments now link Gresham with Portland and provide 12.99 miles of constructed trail utilized by an estimated 500- 600 thousand people/year.

Public planning and transportation agencies incorporate elements of the Regional Trails Plan into state, regional, and local transportation projects and urban development projects (e.g., Mt. Hood Parkway, Sunrise Corridor, Hwy. 30 Corridor Study; Multnomah County West Hills Study).

Provision of Community and Neighborhood Parks, Open Spaces, Trails and Recreation Programs

Cities and two special districts (i.e., Tualatin Park and Recreation District; North Clackamas Park and Recreation District) in the region are responsible for community and neighborhood parks, open spaces, trails, and recreation programs. In the 1994 City Club of Portland report, *Portland Metropolitan Area Parks*, assessed and considered a vision for parks in the region. The report concluded that the size and configuration of the parks and recreation system is inadequate to meet current and future demand. In order to address this perceived inadequacy, the "completion ... of the core system" was envisioned.

In essence, a core system of parks would ensure that a "minimum level of parks and recreation facilities ... be available to all citizens regardless of income or geography in the metro area." The approach was based on assessing local community values and making adjustments to reflect "separate social goals... held by a specific community."

Not surprisingly, neighborhood and community parks were the first element of this system.

The City Club report recommended the provision of parks be coordinated with other basic services including schools, public safety, land use and transportation planning, and watershed management. Citing Portland as an example, the survey concluded that a "multi-generational community center at each middle school" should provide local communities in the region with a place of education, recreation, and congregation.

Local governments and park and recreation districts have been and will continue to be the primary providers of community and neighborhood parks, open space, trails, sports fields, recreation centers and recreation programs. These facilities and programs provide important opportunities for active and passive recreation in closest proximity to where citizens live.

Local governments should be encouraged to prepare park and recreation master plans which provide a framework for community level park and recreation facilities, trails and recreation programs. Master plans should:

- Identify parks deficient areas and include strategies for addressing these deficiencies.
- Integrate local trail systems with the regional trails system.
- Identify opportunities for cooperation and cost efficiencies between communities, schools, and quasi-public organizations such as the YMCA
- Provide for citizen involvement in the development and implementation of master plans.
- Identify funding strategies and implementation schedules...
- Be responsive to the State Comprehensive Outdoor Recreation Plan (SCORP).
- Compliment the Regional System.

Metro should identify and evaluate opportunities to assist local governments and park and recreation districts with development and implementation of master plans. Potential opportunities include:

- Provide mapping and information services through the agency's Data Resources Center to support local planning efforts.
- Provide forums for the exchange of ideas, information, strategies and development of partnerships between providers, schools, and quasi-public organizations.
- Provide funding support by incorporating local parks components in regional funding strategies and continuing the restoration and education grants program.

- Advocate for the identification and implementation of state and federal funding sources which provide financial resources to supplement local investments in parks, open spaces, trails, recreation facilities and programs.
- Ensure that the regional and local park systems are incorporated into comprehensive plans and addressed in planning for urban reserve areas.

Participation of Citizens in Planning, Stewardship, Environmental Education and Recreational Activities

“What is not understood is not valued, what is not valued will not be protected, what is not protected will be lost.” Charles Jordan, Portland Bureau of Parks and Recreation

Public understanding and participation in the planning and protection of the region's parks, natural areas, open spaces, trails, greenways and recreational facilities are the foundation of successful parks and recreation services. Meaningful citizen involvement is fundamental to an effective response to community needs, it results in more responsive management through identification of appropriate priorities, and enhances financial and volunteer support. Metro, local governments, businesses and citizens working together must build a stewardship ethic and provide meaningful opportunities for public participation to assure parks and recreational services meet the needs of the metropolitan region and ensure the protection of natural resources.

As members of the public gain a comprehensive understanding of parks and natural area needs and opportunities, they will become active partners in efforts to determine future planning choices, and conduct periodic public review of local master plans and other related plans. Citizens can provide guidance through forums, participation on advisory committees, and in various other capacities.

Goal 5

In Oregon, local governments carry out planning to protect natural areas consistent with the State Land Use Planning Program. This land use program requires local governments to conform with up to nineteen statewide planning goals. Goal 5, Open Spaces, Scenic and Historic Area and Natural Resources is one of the key goals which can result in tools for protecting urban natural areas at the local level in the metropolitan region. A study, *To Save or to Pave; Planning for the Protection of Urban Natural Areas*, by the Portland Audubon Society and 1000 Friends of Oregon (1994), analyzed and evaluated the implementation of Goal 5 in the metropolitan region in protecting urban natural resources during the last decade. Some of the important findings from the study are listed below:

- Over three-fourths of local decisions examined allowed degradation of natural and scenic resources.
- Goal 5's rules were site specific and did not protect resources on an ecosystem or landscape level.
- Local governments employed a variety of regulatory and non-regulatory techniques with no overall consistency in an area.
- Goal 5 does not require standardized inventories or methods of data collection. As a result, important areas were omitted from consideration for protection, and inventories did not contain enough information to guide local planning decisions.
- Enforcement of local Goal 5 programs is difficult, inadequate and too reliant on citizen efforts.
- Upland forests are the least protected resource, and are vulnerable to being destroyed.

Metro has addressed natural resource issues in three policy documents: 1) the Metropolitan Greenspaces Master Plan (1992), 2) the Regional Urban Growth Goals and Objectives (RUGGOs) (1995), and 3) Title 3 of the Urban Growth Management Functional Plan (1996).

The *Metropolitan Greenspaces Master Plan*, adopted in 1992, through a mapping and public process, identified 57 sites in our metropolitan area that retained significant natural biological characteristics. Seventeen of these 57 sites are in the process of been acquired through the Open Spaces Parks and Streams Bond Measure 26-26. The remaining 40 sites are in private property, and are being urbanized at the rate of 6 percent. These sites are all Goal 5 areas, and land use regulations under the Goal 5 rule will help protect these regionally significant sites.

Title 3 of the Urban Growth Management Functional Plan (Water Quality and Floodplain Management Conservation), protects streams, wetlands, floodplains and steep slopes associated with vegetated corridors along streams by limiting or mitigating the impacts of development activities. Title 3 addresses Goal 6 and 7 and does not address Goal 5, because Goal 5's rules were changing when Title 3 was being addressed. However, Title 3 (Section 5 Fish and Wildlife Conservation Area) recommends local governments to address fish and wildlife habitat, but does not mandate any protection for the at this time. Title 3 does, however, require that Metro conduct a regional assessment of regionally significant Goal 5 resources and evaluate the protection of these resources. Based on this analysis, Metro will develop a strategy and action plan to address inadequacies in regional protection of Goal 5 resources. This plan will be carried out by Metro and local jurisdictions.

Metro recognizes that addressing Goal 5 will result in protecting fish and wildlife habitat, and balancing it with other economic uses in the metropolitan area. However, Goal 5 will have to be a comprehensive process which will include, protecting fish and wildlife habitat on a landscape level, standardizing inventory of resources, determining significance of resources, and systematizing land-use regulations through out the metropolitan area. In its eighteen month analysis, Metro will propose strategies and an action plan to address the protection of Goal 5 resources in the Metro region.

Policies

Policies related to the provision of parks, open spaces, and recreational services by Metro and local governments address inventory, protection, management and use of these resources at the regional and local levels. These policies have been derived from the Greenspaces Master Plan and the RUGGOs.

3.1 Policies related to the Inventory and Identification of Regionally Significant Parks, Natural Areas, Open Spaces, Trails and Greenways.

3.1.1. Metro will inventory and identify regionally significant parks, natural areas, open spaces, trails and greenways using landscape ecology as a basis, and watersheds as primary units of analysis, so that coordinated protection and enhancement of natural functions across jurisdictional boundaries will be assured.

3.1.2. Metro will identify natural corridors that connect regionally significant parks, natural areas, open spaces, trails and greenways. River and stream corridors will provide primary linkages.

3.1.3. Metro will inventory lands outside the urban growth boundary and Metro's jurisdictional boundary and identify them as prospective components of the Regional System when these lands are determined to be of direct benefit to citizens of the region.

3.2 Policies related to the Protection of Regionally Significant Parks, Natural Areas, Open Spaces, Trails and Greenways

3.2.1 Metro will create a Regional System of Parks Natural Areas, Open Spaces, Trails, and Greenways (The Regional System) to achieve the following objectives:

- a) provide citizens opportunities for natural resource dependent recreation
- b) protect the region's biodiversity

c) contribute to the protection of air and water quality

d) provide buffers between communities

3.2.2. Metro, upon the advice of citizens, and with the assistance of local governments and state and federal resource agencies, will finance and coordinate protection of the Regional system across jurisdictional boundaries.

3.2.3. Strategies to protect the Regional System will include, but not be limited to, acquisition, education, incentives, land use and environmental regulations.

3.2.4. Lands outside the Urban Growth Boundary and Metro's jurisdiction will be included in the Regional System when these lands are determined to be of direct benefit to citizens of the region.

3.2.5. Metro shall collect and evaluate baseline data related to natural resource values of the regional system to identify trends and guide management decisions.

3.2.6. New transportation and utility projects shall seek to avoid fragmentation of components of the Regional System. If avoidance is infeasible, impacts shall be minimized and fully mitigated.

3.2.7. Metro and affected local governments will work with the State to update, reinvigorate and implement a Willamette River Greenway Plan for the metropolitan region.

3.3 Policies related to the Management of the Publicly-Owned Portion of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways

3.3.1. Metro will assume management responsibility for parts of the publicly owned portion of the Regional System.

3.3.2. Metro will assume financial responsibility related to those portions of the publicly owned system which are owned or managed by Metro.

3.3.3. Local governments shall be given an opportunity to transfer existing publicly owned components of the Regional System to Metro and to acquire components of the Regional System with local resources.

3.3.4. The publicly owned portion of the Regional System shall be managed to protect fish, wildlife, and botanic values and to provide, primarily, natural resource related recreational opportunities.

3.3.5. Metro will acquire portions of the Regional System as financial resources allow. Metro will negotiate acquisition agreements primarily with willing sellers. Powers of eminent domain will be used only in extraordinary circumstances.

3.3.6. Master/Management plans shall be developed for each component of the Regional system to balance public use with natural resource protection. Master/Management plans shall be completed prior to formal public use.

3.3.7. Metro and cooperators in the Regional System shall be responsive to recreation demands and trends identified in the State Comprehensive Outdoor Recreation Plan (SCORP).

3.4.1. Metro will identify a Regional Trails System which shall be included in the Regional Transportation Plan.

3.4.2. The Regional Trail System shall provide access to publicly owned parks, natural areas, open spaces, and greenways.

3.4.3. Metro will coordinate planning for the Regional Trail System with local governments, federal and state agencies.

3.4.4. Metro will cooperate with citizens and other trail providers to identify and secure funding for development and operation of the Regional Trails System.

3.4.5. Local governments shall integrate local and neighborhood trail systems with the Regional Trail System.

3.5 Policies related to the Provision of Community and Neighborhood Parks, Open Spaces, Trails and Recreation Programs

3.5.1. Local governments shall be responsible for the planning and provision of community and neighborhood parks, locally significant open spaces, sports fields, recreational centers, trails, and associated recreation programs.

3.5.2. Local governments shall provide a park or recreation facility within one-half mile of all residents.

3.5.3. Local governments are encouraged to be responsive to recreation demand trends identified in the State Comprehensive Outdoor Recreation Plan (SCORP).

3.5.4. Local governments are encouraged to develop, adopt and implement Master Plans for community park and trail systems and recreational programs.

3.5.5. Local governments are encouraged to secure and appropriate sufficient funds for the provision of community and neighborhood parks, trails and recreational programs.

3.6 Policies related to Participation of Citizens in Environmental Education, Planning, Stewardship Activities, and Recreational Services.

3.6.1. Metro will encourage public participation in natural and recreation resource management decisions related to the Regional System.

3.6.2. Metro will provide educational opportunities to enhance understanding, enjoyment and informed use of natural, cultural, and recreational resources.

3.6.3. Metro will provide and promote opportunities for the public to engage in stewardship activities on publicly owned natural resource lands.

3.6.4. Local governments are encouraged to provide opportunities for public involvement in the planning and delivery of recreational facilities and services.

Water Management

Chapter 4 Water

Part 1 Urban Water Supply

Overview

Clean and sufficient quantities of water are essential to the people of the region as well as their commerce, agriculture and economic viability. It is not only important, however, to have adequate supply, but that supply must be able to reach where people are living throughout the region. How water is supplied to the region can also have impacts on the natural environment, including sufficient water for fish and wildlife habitats. This highlights the important linkage between growth management planning and planning for the provision of water supply and its related infrastructure.

This section of the Regional Framework Plan sets out the policies, their background and analysis, implications, and the implementation plan and regulations concerning urban water supply and storage.

Background

Metro's involvement in regional water resource planning extends back to the 1960s and 1970s when its predecessor, the Columbia Regional Area Government (CRAG) compiled water and sewer infrastructure needs, and met federal reporting mandates. This work coincided, in part, with a rapid surge of suburban growth in Oregon dating back to the 1950s. During the decade of the 1960s, residents in the Willamette Valley began to regard higher costs for services imposed on governments and urban development patterns with concern. Combined with an outspoken and environmentally-minded governor Tom McCall, the late-1960's direction in Oregon was to protect the state from the "grasping wastrels of the land." The state established the Oregon Department of Environmental Quality (DEQ) in 1969 to administer and monitor statewide environmental standards associated with existing federal mandates.

In 1973, the Legislature passed Senate Bill 100 calling for the formation of the Land Conservation and Development Commission (LCDC) to monitor compliance of local plans with state goals. State planning goals were written to link concerns about urban development with environmental protection measures. Goal 14 established the concept of urban growth boundaries (UGB) to separate urban from rural lands. The establishment of the UGB was considered not only a tool to reduce land extensive development, but also as a way to help minimize costs of extending public services and facilities, such as water and its transmission piping.

At the national level there was a parallel course of events that lead to the of the enactment of the Clean Water Act (CWA) in 1972, and the formation of the Environmental Protection Agency (EPA) to track progress towards the goals of the CWA.

It was during the early 1970's that CRAG was designated by DEQ as the region's Areawide Water Quality Planning Agency (1974), an effort that culminated in the Metro Council's adoption of the *Regional Wastewater Management Plan* (1980) and the *Regional Stormwater Plan* (1982).

The Metro Water Resources Policy Advisory Committee (WRPAC) was formed in the early-1980s to provide technical advice to the Metro Council on the development of Metro's functional plans for areawide wastewater and stormwater management. WRPAC, whose membership consisted of technical staff representing water providers and wastewater managers from around the region, extended the scope of its purview and membership to include matters related to "multi-objective watershed management" and policies and plans related to growth management planning.

Early Plans: Defining Roles and Responsibilities

In 1989, Metro began to evaluate regional water resource needs and to clarify its role, as described in a *Water Quality Issues Report* (July 1989). The following year, the Metro Council Planning Committee approved the *Water Resources Work Plan* (1990), which emphasized stormwater management, water quality modeling and participation in other regional water initiatives.

In 1991, the region's water providers formally organized a Regional Providers Advisory Group to discuss future water supply issues. It was agreed that the region would face future supply shortfalls based on current supplies, use patterns, and growth projections.

Over the next two years, including one summer of record drought (1992), the Portland Water Bureau, in coordination with other providers, sponsored a series of Phase I studies concerning future regional water demands, potential water source options and water conservation opportunities (*Water Source Options Study, 1991*).

An evaluation of Phase I results concluded that six source options to meet population growth forecasts over a 50 year-horizon were worthy of further analysis. A Phase II scope of work was developed that focused on the development of an integrated water supply plan for the region. Twenty-seven of the region's water providers signed an intergovernmental agreement in April 1993 to fund and manage the *Regional Water Supply Planning Study*. In 1994, Metro became the 28th project participant.

More Recent Regional Policies

In assessing how the region's growth should be managed, the Metro Council adopted The Regional Growth Goals and Objectives (RUGGOs). These goals identify both water quality and water quantity issues of regional significance in Metro's growth management planning. The RUGGOs also instruct Metro to work with all relevant jurisdictions to comply with state and federal requirements for drinking water, to sustain beneficial water uses and to accommodate growth.

Another source of regional policy, the 1992 Metro Charter, was approved by the region's voters in November, 1992. The charter recognized the important linkage between planning for the region's growth and planning for water supply needs, and directed Metro, in its Regional Framework Plan, to address "... water sources and storage.."

In response to requirements of the Metro Charter, the Future Vision document was adopted by the Metro Council in 1995. It states that there should be: "...intelligent integration of urban and rural development which seeks to: improve air and water quality..."

The *Metropolitan Greenspaces Master Plan*, adopted in by the Metro Council in 1992, called for the protection and enhancement of open space and natural areas, and directly linked their "survival" with water resources planning and management (see also Chapter 4). The Master Plan identified the need to protect and enhance waterways and floodplains as a strategy to protect and manage parks and open spaces. The plan recognized the value of watershed planning and, further, used watersheds as the basis for ecological planning and protection of resources.

The Region 2040 Growth Concept, adopted by the Metro Council as an ordinance in 1995, addressed land use, transportation, open space and livability for the region. The growth concept relied on a number of key elements, including population projections and projected land use densities and employment assumptions. It also analyzed the different water supply infrastructure needs and implications associated with three growth concepts. (*Concepts for Growth*, 1994). Metro worked closely with the region's water providers to rank each growth concept and compare the concepts based on various factors related to water supply. This work is summarized in Metro's *Water Descriptive Indicators Report* (1994) which also identified the relative cost differences between the three growth concepts.

The intent was to ensure that the eventual growth concept adopted by the Metro Council took into full consideration the implications of providing drinking water to future populations. The Region 2040 project and the *Regional Water Supply Planning Study* clearly identified how growth effects water supply and the need for coordinated planning to meet future water supply demands.

The *Metro FY 1994-99 Water Resources Work Plan* builds on the successes of the 1990 Water Resources Work Plan and on the water resources policies contained in the *RUGGOs*, *Metro Charter*, *Metropolitan Greenspaces Master Plan*, and *Metro's Regional Wastewater and Stormwater Management Plans*. These policies identified the water quality and water supply issues of regional concern that Metro should address in its planning functions.

The five-year work plan proposes work elements in the subject areas of water supply and water quality. The work plan sets out to accomplish the following:

- ensure sufficient quantity of surface water and groundwater is available to the region.
- protect and enhance water quality through coordinated growth management planning emphasizing integrated watershed management, technical assistance and public education.
- adopt water resource elements in the Regional Framework Plan
- develop a watershed program, including water conservation program and public education and technical materials for the region's water providers
- recertify the annual wastewater management plan

Other Region-wide Work

As previously discussed, the scope for the *Regional Water Supply Plan* came about as a result of the Phase I *Water Source Options* studies conducted in 1991. Phase I study results pointed to the value of examining issues in a regional context, integrating available technical information and growth projections, and identifying strategies to develop water options for the future. The *Regional Water Supply Planning Study* was initiated in 1993; Metro formally joined the study in 1994. The final draft of the *Regional Water Supply Plan* was adopted by resolution by the Metro Council on November 21, 1996. This resolution also authorized Metro to join the Regional Water Providers Consortium.

The 27-member Regional Water Providers Consortium, formed at the end of 1996, was created to promote voluntary coordination of individual and collective actions of those parties implementing the *Regional Water Supply Plan*. In addition, the Consortium's general purposes include the following:

- serve as the central custodian for plan documents, including computer models
- review and recommend revisions of the Plan, as appropriate
- provide a forum for the study and discussion of water supply issues of mutual interest which could apply to statewide land use goals, comprehensive plans, regional plans or land use regulations
- establish an avenue for public participation in water supply issues

Metro is not bound by any federal or state regulatory requirements regarding water supply or drinking water quality because it is not a water provider. Though Metro does not have direct authority over water supply provision or transmission, its land use decisions have significant implications for drinking water quality, quantity and protection of current and future drinking water sources.

The tri-county region has high quality drinking water from numerous surface water and groundwater sources. Future development and expected population increases, however, will place new demands on these resources. The region's water suppliers predict regional mid-range average annual demand increases of 41 percent between 1990 and 2050. Comprehensive regional water supply planning is necessary to meet these future demands.

Serving future growth will have inherent opportunities and challenges. The more planning is coordinated, the better chance water providers will have to serve future growth.

The 1992 summer drought caused residents to realize that climatic drought cycles are a reality in this region and water conservation must be integrated into how we use water. Potential water shortages due to droughts, increased demands on water consumption due to population increases, and increasing state emphasis on instream water rights all highlight the crucial need for proactive regional planning to meet future demands.

Inappropriate land use activities also have an effect on water supply. Examples of industrial contamination of groundwater used for drinking water are found in the Portland metropolitan region. Land use planning and growth management, therefore, play a significant role in ensuring adequate future water supplies.

From the beginning of the Region 2040 program, it has been recognized that the future location of the urban growth boundary is very important to public agencies and water providers. These agencies and providers plan for water facilities that have useful lifetimes of 50 years or more and they need to know where they will be expected to provide these services.

As a result of this need for coordinated planning, there has been close coordination between the Region 2040 program and the Regional Water Supply Planning Study. The Region 2040 and concepts for growth studies relied on the region's water providers to provide technical expertise and best professional judgment in evaluating the associated implications and costs.

Now that Metro has adopted the *1996 Regional Water Supply Plan* and will be participating in the Regional Water Providers Consortium, there are several tasks on which WRPAC must make recommendations and, ultimately, the Metro Council may consider taking action. These could include:

- identify those portions, if any, of the 1996 Regional Water Supply Plan it will adopt as requirements.
- develop specific regulations and/or code language to enforce its water supply and storage policies.
- identify what activities Metro will carry out to implement the *Regional Water Supply Plan*.
- determine the relationship between the implementation of the *Regional Water Supply Plan* and achievement of goals in this chapter.

While Metro has adopted the *Regional Water Supply Plan* and the Metro Council has stated that this plan will be the basis for developing future Metro regulations and code, there are currently no Metro regulations regarding water supply and storage.

Accordingly as the Regional Water Supply Plan (RWSP) and the Regional Water Providers Consortium work toward implementation the following actions will be needed ensure coordination between the Framework Plan and the RWSP.

- identify the future resource needs of the region for municipal and industrial water supply
- identify the transmission and storage needs and capabilities for water supply to accommodate future growth
- identify water conservation technologies, practices and incentives for demand management as part of the regional water supply planning activities.
- adopt Metro requirements for water supply and storage based on the results of the RWSP that provide for the development of new sources, efficient transfer and storage of water, including water conservation strategies, which allow for the efficient and economical use of water to meet future growth.

Additionally Metro should:

- determine how the *Regional Water Supply Plan* will be updated in relation to the Regional Framework Plan chapter dealing with water supply and storage.
- determine how the activities of the *Regional Water Supply Plan* will be monitored for compliance with Regional Framework Plan water supply element.
- determine how Metro will monitor the implementation of the 2040 growth concept for implications to water supply issues (e.g., ensuring that future land use practices do not contaminate groundwater or degrade run-of- river sources of drinking water).

Policy

4.1 General Policy Direction

The Metro Council has communicated with the region's water providers that its main interests in water supply planning and implementation focus on water conservation and the link between land use and water supply. Based on this, future Metro policies will primarily concentrate on:

- promoting and achieving regional water conservation and demand management goals as
- defined in the *Regional Water Supply Plan*;
- promoting the coordination between regional growth management programs and water supply planning;
- promoting the coordination between land use planning and achieving the goals of the *Regional Water Supply Plan*; and

- setting benchmarks and evaluating achievement of the targets and goals established in the *Regional Water Supply Plan* in coordination with the region's water providers.

4.2 Process

The regional planning process shall be used to coordinate the development of a regional strategy and plan to meet future needs for water supply to accommodate growth.

A regional strategy and plan for the Regional Framework Plan element linking demand management, water supply sources and storage shall be developed to address future growth in cooperation with the region's water providers.

The regional strategy and plan element shall be based upon the adopted *1996 Regional Water Supply Plan*, which contain integrated regional strategies for demand management, new water sources and storage/transmission linkages. Metro shall evaluate its future role in encouraging conservation on a regional basis to promote the efficient use of water resources and develop any necessary regional plans/programs to address Metro's future role in coordination with the region's water providers.

Specific policy directions include the following;

4.3 Efficient Use of Water

Maximize the efficient use of water resources, taking in to account current and emerging conservation opportunities, availability of supplies, practicality, and relative cost-effectiveness of the options.

Make the best use of available supplies before developing new ones.

4.4 Water Supply Shortages

Minimize the frequency, magnitude, and duration of water shortages through a variety of methods including development and operation of efficient water supply systems, watershed protection and water conservation.

Ensure that the frequency, duration and magnitude of shortages can be managed.

Ensure that decision makers retain the flexibility to select appropriate risk levels for peak event water shortages given applicable future conditions, constraints, and community values.

4.5 Impacts of Catastrophic Events

Minimize the magnitude, frequency, and duration of service interruptions due to natural or human-caused catastrophes, such as earthquakes, landslides, volcanic eruptions, floods, spills, fires, sabotages.

Maximize the ability to deal with aesthetic factors, such as taste, color, hardness and odor.

4.6 Water Quality

Meet or surpass all current federal and state water quality standards for finished water.

Utilize sources with the highest raw water quality.

Maximize the ability to protect water quality in the future, including support for and participation in watershed-protection and pollution-prevention based approaches.

Maximize cooperative partnerships to co-sponsor projects and programs that provide mutual and multiple benefits.

4.7 Economic Costs and Cost Equity

Minimize the economic impact of capital and operating costs of new water resources on customers.

Ensure the ability to allocate capital and operating costs (e.g., rate impacts) for new water supply, related infrastructure, and conservation water savings, among existing customers, future customers, and other customer groups, proportional to benefits derived by the respective customer group(s).

Foster protection of environmental values through water source protection and enhancement efforts, and conservation.

4.8 Environmental Stewardship

Avoid, reduce and/or mitigate the impact of water resource development on the natural and human environments.

4.9 Flexibility to Deal with Future Uncertainty

Maximize the ability to anticipate and respond to unforeseen future events and changes in forecasted trends.

4.10 Growth and Land Use Planning

Be consistent with Metro's regional growth strategy and local land-use plans.

Facilitate and promote effective Regional Water Supply Plan implementation through local and regional land use planning and growth management programs.

Ensure that the plan includes flexible strategies for meeting both sub-regional and regional water demands in the near-term and beyond.

Part 2 Watershed Management and Water Quality

Overview

Watershed management and clean water are essential as habitat for fish and wildlife. They are also keys to a region's livability and future growth. The interconnected web of rivers and streams, which have played such an important role in the region's history and economic success, are also important to the commerce, agriculture and economic vitality of the region.

Tremendous advances have been made in the last 25 years to improve regional water quality and protect natural resources and open space. Future growth and development, however, will place increasing demands on the region's natural resources and effect water quality. Metro recognizes this inherent conflict and strives to implement policies which protect natural resources and water quality while the region grows. This conflict, however, will need to be continually monitored and new challenges met.

Watershed management is a planning tool which recognizes the dynamic connectivity between different components of a watershed. It identifies land use and management activities which protect the functions of natural systems while achieving desired land use patterns.

Metro recognizes that citizens are concerned about protecting resources and maintaining open space to enhance the region's livability. It acknowledges the importance of

different components of a watershed and recommends that these lands be removed from the inventory of urban land available for development and that some are acquired for purchase as parks and open space. Finally, it recommends development of regulations to protect these critical natural resources.

Background

Federal Mandates

The Clean Water Act (1972) was established amid a growing tide of environmentalism that swept over the United States concerning the extent of water pollution in our rivers, lakes and oceans and the public's demand that these waters be cleaned up and protected. The goal of the Clean Water Act (CWA) was to ensure clean water for beneficial uses, such as drinking, swimming, fishing and to protect fish and wildlife.

This federally-mandated law created a system regulating direct and indirect discharges of pollutants in the country's waters (the National Pollutant Discharge Elimination System, or NPDES) that heralded a fundamental shift in approach to dealing with water quality issues. The act introduced two types of regulatory controls: water quality-based and technology-based effluent standards. It also introduced areawide water quality planning and recognized the link between land use and water quality.

Under provisions of the act, the Environmental Protection Agency was formed to administer the federal program. The Department of Environmental Quality (DEQ) took on the role of the state agency responsible for protecting water quality in Oregon.

The basis for DEQ's monitoring of Oregon's water quality program is the preparation of a routine water quality report describing and documenting monitoring and sampling programs at established river and estuary stations. These reports, developed by DEQ, are submitted to the EPA every two years, as required in Section 305(b) of the Clean Water Act. In this fashion, EPA has been able to compile a national summary of water quality conditions for the Congress in order to track progress on the goals of the CWA.

State Requirements

The DEQ, under guidance from the state Environmental Quality Commission, is the agency responsible for administering environmental laws in Oregon. The water quality program managed by DEQ is based on the protection of recognized "beneficial uses."

such as water supply, fisheries, aquatic life and wildlife, recreation, and navigation. Water quality criteria, designed to protect these "beneficial uses," provide the basis for DEQ's evaluation of the status of water quality.

The Oregon Legislature declared the following to be beneficial uses for the waters of Oregon: public water supplies, propagation of wildlife, fish and aquatic life, and domestic, agricultural, industrial, municipal, recreational, and other legitimate beneficial uses of such waters.

The Clean Water Act, Section 303(d) requires each state to identify those waters for which existing required pollution controls are not stringent enough to achieve that state's water quality standards. As a result of this requirement, in 1996 DEQ published its 303(d) list of Water Quality Limited Waterbodies which includes many stream segments in the metropolitan region.

Another set of state requirements come from the Oregon Statewide Planning Goals, adopted by the Legislature in 1969 through the passage Senate Bill 100 in 1974, address water quality and human health and safety in the context of land use planning. Goal 5 addresses open spaces, scenic and historic areas, and natural resources, Goal 6 pertains to air, water and land use resources and Goal 7 to Areas subject to natural disasters and hazards.

Goal 5 is intended to protect natural resources to "...promote a healthy environment and natural landscape that contributes to Oregon's livability." Comprehensive plans of cities and counties are to demonstrate consistency with this goal as are such Metro policies as its regional goals and objectives and this Regional Framework Plan.

Goal 6 objective is "to maintain and improve the quality of the air, water and land resources of the state." The goal states that local comprehensive land use plans should provide for the maintenance and improvement of air, land and water resources, including the carrying capacity of such resources of the planning area. The goal also states that, with regard to river basins, pollutant discharges should (1) not exceed the carrying capacity of such resources, consider long range needs; (2) degrade such resources; or (3) threaten the availability of such resources.

The objective of Goal 7 is "to protect life and property from natural disasters and hazards." This goal strives to ensure that development will not be located in areas known to be prone to natural disasters and hazards without appropriate safeguards. Areas that are known to result in death or to endanger development include such things as stream

flooding, groundwater contamination, erosion and deposition, landslides, earthquakes and weak foundation soils. Goals 6 and 7 are closely linked through the connection between the carrying capacity of land and water resources, and natural disasters and hazards associated with exceeding the carrying capacity of such resources.

In addition, with the enabling legislation that created Metro in the late 1970's, the state statutes were amended to include a chapter on metropolitan service districts. These statutes provide the authority for Metro to:

“Define and apply a planning procedure which identifies and designated areas and activities having significant impact upon the orderly and responsible development of the metropolitan area, including, but not limited to, impact on:...water quality...”

Further, it states that Metro may “Prepare and adopt functional plans for those areas designated under subsection (1) of this section to control metropolitan areas impact on air and water quality....”

Regional policies

Metro's involvement in regional water resource planning dates back to the 1970s when CRAG compiled reports documenting water and sewer infrastructure needs. These efforts culminated in the Metro Council adoption of the *Regional Wastewater Management Plan* (1980), which provides for regional coordination and staging for construction of wastewater treatment facilities, and the *Regional Stormwater Management Plan* (1982), which identifies eight major watersheds in the region and policies to reduce soil erosion and protect streams from degradation.

In 1989, Metro published its *Water Quality Issues Report*, followed by an *Areawide Water Quality Report* (1992) which identified the following water quality issues of regional concern: stormwater management, water quality- limited streams, wetlands and groundwater. The 1992 report also considered Metro's role in addressing the region's water quality problems, and suggested that Metro take on the following responsibilities: land use planning, watershed planning and technical assistance to local governments in addressing regional water quality issues.

The Regional Growth Goals and Objectives (RUGGOs), adopted by the Metro Council in 1991, and most recently revised in 1995 and the Metro Charter, adopted in 1992, identified the specific components Metro must address. In addition to water source and storage planning, Metro has “planning responsibilities mandated by state law” and “other growth management and land use planning matters which the Council... determines are of metropolitan concern and will benefit from regional planning.”

In response to the charter mandate, a Future Vision was completed. This document states in part:

“Our place sits at the confluence of great rivers – the Columbia...Willamette and its tributaries...” To achieve this vision:

...Manage watersheds to protect, restore and maintain the integrity of streams, wetlands and floodplains, and their multiple biological, physical and social values.”

In addition, as part of implementation of the Growth Concept, Metro is developing plans in relation to floodplains, stream corridors, wetlands and steep slopes (see appendices) in an effort to protect the function and values of these resources, protect human health and safety, and maintain or enhance the quality of life in the region.

Analysis

Water Quality

Water quality has declined throughout the Portland metropolitan region as development has occurred. Over 213 miles of streams and rivers within the Metro boundary have been cited by the State as not meeting current water quality standards. Pollutants include dioxin, sediment, or fecal coliform and such conditions as lack of dissolved oxygen or high temperatures which greatly reduce its ability to support fish and wildlife. The State has indicated that more miles of streams and rivers within the Metro boundary also may not meet State standards, but insufficient monitoring equipment is available to confirm this.

Degraded water quality has reduced the beneficial uses of the region's streams, rivers and wetlands. Uses that depend on clean surface waters include domestic, fish life, industrial, irrigation, mining, municipal, pollution abatement, power development, recreation, stockwater and wildlife uses. Clean water is essential to the quality of life in the region and the protection and enhancement of this resource is essential to achieving Metro's regional goals. As noted in a recent paper, “As long as the region is able to provide a quality of life that many people find attractive, it should continue to prosper”. (*Economic Well-Being and Environmental Protection in the Pacific Northwest*, 1995, T.M. Power)

Riparian and Wetland Areas

The natural areas along rivers and streams as well as wetlands and the actual bodies of water provide fish and wildlife habitat. That is, space for spawning, nesting and rearing; feeding; migrating and other life cycle needs of the region's fauna is provided by these areas. Protection and management of these resource areas will ensure that habitat is available for current and future fish and wildlife populations which may depend on these areas for some or all stages in their life cycles. For humankind, these areas provide a place for active recreation and scenic views and vistas which can help maintain a region's quality of life even as the region grows.

These areas can be protected by avoiding, limiting and managing development which adversely impact fish and wildlife habitat. These actions need not reduce the development potential of a property, although, in some circumstances, public acquisition or transfer of development rights may be the only equitable solution to properties wholly within such areas. A project alternatives analysis would be an effective tool under specific circumstances. In addition, establishing performance standards and promoting coordination by Metro of regional urban watersheds would help to address the issue.

Impacts of urbanization on watersheds and biodiversity

Urban runoff, or "stormwater," has garnered concern focused on flooding and its potential threat to property and human life in rapidly developing areas of the region. More recently, however, concern about stormwater has focused on affects to the water quality of receiving streams. Based on national water quality studies in urban areas, it is clear that past efforts to improve water quality problems have not achieved set goals. Nonpoint sources of pollution are the principal problem behind the failure of rivers and other water bodies to support their designated uses. Consequently, control of nonpoint pollution is a new national focus as it becomes increasingly clear that water quality will not improve if nonpoint sources remain uncontrolled. For example, analysis of the literature (King County Surface Water Report, Johnson, 1992) shows that the wider the riparian buffer, the more impacts that can be addressed. The narrowest buffer widths can control nutrients, water temperature and stormwater runoff, while much wider buffers are needed to control for fecal coliform (primarily from nonperforming septic tanks in urban areas or livestock in rural areas) and sediment control (from soil erosion). The widest buffers are needed if wildlife habitat is to be maintained. In addition, urban development design can greatly impact the amount, if not quality of stormwater. In an analysis of potential strategies in the Olympia, Washington area, reduction of

commercial parking was the most effective strategy assessed followed by reduction of commercial, industrial and multifamily roof areas; followed by reductions in public street widths.

Within this region, discharges from combined sewer overflows (CSOs) and storm sewers are also a major public health concern. As with numerous cities across the country, the City of Portland violates standards due to CSO discharges into rivers at times of high stormwater runoff. Extensive reconstruction of the system is now under way. In addition, many storm sewers receive illicit discharges. These range from individuals dumping used motor oil into storm drains, to spills from transportation accidents, to improper commercial disposal of large amounts of unwanted liquid materials. Control of these discharges will greatly reduce stormwater pollution and improve water quality. Public education, source reduction and monitoring are essential to successful abatement or prevention of pollution.

Watershed-based management and planning

Biodiversity is also impacted by urbanization. Habitat is lost or becomes so fragmented that species survival and mobility is threatened. Wildlife movement corridors have been designed as a result of the *Metropolitan Greenspaces Master Plan* throughout the region to facilitate movement of animals and to connect isolated parks.

The impacts of urbanization on watersheds and biodiversity has been researched and documented within the metropolitan region. Our local streams, tributaries of the Willamette, Columbia, Clackamas, Sandy and Tualatin Rivers, have suffered from the region's dramatic growth. The Columbia Slough and the Tualatin River have been designated water-quality limited by DEQ. Increasing urbanization and poor land use practices threaten the water quality of surface and groundwater in the metropolitan area. Water quality has diminished, groundwater has become contaminated, water supplies are threatened, water recreation is restricted in certain areas during rain events, and fish and wildlife habitat has been degraded.

Watershed analyses are being carried out in selected locations in the Portland metropolitan region. Though these analyses are primarily used by water resource managers, the goal is that they would also guide land use and transportation planning to foster a more comprehensive and integrated approach to land use planning.

Clearly, a regional comprehensive, integrated and multi-disciplinary watershed-based approach is needed to address these complex and far-reaching impacts. This will require

a “big picture” perspective at the landscape scale where protection, restoration, enhancement, planning and implementation of urban projects must take natural resources and biodiversity into consideration.

The Growth Concept (see chapter 2) places strong emphasis on the protection and management of natural resources within the urban growth boundary and surrounding the metropolitan region. It acknowledges public concern and appreciation for environmental quality, open space and the scenic beauty provided by the region’s natural resources. The Growth Concept identifies key natural features within the landscape for protection as greenspaces. These areas may be used as parks, open spaces, protected areas (such as wetlands and floodplains), or low-density residential development. Many of these areas have been set aside as park areas or may be acquired by Metro or local jurisdictions through implementation of the *Metropolitan Greenspaces Master Plan*. The Growth Concept identifies three strategies for their protection: 1) remove these lands from the inventory of urban land available for development; 2) these natural areas will receive high priority for purchase as parks and open space; and finally, 3) regulations could be developed to protect these critical natural areas that would not conflict with housing and economic goals. Transfer of development rights is one strategy or “tool” available to local governments to achieve this goal. Other areas will be protected through local zoning changes as a result of implementation of the Growth Concept (see appendix 1a).

The Metro Council has adopted regional stream protection and floodplain management performance standards. (see Appendix 1a). This includes a model ordinance and maps of the protection areas within the region. Policies for implementation and regulation of regional watershed planning and regional Goal 5 planning has yet to be developed (see Appendix 1f).

In addition, Metro must develop, test and monitor innovative ways to manage land use and protect receiving streams within the context of the Growth Concept. There must be encouragement to implement and monitor projects that use best management practices, innovate urban site design and landscaping to eliminate, reduce and manage nonpoint source pollution, manage stormwater, and prevent stream and floodplain degradation within the context of the Growth Concept land use densities. There is a need for documentation and dissemination of information about best management practices and nonpoint source pollution control.

Water quality protection and management can be achieved by managing how and where development and land use activities occur within the region. There are several ways in

which this can be achieved. First, riparian areas along the region's rivers and streams can be protected from development by establishing riparian protection zones. Development and land use activities can be prohibited, limited or managed within these zones to protect riparian functions and values. Second, soil disturbing activities and soil erosion can be eliminated, managed or minimized in order to reduce sediment entering receiving streams. This can be achieved through the identification, use and enforcement of specific best management practices when development occurs. Third, vegetation within this zone can be maintained and protected and where removal is unavoidable, vegetation can be re-established in a timely manner to maintain the functions and values of the riparian corridor in order to protect water quality

Finally, partnerships can be encouraged between jurisdictions, developers and "friends" groups to test innovative water pollution control techniques.

Federal and State implications

There are several federal and state initiatives that will influence how Metro and local jurisdictions plan and manage water resources and watersheds within our region. At the federal level there is the potential listing of fish species through the Endangered Species Act which will potentially affect activities on selected rivers and streams within the Metro region. For example, the steelhead trout is currently nominated for listing on the Clackamas and Sandy rivers within our region. A decision on any potential federal action is expected in mid-1997.

Additional federal implications for our region include revisions and reauthorization of the Clean Water Act and any expansion of the National Pollutant Discharge Elimination System (NPDES) program to include smaller cities in the region. Changes to federally-mandated programs will have a ripple effect on state water quality standards and regional water resources policies and planning. Any revisions to or expansion of such programs will require coordination by regional partners to respond accordingly.

Other Outstanding Issues

There are other issues that will need to be addressed in the future, including:

- impervious surface standards to minimize the impact of stormwater run-off in watersheds
- regional watershed management with particular emphasis on the linkage between riparian areas and upland areas

- a plan to create a regional fish and wildlife conservation area management and implementation strategy

Critical technical work that remains includes:

- identification of the future resource needs for designated beneficial uses of water resources that recognizes the multiple values of rural and urban watersheds.
- monitoring of regional water quality and quantity trends vis-à-vis beneficial use standards adopted by federal, state, regional and local governments for specific water resources important to the region, and use the results to change water planning activities to accomplish the watershed management and regional water quality objectives.
- assessment of integration methods for urban and rural watershed management in coordination with local water quality agencies.
- evaluation of the cost-effectiveness of alternative water resource management practices, including conservation.

Policies

These policies strive to address the inherent conflict between the function of natural systems and the effects of growth and development in the region. In order to meet the challenge of formulating policy in coordination with local jurisdictions and citizens, it is essential to acknowledge the dynamic process whereby such policies will continue to be developed and refined.

4.11 Overall Watershed Management

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.

Metro will develop a long-term regional strategy for comprehensive water resource management, created in partnership with the jurisdictions and agencies charged with planning and managing groundwater resources and aquatic habitats. The regional strategy shall meet state and federal water quality standards and complement, but not duplicate, local integrated watershed plans. It shall:

- manage watersheds to protect, restore and ensure to the maximum extent practicable the integrity of streams, wetlands and floodplains, and their multiple biological, physical and social values;
- comply with state and federal water quality requirements;
- protect designated beneficial water uses;

- implement multi-objective management of the region's watershed to the maximum extent practicable; and
- require the use of techniques relying on natural processes to address flood control, stormwater management, abnormally high winter and low summer stream flows and nonpoint pollution reduction.

4.12 Water Quality Goals

Metro should protect and enhance the water quality of the region by:

- establishing vegetative corridors along streams
- encouraging urban development which minimize soil erosion
- implementing best management practices (BMPs)
- maintain vegetation buffers along riparian areas.

4.13 Urban Planning and Natural Systems

Urban planning within the region should:

- promote the incorporation of natural watershed systems into future planning and design processes and balance their contributions to environmental improvement with recreational and other uses, and
- address the interrelatedness of greenspace protection, land use, transportation and water resources management issues.

4.14 Water quality protection

The water quality of the region should be protected and restored by:

- implementing watershed wide planning
- implementing erosion control practices
- promoting the protection of natural areas along waterways and encourage continuous improvement of water quantity and quality through liaison with agencies that influence changes along streams and rivers in the metropolitan area.

4.15 Fish and Wildlife Habitat Conservation Area

Metro should establish standards to conserve, protect, and enhance fish and wildlife habitat within the fish and wildlife habitat conservation areas identified on the water quality and flood management area map by determining performance standards and promoting coordination by Metro of regional urban water sheds.

Natural Hazards

Chapter 5 Regional Natural Hazards

Overview

Natural hazards provide a “reality check” to growth in any region, a yardstick against which we can ask, “Has the region’s future been built on solid ground?”

In the past few years, nature has been unkind to many local communities. Two examples include the Scott Mills earthquake in 1993, and the 1996 floods. For the three-county area, the cost of flooding and landslides from the February, 1996 event has been estimated at almost \$60 million – some 200 households were within the area of inundation. Figure 10 depicts the frequency of flooding in the region. Reminders of the power that natural hazards can unleash on communities include distant more powerful events, such as the Loma Prieta (1989) and Northridge (1994) earthquakes in California; and the widespread Midwest floods in 1993. We know that major disaster can strike this region.

Flood Date	Height of Willamette at Portland	Height of Columbia at Vancouver
February 1996	30.2 ft.	28.8 ft.
December 1977	17.6 ft.	Not available
January 1974	25.7 ft.	25.0 ft.
December 1964	29.8 ft.	29.5 ft.
June 1956	26.4 ft.	26.8 ft.
May 1951	Not available	21.5 ft.
June 1950	Not available	25.1 ft.
June 1948	31.6 ft.	32.8 ft.
January 1943	21.8 ft.	Not available
June 1894	35.1 ft.	36.0 ft.

Figure 10 Columbia and Willamette River Flooding

² River heights are measured by National Geodetic Vertical Datum

Hazard mitigation planning, part of a new comprehensive approach to emergency management, can be instrumental in reducing the region's vulnerability to disasters. Hazard mitigation requires a partnership between emergency managers who are experts in emergency response needs, and experts in other professions such as land use planning, engineering and economics.

Growth expected to occur as estimated in Metro population growth forecasts will require Metro, local governments and private partners to balance numerous factors. Failure to address natural hazard management issues in the community planning and development stages can lead to amplification of future losses.

This chapter of the Regional Framework Plan outlines the background, analysis and policies concerning natural hazard mitigation planning. It addresses known regional natural hazards, and offers plans for a comprehensive planning that will help minimize the risks associated with such hazards to communities.

Background

In the past decade, local, state and federal agencies have launched initiatives to improve our knowledge of natural hazards. Understanding natural hazards and the risks they create is the starting point for the long and costly process of improving the safety of communities in relation to natural disasters. Only recently has the concept of hazard mitigation become the cornerstone for developing strategies to reduce the billions of dollars spent on response and recovery operations following natural disasters.

National Mitigation Planning

The Federal Emergency Management Agency (FEMA) coordinates all federal resources in support of state and local government activities in all phases of the emergency management process: emergency preparedness, mitigation, response and recovery. Congress stated its intention in the Robert T. Stafford Disaster Relief and Emergency Assistance Act to "...provide an orderly and continuing means of assistance...to local governments in carrying out their responsibilities by...encouraging hazard mitigation measures to reduce losses from disasters, including development of land use and construction regulations."

FEMA adopted a national strategy to carry out the intent of Congress to reduce the cost of natural hazards through hazard mitigation programs.

State Mitigation Planning

State land use planning goals were adopted in 1969 by the Oregon Legislature requiring counties and cities to prepare comprehensive land use plans. In 1973, Senate Bill 100 established the Land Conservation and Development Commission to monitor compliance of local plans with state goals which, through passage of the bill, were rewritten to link concerns about urban sprawl with environmental protection measures. Goal 7, Areas Subject to Natural Disaster and Hazards, mandated that developments should not be planned in locations that could result in loss of life. Some of those factors identified in Goal 7 that could contribute to loss of life include "natural disaster and hazards."

Local governments are required, in city and county comprehensive plans, to respond to state land use planning goals and, specifically, to identify and mitigate known hazards. The Metro Regional Framework Plan, as well, must also comply with state goals.

Some state agencies have expanded their purview to include mitigation planning, response and recovery strategies. Examples include the Oregon Department of Geology and Mineral Industries, providing earthquake information and the Office of Emergency Management, a division of the Oregon State Police which organized the Governor's Mitigation Policy Task Force, in response to the 1996 floods.

Regional Mitigation Planning

The Metro Charter, adopted in 1992 by a popular vote of the citizens of the region, authorized Metro to focus on guiding the region in how and where it will grow. The charter also authorized Metro to exercise authority related to the "Metropolitan aspects of natural disaster planning and response coordination" function. (Section 6, part 3). Although the Charter did not include natural disaster planning as one of the required elements of the Regional Framework Plan, recently, both the Metro Council and the Metro Policy Advisory Committee directed that natural disaster planning should become a part of the plan.

In response to another portion of the Metro Charter, a Future Vision statement was created and adopted by the Metro Council in 1995. This document states the importance of safety and that:

"...personal safety within communities and throughout the region is commonly expected as well as a shared responsibility involving citizens and all government agencies. Our definition of personal safety extends from the elimination of prejudice to the physical protection of life and

property from criminal harm, to mitigation and preparation for and response to natural disasters.”

Metro's Growth Management Services department has played a pivotal role in initiating coordination of regional growth management and natural disaster planning responsibilities.

The Department's Data Resource Center (DRC) has collected and maintained demographic and geographic information, including databases for emergency 9-1-1 purposes to mapping flood hazard data that can assist in the mitigation process, and is an essential component of the urban growth process. Through its centralized data base server, the Regional Land Information System (RLIS), can spatially depict a variety of data for a geographical area, including land use records, zoning codes, urban development patterns and natural resource information. RLIS has become a tool for planning programs, including natural hazards mitigation.

Since 1992, Metro and the Oregon Department of Geology and Mineral Industries (DOGAMI) have worked to produce earthquake hazard maps showing areas of the region where the geology is more likely to cause damage in an earthquake. As part of the project, Metro continues to evaluate buildings for seismic risk, identify vital systems and key facilities. With hazards and risks identified, Metro's geographic information system then can be used to assess the region's vulnerability to earthquake hazards. The earthquake hazard mapping will be concluded in early 1997.

As the seismic hazard maps produced by Metro and DOGAMI became available, a gathering of emergency management professionals from throughout the region began informal review sessions. More recently, the membership of the once "informal" gathering (including Metro), signed an intergovernmental agreement to form the Regional Emergency Management Group to develop a work plan for emergency management planning activities related to regional disaster issues.

As Metro worked to develop plans for how the region will grow, it became obvious that the region's ability to mitigate and respond to natural hazards needed to be considered. In response to this need, Metro's natural hazards mitigation program was created. The program provides regional coordination, outreach, data management services and technical assistance in developing regional strategies for mitigating natural hazards and preparing communities and residents for disasters. Metro has been collecting and analyzing seismic risk in parts of the region and collaborating with local and state

emergency management agencies to develop a comprehensive emergency management plan and system in the region.

Metro also conducted a survey aimed at local governments in an attempt to identify policies, ordinances and administrative rules or codes for mitigating natural hazards. The results of the survey shed light on the status of the region's mitigation efforts. In addition, the Metro Council approved the formation of a Natural Hazards Technical Advisory Committee to consider measures that local governments, businesses and residents can take to reduce damage from natural disasters.

Analysis

Natural hazard issues create implications for the regional planning process and the urban forms that develop from that planning process. Over time, implementing natural hazards planning measures can reduce the disaster vulnerability of the people of the region and the structures they build. Recognizing the linkage between the quality of life and the urban form of the Metro region, several metropolitan planning issues that describe the natural and built environments raise natural hazards implications.

Following are categories of metropolitan features that could be affected by natural disasters.

Housing

Regional objectives for housing related to specific goals for low- and moderate-income housing can be thwarted by a disaster if the desired housing is located on hazardous ground or not engineered to economically survive an event. Natural hazard considerations can encourage the location of housing mixtures on different hazard zones.

For example, concentrations of lower income housing on marginal land can create significant housing shortages after a natural disaster. A regional policy of evenly distributing low- and medium-income throughout all communities may improve the performance of the housing stock in a natural hazard event by distributing the population across a variety of soil and slope conditions.

Public Services and Facilities

Natural hazards considerations will play a key role in the development and redevelopment of public services and facilities. Public safety services, schools and other

key facilities must be built to standards that provide some assurance that they will survive a natural hazard event and be available to provide service when most needed. Natural hazard events can cause expensive and prolonged disruption of a community's vital systems (e.g., water, sewer, telecommunications and other utility services). Identification of system segments that cross hazardous ground can offer opportunities to engineer system components to respond better in an event, or relocating an especially fragile component to safer ground.

Transportation

Transportation routes can be severely disrupted by natural events, hampering response and delaying recovery. Priority routes for response and recovery resource movement can be identified. Intermodal transfer points can be especially important after a natural hazards event. Engineering strategies to improve transportation structure performance can be developed. Alternative routes can be designated to improve resource movement in the event of failure to a priority route. Natural hazards considerations can be incorporated in the public involvement process to establish transportation funding priorities.

Economic Opportunity

Natural hazard events can severely disrupt the local and regional economy. For example, hard hit areas may lose many of its stores, requiring neighborhood residents to travel to distant stores, thereby also placing additional burdens on transportation systems in the disaster recovery phase.

To the extent that long-term economic development plans describe the types of industrial and commercial development appropriate to designated areas, consideration of the relationship of development to the location of natural hazards should be incorporated.

Urban/Rural Transition

Natural hazards can play a role in defining an Urban Growth Boundary (UGB) providing a clear transition between urban and rural land. Located along natural and built features (e.g., roads, rivers, floodplains or other major topographic features), the UGB may help define the types of natural hazards to be considered in the land use and emergency planning process.

Developed Urban Land

One key objective of growth management is to encourage the development and redevelopment of existing urban land. Development in areas known or newly discovered to be susceptible to natural hazards is especially ripe for redevelopment to reduce the vulnerability of the people who live in the area. In coordination with land use, economic development, redevelopment and financing agencies, a combination of regulations and incentives may be employed to encourage people to continue to live, work and shop in already developed areas that are susceptible to natural hazards.

For example, unreinforced masonry buildings (URMs) can pose significant earthquake risks to inhabitants and passersby. Neighborhoods that contain many URMs may become candidates for targeted regulation and assistance, perhaps requiring life safety retrofit of URMs by a specified date, and developing the bonding authority to provide low-interest loans to building owners for that work.

Urban Design

Excellent design of settlement patterns, structures and landscapes is a distinguishing characteristic of healthy communities. Natural hazard considerations can assist in the design process to match structures to their environment and improve the feeling of personal safety in an urban setting.

Other Implications

The natural hazards management planning process also has close ties to watershed management and water quality and supply measures, including those related to watershed protection and restoration to ensure the integrity of streams, wetlands and floodplains, and their multiple biological, physical and social values. Natural hazards considerations can also create multi-objective watershed management opportunities and encourage reliance on natural processes to address flood control, storm water management, abnormally high winter and low summer stream flows.

Hazard factors can influence where natural areas should be identified for preservation. In many cases, land susceptible to flooding is also appropriate for wildlife habitat. Identification of land subject to natural hazards other than flooding may offer similar opportunities. After a natural disaster, programs to preserve damaged areas as open space can be a key component of the post-disaster mitigation and recovery process. This process can be described in the natural hazards functional plan (see Appendix 1g), and

procedures to implement the program outlined in the comprehensive emergency management plan.

Although the potential for water quality degradation resulting from flood has been addressed in the Watershed Management and Regional Water Quality chapter of this plan, other growth management planning measures remain to be discussed in relation to:

Life protection

Personal and public property loss reduction

Business recovery policies

While each of the above categories can be affected by natural disasters, some areas may be affected by more than one hazard. For example, some of the areas in the most hazardous zones depicted in the relative earthquake hazard map can also be within the 100-year floodplain. In addition, several areas in the region are prone to other natural hazards such as severe weather, wildland urban interface fire and volcano at various levels. These hazards have yet to be extensively analyzed.

Consideration of natural hazards as a major factor or constraint in all aspects of the regional planning process will produce realistic information that can be used in developing procedures and standards for achieving Metro's 2040 Growth Concept. This has direct implications on the development of comprehensive land-use plans by cities and counties, and in the development of comprehensive emergency management plans to address issues related to hazard mitigation, emergency preparedness, disaster response and recovery.

Policies

Policies concerning identification and implementation of hazard mitigation, emergency preparedness, disaster response and recovery should be adopted and implemented.

Policies addressing natural hazards are as follows:

5.1 Earthquake Hazard Mitigation Measures

The risk of loss or damage from an earthquake depends on: 1) the presence of seismically-hazardous land (land subject to failure or strong effects from an earthquake); and 2) land use (structures by type and occupancy or use characteristics).

Metro will consider the relative earthquake hazard maps for a variety planning purposes, including:

- urban growth boundary selection
- public facility plans
- transportation planning
- solid waste management plans
- natural hazard mitigation programs
- parks and greenspaces planning

Local governments should be encouraged to apply information contained in the relative earthquake hazard maps in developed and undeveloped areas, including:

- comprehensive land use plans updates
- redevelopment plans updates
- subdivision reviews
- zoning
- infrastructure plans updates
- citing of new public facilities
- public facility plans updates
- developing retrofit and other mitigation programs
- emergency response planning

Comprehensive plans and/or building codes prepared by local governments should be used effectively to institute seismic hazard mitigation measures. Adoption of the earthquake hazard maps and land use mitigation goals and policies in the comprehensive plans is the first step in establishing seismic hazard mitigation measures.

In planning for seismic hazards, land use classifications were established as shown in Figure 11 group land uses according to a common tolerance for risk. Representatives of the public and private sectors participated through the Metro Advisory Committee on Earthquake Damages in reviewing and approving the land use groups in this figure. Each land use group is comprised of uses recommended as having roughly equivalent ability to withstand earthquake damage. Local governments should consider these land use groups for seismic hazard mitigation planning and actions. Many land uses could be placed into more than one category. The table begins with land uses that should be most protected from earthquake damage and ending with land uses that need minimal protection.

Land Uses with Potentially Catastrophic Consequences if Damaged

- Large dams
- Nuclear facilities
- Facilities using/ storing large quantities of hazardous materials (defined by Oregon State law)

High-Occupancy Land Uses with Involuntary or Dependent Occupants

- Day care centers < 250 children
- Day care centers > 250 children
- Schools K-12 <300 students
- Schools K-12 > 300 students
- Convalescent homes < 50 persons
- Convalescent homes > 50 persons
- Jails and retention facilities

Land Uses Essential for Emergency Response

- Fire and police stations
- Garages for emergency vehicles
- Water tanks
- Structures housing fire suppressants
- Government communications centers
- Emergency response centers
- Hospitals
- Medical buildings with surgical services

Land Uses Critical to the Functioning of the Metro Region

- Large power plants
- Power intertie
- Sewage treatment plants
- Water storage/treatment facilities
- Regional highways, bridges & tunnels
- Regional rail lines
- Port facilities
- Major communications facilities
- Telephone exchanges
- Radio and TV stations

Land Uses with High-Occupancy

- Buildings > 10 stories
- Public & private colleges < 500 occupants
- Public & private colleges > 500 occupants
- Public assembly places w/ > 300 capacity
- Hotels & motels > 50 rooms >60,000 sq. ft. > 10 stories
- Major industries & employers
- Apartments > 25 units
- Buildings w/ > 150 employees

Land Uses with Important Local Impacts if Damaged

- Facilities using/storing small quantities of hazardous materials
- Small dams that could cause flooding
- Gas stations
- Highways, streets & bridges
- Utility lines, substations, & gas mains
- Water & sewer mains
- Industries & businesses important to economy
- Health care clinics
- Co-generation plants

Land Uses with Moderate-Occupancy

- Buildings w/4 to 10 stories
- Apartments 9 to 25 units
- Buildings w/ 50 to 150 employees
- Buildings w/ 50 to 150 employees >60,000 sq. ft. >10 stories
- Public assembly places: 50 to 300 capacity
- Hotels & motels <50 rooms <60,000 sq. ft. <10 stories

Land Uses with Low-Occupancy

- Apartments w/ 2 to 8 units
- Buildings w/ < 50 employees
- Buildings w/ 1 to 3 stories
- Public assembly places w/ < 50 capacity
- Single-family houses in a subdivision
- Single-family houses
- Mobile homes in a subdivision
- Mobile homes

Figure 11 Land Uses Grouped By Seismic Risk

5.2 Flood Hazard Mitigation Measures

The surest and safest flood hazard mitigation measure is to build outside areas that can be flooded. However, the FEMA designated floodplains have been shown to be insufficient in protecting property from much less than catastrophic events. Regardless,

many areas that were outside the FEMA 100 year floodplain flooded in 1996.

Acquisition of vulnerable property and relocation of structures can convert a flood hazard area into a community asset.

Approaches for mitigating flood hazards should include but not be limited to the following:

- updating the existing 100-year floodplain using recent flood levels
- separate districts for cluster or planned unit development that keep buildings out of floodplains
- overlay zoning that sets public health, safety or welfare requirements
- subdivision development requirements for locating public utilities and facilities (such as sewer and water systems) to minimize flood damage
- construction of levees and flood walls to mitigate flood hazards, particularly in densely developed urban areas, but should only be utilized when potential upstream and downstream damage is minimal.
- plans to leverage federal, state and local disaster assistance funds that may become available following a flood event.
- long-term capital improvement plans should be prepared and include provisions to elevate above the floodplain essential buildings for public health, safety and welfare services.
- flood threat recognition and/or warning systems should be investigated for cost-effectiveness

5.3 Landslide Hazard Mitigation Measures

Exposure to landslide is a function of site location, type of construction and events that trigger landslides. The affect of landslides hazard on public safety, welfare and recovery cost can be minimized by measures that focus on mitigation. Land use policies and regulations are often the most effective measures for mitigating or minimizing exposure of lives and property to landslides. Such measures include restrictions or the prohibition of development in landslide hazard zones.

Mapping of these areas within the region has not been completed at this time, although efforts are being made to fund this effort.

Local governments should discourage development in the areas of greatest landslide hazard because of the high cost associated with mitigation design, disaster response and recovery. If outright prohibition is not possible, land use policies can ensure or enhance emergency personnel and equipment movement for response to events in landslide hazard zones. Local governments should use land use policies to reduce damage and

maintenance requirements to public and private property thereby enhancing the value of land and facilities in the vicinity of the landslide zone.

Measures for Other Natural Hazards

Although extensive analysis of other natural hazards such as wildland urban interface fire, severe weather and volcano has not been performed, local governments should initiate actions to provide protection to the growing population of the region. Local governments have the primary responsibility for prevention or mitigation of wildland urban fire hazards and emergency response to fire and severe weather events.

Subdivision ordinances, zoning codes, fire and building codes, basic fire prevention equipment and other measures can be used to protect vulnerable lives and property. Coordination of mitigation efforts between governments, utilities and insurance industry should be encouraged in the region.

Clark County

Chapter 6: Clark County

Overview

Clark County is located in southwest Washington, just across the Columbia River from the Metro area. The Metro charter, adopted by the voters within the Metro boundary (Clackamas, Multnomah and Washington counties only) includes the requirement that the regional framework plan shall address:

"... (8) coordination, to the extent feasible, of Metro growth management and land use planning policies with those of Clark County, Washington..."

Such coordination, if it is to be achieved, cannot take the form of unilateral actions by Metro. Rather, it can only come about with the consent of the jurisdictions on both sides of the River. The Future Vision recognized that decisions made in the Metro area could have a much wider impact. The Future Vision Commission concluded that:

"The bi-state metropolitan area has effects on, and is affected by, a much bigger region than the land inside Metro's boundaries. Our ecologic and economic region stretches from the Cascades to the Coastal Range, from Longview to Salem."

This chapter documents coordination, to date, and is not meant as an endpoint. It describes the background and challenges to the Metro region and Clark County communities. Only after review and discussion with representatives from Clark County can new actions, if any, be considered. This regional framework plan allows Clark County to see in one place, existing and contemplated policies of the Metro area and provides for consideration of new policies that might be beneficial to the communities on each side of the Columbia River. Additions or revisions to this chapter may occur after these discussions with representatives from the jurisdictions of Southwest Washington.

Background

Clark County has an estimated 1996 population of 303,500 people. When compared with growth in Clackamas, Multnomah and Washington counties during the period 1980 - 1996, Clark County had the fastest growth rate.

<i>County</i>	<i>1980</i>	<i>1996</i>	<i>Percent Change</i>	<i>Added Population</i>
Clackamas	241,900	313,200	23%	71,300
Clark	192,000	303,500	37%	111,500
Multnomah	562,600	636,000	12%	73,400
Washington	245,800	376,500	35%	130,700
Total	1,244,280	1,631,196	23%	386,916

Figure 12: Population Change by County 1980-1996

A little more than half (52 percent) of the county's population is located within unincorporated areas of the county, but the county also includes the cities of Camas, Battleground, La Center, Ridgefield, Vancouver, Washougal, Yacolt and a portion of Woodland, Washington. Vancouver, which recently completed a large annexation, has a population of 128,453 and is now is the fourth most populous city in the state of Washington. Vancouver was established in 1825 as an outpost of Britain and its Hudson's Bay Company and predates Vancouver, BC, that was established after Oregon and Washington became a U.S. territory.

While separated by the Columbia River, Clark County and its cities are a vital part of the economy of the greater metropolitan area. For example, according to 1990 Census data, about 34 percent of the Clark County workforce worked in the Metro area. This could also be described as about 7 percent of the Metro area workforce lives in Clark County. These workers provide the Metro area with many different skills and contribute to Oregon State revenues through the non-resident income taxes they pay. Residents of Clark County are able to utilize many of the amenities of the Metro area, including Portland International Airport, cultural and recreational opportunities, as well as retail shopping opportunities, given that Oregon has no sales tax. Information about development trends in Clark County since 1990 suggest that the percent of the Clark County workforce that commutes to the Metro area remains at least at 1990 levels, if not higher.

Coordination between the region and Clark County is important if issues of common concern are to be addressed. Metropolitan-wide aspects of transportation, air quality, land use and economic development issues have been raised from time to time and bi-state coordination can aid resolution of such issues.

Accordingly, representatives from the County and Vancouver, Washington are members of several Metro policy advisory Committees, including MPAC and JPACT, as well as two technical committees (TPAC and MTAC). The Future Vision Commission, required by the Metro Charter to complete a broad vision statement about the region, also included the Chair of the Clark County Commissioners, John Magnano. His personal declaration included in the Future Vision stated: "Future Vision recognizes that we are irreversibly linked. It will help bring our communities together to create something greater than the sum of our individual parts."

Other examples of ongoing bi-state coordination include population forecasts, transportation modeling and land use plan mapping. Population forecasts for the Metro area prepared by Metro are coordinated with those for Clark County, which are prepared by the Office of Financial Management, State of Washington. The transportation model that Metro maintains includes Clark County and as such is coordinated with the jurisdictions of southwest Washington, consistent with their comprehensive land use plans and policies. In addition, as the Metro 2040 Growth Concept concept was being developed, staffs from both sides of the River worked to ensure that the Metro 2040 Growth Concept map accurately reflected the Vancouver and Clark County Comprehensive plans.

Further, some joint policy actions have been coordinated between the region and Clark County regarding issues of joint concern. For example, transportation is an issue that transcends political boundaries. Coordinated transportation between the two states dates back at least to the early 1900's, when a bridge across the Columbia was built. This bridge, still in use today, included lanes for auto and truck traffic as well as for a trolley car. At that time, it was possible to take a street car from Oregon City to Vancouver and the Orchards area of Clark County.

In the intervening years, the privately owned system which by 1925 included over 700 miles of urban and interurban street car lines, were gradually eliminated on both sides of the River and public road, highway and freeway investments were made. Public transit systems based on buses using public roads were also established as a substitute for the rail-based transit systems. The most notable roadway improvements included substantial additions to the interstate bridge, conversion of Highway 99 to the Interstate 5 Freeway and the construction of the Interstate 205 Freeway bypass, including the Glenn Jackson bridge providing a second bridge over the Columbia River.

More recently, the Metro jurisdictions and the jurisdictions within southwest Washington have worked on reestablishing possible light rail connections. Initial joint transportation system analysis concluded that all high capacity transit (HCT) modes, including light rail transit (LRT), should be further evaluated in the I-5 corridor and that only HCT bus options should be further evaluated in the I-205 corridor. Analysis of the two bi-state corridors resulted in the selection of the I-5 corridor as the first priority for HCT in Clark County.

Subsequent studies resulted in the selection of LRT as the preferred mode and I-5 as the preferred alignment in Clark County with a terminus in the vicinity of 88th Street. A local financing proposal was developed to provide local funding for an LRT project from Clark County to Clackamas County, Oregon.

While the voters of the Metro region approved a \$475 million bond measure providing the local match for South/North project, Clark County voters rejected the financing proposal for the Clark County portion of the South/North LRT project in February 1995. The defeat of the LRT vote in Clark County led to an extensive discussion of the next steps for addressing bi-state transportation needs. Policy makers agreed that it was imperative to engage the community in a full debate on a wide range of transportation issues and needs facing Clark County. (In spite of a Metro-wide bond measure approval, a state-wide approval of a transportation funding package including the South/North project was defeated in 1996, leading to substantial cost cutting proposals to the proposed South/North LRT project and will need to be brought back to Metro area voters. In addition to the road, freight, transit, bike and pedestrian improvements included in the current Regional Transportation Plan, Metro is also analyzing other methods of addressing transportation needs including congestion pricing)

Shortly after the Clark County vote, county elected officials recommended that a citizens-based discussion of future transportation issues be implemented. As a first step in the process, the Board of Clark County Commissioners and the Vancouver City Council appointed a group of citizens to serve on a Focus Group to recommend a citizen-based approach to discuss southwest Washington's future transportation needs. Coordinated by the Southwest Washington Regional Transportation Council, the results of the two Focus Group meetings in May 1995 became the foundation for the issues subsequently examined by the Transportation Futures Committee.

Among the findings of the Transportation Futures Committee were the following:

- Current and past land use and transportation planning and funding have encouraged use of the auto to the detriment of alternative modes of transportation, such as public transit, bicycle and pedestrian travel.
- The Committee recommended adjusting this imbalance by supporting a balanced approach to improvements, including public mass transit, bicycle, and pedestrian facilities and roads.
- The Committee found that land use decisions should not only be supported by transportation planning, but should encourage more responsible neighborhood development that supports multiple transportation alternatives. Techniques to achieve this goal include:
 - allow for appropriate commercial development in predominantly residential neighborhoods
 - reduce or eliminate minimum parking requirements in favor of maximum requirements
 - provide significant incentives for businesses to reduce parking needs and improve access for pedestrians, bicyclists and buses
 - include capacity for public mass transit and other alternative modes in overall road capacity when meeting concurrency requirements.

To reduce commuting trips, the Committee recommended incentives for citizens and the private sector and requirements for government to encourage:

- Telecommuting
- Altered work hours (flex-time or staggered work hours)
- Ride-sharing

In addition, the Committee endorsed sufficient funding for maintenance and necessary expansion of their community's existing road system.

With regard to I-5 capacity, the Committee recommended that I-5 remain as the priority corridor for bi-state transportation improvements and called for making more effective use of existing facilities with the focus on lower capital improvements before higher cost options are considered. Results of the survey also indicated that HOV improvements and I-5 widening be given consideration in the corridor. A detailed analysis of I-5 capacity, including a reconnaissance of the effectiveness of a wide range of transportation modes should be undertaken to provide more balanced capacity and improved travel flows along I-5. Scope of analysis should include the full bi-state I-5 corridor from Clark County to downtown Portland.

Regarding the South/North Corridor Project Involvement, light rail transit in the I-5 corridor was identified as a viable option by the Committee based on technical findings

that the Clark County segment of the South/North Corridor has significant bi-state mobility benefits. It was recommended that a strategy be undertaken which focuses on lower cost options for the corridor in the near term and leaves light rail as an option for a future community decision. Accordingly, the Committee recommended that the South/North Final Environment Impact Statement (scheduled for completion Fall, 1997) reflect a phased bi-state strategy which includes near term bus and park-and-ride improvements in Clark County in place of the Clark County light rail terminus option. Additional new study activities previously mentioned in this report will be coordinated with the phased bi-state strategy and will include the bi-state mobility impacts of high occupancy vehicle improvements, commuter rail, and I-5 corridor travel flow improvement options. The Clark County region should continue participation in the South/North Corridor Study to ensure a coordinated strategy for resolving bi-state mobility problems.

With regard to bi-state transportation facilities, the Committee supported a balanced approach to bi-state transportation issues, focusing on:

- Reducing demand for new transportation facilities and improvements in the long-term by encouraging economic development that supports family wage jobs in Clark County and reduces the need to commute to Oregon.
- Promoting the use of alternative modes of transportation to driving alone (e.g. public transit, carpooling, bicycling, altered work hours and telecommuting)
- Increasing capacity to accommodate long-term population growth and continued need for bi-state transportation facilities, with first priority on the I-5 corridor.
- Making more effective use of existing facilities is a high priority in the following order of preference.
 1. Improved and/or expanded bus service
 2. High Occupancy Vehicle lanes (using existing facilities wherever possible)
 3. Commuter rail
 4. Light rail
 5. Reversible lanes
 6. Widening I-5 (highway and bridge) for general purpose traffic
 7. Ferry system

Further, the Committee found that: a third auto bridge and highway corridor was not an acceptable solution to bi-state congestion; reducing automobile congestion and demand will free up capacity for freight highway needs; the practice of "piggybacking"

(transporting truck containers by rail) as well as improved rail/truck/port connections should be encouraged.

With regard to a third highway corridor and bridge, Metro came to similar conclusions to those of the Clark County Transportation Futures Committee. The Metro Council approved resolution 96-2316, establishing a position on a third Columbia River Highway Bridge. This resolution concluded that the two Columbia River crossing concepts which were under consideration by the Clark County Transportation Futures Committee were inconsistent with long-range planning efforts in the Oregon portion of the metropolitan area and would not provide significant transportation benefits to the residents of the region.

However, while the Clark County Transportation Futures Committee found that a third highway corridor and bridge was not an acceptable solution to address bi-state congestion, results from a Clark County citizens survey of the Committee's findings, indicated a difference of opinion on this issue. Accordingly, The Transportation Futures Committee recommended that in order to further community discussion, a public discussion of a third highway corridor concept was recommended. They further recommended that in addition to the travel and cost impacts developed for the TFC, this discussion should address air quality, land use, historical and cultural resources, and community goals and livability.

Analysis

Given the variety and strength of connections between the Metro area and southwest Washington and the growth that is likely to occur on both sides of the Columbia River, it is probable that at a minimum, transportation will remain an important subject of bi-state discussion. Residents of southwest Washington will remain concerned with access to the Metro area for jobs, airport entry, shopping and cultural opportunities. Residents of the Metro area will remain concerned with the capacity of the existing and an enhanced road system to carry auto and freight at reasonable levels of service. These concerns are likely to be heightened in the near future, when half of the lanes on the I-5 bridge are closed for repair.

A combination of transportation, land use, demand management and economic development strategies may be means to address the fundamental challenge to the bi-state area. That is, the capacities of the I-5 and I-205 bridges is limited and plans for substantial increases in their capacity is not currently planned. As noted earlier, a third

bridge is not consistent with Metro Council policy and not favored by the Clark County Transportation Futures Committee. The problem could be addressed by exploring growth management and land use solutions as enumerated by the Transportation Futures Committee. Possible solutions could include ways to ensure that the Clark County ratio of jobs created to new housing built is greater than current rates. For such a strategy to be effective, the jobs created would have to be consistent with the wage and skill profile of Clark County. Encouraging such job creation may prove difficult as the infrastructure and sheer number of jobs in the Metro area are much more numerous than in Clark County. While there is a substantial amount of land designated for various employment uses within the county, as noted in the Columbia River Economic Development Council's *1997 Clark County Profile*, for at least the past twelve years, the Oregon state tax structure is lower than that of the state of Washington's. While the difference between the two states has narrowed substantially and there are now only marginal differences, job creation and population statistics document the continuing tendency towards greater job creation in the Metro area and greater population growth in southwest Washington.

Discussions with representatives of southwest Washington may provide opportunities to explore these and other growth management and land use policy options to address this and other issues of common interest. This Chapter merely attempts to present the challenges before the communities.

Environmental Education

Chapter 7: Environmental Education

Overview

Vital to any plan is the need to communicate the basic policy choices and the underlying rationale for the selected policies to as many of the residents of the region as possible. This chapter is intended to address the role of environmental awareness and education in relationship to the principles of this Regional Framework Plan.

Metro's Regional Framework Plan has been written to reflect the values of the citizens of the region for a compact urban form and the resulting conservation of rural areas and contiguous wildlife corridors. However, the degree to which these goals are implemented or not implemented will likely make a substantial difference to the future livability of the region, as well as the state of rural areas and wildlife beyond. In order to communicate the tradeoffs between urban needs and those of the wildlife and natural landscape beyond our region, a technical plan and venues for dissemination of that information are necessary and integral components in the policy.

The following six statements describe the values that will help form an educational policy to help the community understand the implications of the regional framework plan's urban policies and how these can be implemented in a meaningful and productive way to preserve or enhance our region's livability.

- The roots of meaningful action are caring relationships
- Every person makes a difference in the quality of life
- The future depends on our reverence for life
- Diversity is essential to the balance of life
- We meet life's challenges through discovery, exploration and sharing
- We live our values.

The Metro Washington Park Zoo is an institution dedicated to these values and has the largest recreational attendance in the region. For these reasons, education about the connection between the natural world and the urban one seems particularly fitted to the Zoo.

This chapter will outline methods of implementing educational policies that can guide Metro and local governments in reaching the public in a meaningful way. It will also provide opportunities for public discourse on subjects such as protection of natural resources, importance of contiguous open spaces, balance of human settlement and green space, and the impact of development on Oregon's natural environment. This chapter is written to focus on the educational policies that are necessary to help the community understand the environmental choices still before the residents of the region.

This chapter is in development. When completed, it will synthesize the policies and discussions covered in the other sections of the plan. It is anticipated that the draft of this chapter will follow within the next few months and evolve simultaneously with the other sections as they are reviewed by the public and local governments.

Management

Chapter 8 Management

Overview

Any plan put into effect is only a set of policies or actions based on what is known at the time. Actual conditions can and do change. Accordingly, any plan which is intended to be useful over a period of time, must include ways of addressing new sets of circumstances. To this end, this chapter includes descriptions of policies and processes that will be used to keep the regional framework plan abreast of current conditions and a forward thinking document.

In addition, this plan includes disparate subjects, ones that while interconnected, at times suggest conflicting policy actions. This chapter describes the ways in which such conflicts can be resolved.

Background

Goal I of the Regional Urban Growth Goals and Objectives, originally adopted in 1991 and now wholly incorporated within this document, provides the process for determining regional policies which includes key participants, roles and procedures to be used.

Citizen involvement in the discussion of issues must be paramount in any public decision and regional issues are no different. While detailed discussions with each and every of the 1.2 million residents of the region on any one issue is not practical, responsibility for determining the general public's values and interests as well as responding to individual citizen's concerns is one which Metro must take seriously and continue to find ways to improve. An advisory committee, the Metro Committee for Citizen Involvement, is the primary resource for determining how best to hear citizen concerns. Tools for determining the general public's values are newsletters that describe the choices related to upcoming public decisions, open houses, presentations to neighborhood and citizen participation organizations, Metro's web page, random surveys and related public opinion measuring instruments.

Methods for hearing individual concerns are the Metro hotline, e-mail, written mailed correspondence to the Metro Council and its members and testimony at public hearings. When the Metro Council is making a decision, these materials are provided to the Metro Council and any interested parties and included in the public hearing record. (For example, oral comments recorded on the hotline are transcribed and forwarded to the Metro Council as are any written correspondence.)

Implementation of region-wide policies are dependent on actions by the cities, counties and special districts of the region. In order to ensure that local jurisdictions have an opportunity to discuss, debate and recommend regional policies, two advisory committees have been created comprised primarily of elected officials of the region. These two committees are the Metro Policy Advisory Committee (MPAC) and the Joint Policy Advisory Committee (JPACT). MPAC deals primarily with land use issues of regional significance, while JPACT addresses regional scale transportation concerns. Prior to regional land use or transportation decisions, the Metro Council seeks recommendations from one or in some cases both of these committees. In addition, MPAC and JPACT have technical committees (MTAC and TPAC) which serve the policy committees, providing technical analysis and recommendations as requested. These technical committees are comprised of the chief planning and transportation staffs from throughout the region as well as having citizen members and members from various interest groups.

Analysis

There are two major issues with regard to management of the regional framework plan. These are: 1) coordination of the elements of the regional framework plan and 2) maintaining the regional framework plan as a document which continues to address the demands of a changing future.

Coordination and integration of the various elements is an important, yet difficult task. This regional framework plan addresses many disparate elements. Coordination is pursued by several means. First, by listing all of the objectives and policies in one document, everyone can see the various elements. Second, the Growth Concept map illustrates how the various elements - land use, transportation, open space, etc. are expected to develop or be conserved on the landscape.

However, implementation of the Growth Concept will inevitably result in some conflicts. Economic theory suggests that it is not possible to maximize for all values

simultaneously. If all of the goals and objectives could be expressed in dollars or some other common measurement, then total merit to the region of a plan could be calculated. However, such a common measure is not available and at least each element, if not portions of each element are attempts to articulate very different, though particular values, such as mobility or protection of the natural habitat, etc.

What is available is a much more common sense approach. Each element expresses policies and values to which the region aspires. As implementation of the plan is accomplished by the cities, counties and special districts of the region, conflicts between these will inevitably arise. In most cases, these conflicts will be resolved at the local level, although recurring conflicts or conflicts with region-wide significance may be addressed by Metro. In either case, the process for such resolution will be a public one. That is, the conflict will be described, technical information provided, the public will have the opportunity to make their concerns known and then the public's duly elected officials (city or county if at the local level or, after consultation with local jurisdictions, the Metro Council if at the region level) will make a decision. While any one party may find fault with any one decision, and may appeal a decision to the courts, it is important to remember that in most cases it is impossible to maximize for all values and the decisions before elected officials are ones in which conflicting values are expressed. By making these decisions in a public forum by a public body serving the public, a democratic, though not always quick, decision is made. It is also the way in which conflicting values can be sorted out.

Another management issue is understanding how the policies are affecting the region and understanding when changes in conditions in the region may call for changes in the regional framework plan. Sometimes these "points of divergence" are subtle and only years later is it clear that conditions have changed. In other cases major changes in public attitudes, economic conditions or other factors may be clearly evident. One way to help understand what is happening is to institute a system of measurements to gauge the success or lack thereof, of regional policies. Performance measures, a term used in this document, can be used to periodically measure factors relating to growth capacity, housing affordability, open space conservation and other conditions which are of public concern and for which in some cases, small changes may signal greater future problems. These measurements can also help the region assess its value choices and may be a basis for emphasizing or reducing the priority of any one value compared with another.

Following are the management policies that should be pursued as Metro develops, implements and monitors compliance with the policies contained in the previous chapters.

Policies

8.1 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.

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

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.

8.2 Metro Policy Advisory Committee

The 1992 Metro Charter has established the MPAC to:

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 UGB;

serve as a forum for identifying and discussing areas and activities of metropolitan or subregional concern; and

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

MPAC Composition. The initial MPAC shall be chosen according to the Metro Charter and, thereafter, according to any changes approved by majorities of the 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 concern. The voting membership shall include elected and appointed officials and citizens of Metro, cities, counties, school districts and states consistent with section 27 of the 1992 Metro Charter.

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

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 MPAC 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.

8.3 Applicability of Regional Framework Plan Policies

The goals and objectives included in Regional Framework Plan Policies have been developed pursuant to ORS 268.380(1) and adopted and acknowledged as the Regional Urban Growth Goals and Objectives. Therefore, they comprise neither a comprehensive plan under ORS 197.015(5) nor a functional plan under ORS 268.390(2). All functional plans adopted by the Metro Council shall be consistent with these goals and objectives. Metro's management of the UGB 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 UGB:

These Framework Plan policies shall apply to adopted and acknowledged comprehensive land use plans as follows:

- 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
- the management and periodic review of Metro's acknowledged UGB Plan, shall be consistent with these goals and objectives, and
- the MPAC 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.

These Framework Plan Policies shall apply to Metro land use, transportation and greenspace activities as follows:

- the urban growth boundary plans, regional framework plan, functional plans, and other land use activities shall be consistent with these goals and objectives.
- to the extent that a proposed policy or action may be compatible with some goals and objectives and incompatible with others, consistency with this Framework Plan may involve a balancing of applicable goals, subgoals and objectives by the Metro Council that considers the relative impacts of a particular action on applicable goals and objectives.

Periodic Updates of the Framework Plan. The MPAC shall consider the regular updates of these goals and objectives and recommend based on a periodic update process adopted by the Metro Council.

8.4 Urban Growth Boundary Plan

The UGB Plan has two components:

- the acknowledged UGB line
- acknowledged procedures and standards for amending the UGB line. Metro's UGB Plan is not a regional comprehensive plan but a provision of the comprehensive plans of the local governments within its boundaries. The UGB Plan shall be in compliance with applicable statewide planning goals and laws and consistent with these goals and objectives. Amendments to the UGB Plan shall demonstrate consistency only with the acknowledged procedures and standards. Changes of Metro's acknowledged UGB Plan may require changes in adopted and acknowledged comprehensive plans.

8.5 Functional Plans

Functional plans are limited purpose plans, consistent with these goals and objectives, which address designated areas and activities of metropolitan concern. Functional plans are established in state law as the way Metro may recommend or require changes in local plans.

Those functional plans or plan provisions containing recommendations for comprehensive planning by cities and counties may not be final land use decisions. If a provision in a functional plan, or an action implementing a functional plan require changes in an adopted and acknowledged comprehensive plan, then adoption of provision or action will be a final land use decision. If a provision in a functional plan, or Metro action implementing a functional plan require changes in an adopted and acknowledged comprehensive plan, then that provision or action will be adopted by Metro as a final land use action required to be consistent with statewide planning goals. In addition, regional framework plan components will be adopted as functional plans if

they contain recommendations or requirements for changes in comprehensive plans. These functional plans, which are adopted as part of the regional framework plan, will be submitted along with other parts of the regional framework plan to LCDC for acknowledgment of their compliance with the statewide planning goals. Because functional plans are the way Metro recommends or requires local plan changes, most regional framework plan components will probably be functional plans. Until regional framework plan components are adopted, existing or new functional plans will continue to recommend or require changes in comprehensive plans.

- **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.
- **New Functional Plans.** New functional plans shall be proposed from one of two sources:
 - the MPAC may recommend that the Metro Council designate an area or activity of metropolitan concern for which a functional plan should be prepared; or
 - the Metro Council may propose the preparation of a functional plan to designate an area or activity of metropolitan concern and refer that proposal to the MPAC.

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 MPAC 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 MPAC 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 if the MPAC 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:

- adopt the proposed functional plan; or
- refer the proposed functional plan to the MPAC in order to consider amendments to the proposed plan prior to adoption; or
- amend and adopt the proposed functional plan; or

- 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.

- **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 concern, 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 requirement should not or cannot be incorporated into its comprehensive plan, then Metro shall review any apparent inconsistencies by the following process:
 - Metro and affected local governments shall notify each other of apparent or potential comprehensive plan inconsistencies.
 - After Metro staff review, the MPAC shall consult the affected jurisdictions and attempt to resolve any apparent or potential inconsistencies.
 - The MPAC 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 requirements in a regional functional plan.
 - The Metro Council shall review the MPAC report and hold a public hearing on any unresolved issues. The Council may decide to:
 - amend the adopted regional functional plan; or
 - initiate proceedings to require a comprehensive plan change; or
 - find there is no inconsistency between the comprehensive plan(s) and the functional plan.

8.6 Periodic Review of Comprehensive Land Use Plans

At the time of LCDC initiated periodic review for comprehensive land use plans in the region the MPAC:

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

8.7 Implementation Roles

Regional planning and the implementation of this Framework Plan shall recognize the inter-relationships between cities, counties, special districts, Metro, regional agencies and the State, and their unique capabilities and roles.

- **Metro Role.** Metro shall:
 - identify and designate areas and activities of metropolitan concern;

- provide staff and technical resources to support the activities of the MPAC within the constraints established by Metro Council;
- serve as a technical resource for cities, counties, school districts and other jurisdictions and agencies;
- facilitate a broad-based regional discussion to identify appropriate strategies for responding to those issues of metropolitan concern;
- adopt functional plans necessary and appropriate for the implementation of the regional framework plan;
- coordinate the efforts of cities, counties, special districts and the state to implement adopted strategies; and
- adopt and review consistent with the Metro Charter and amend a Future Vision for the region, consistent with Objective 9.
- **Role of Cities**
 - adopt and amend comprehensive plans to conform to functional plans adopted by Metro;
 - identify potential areas and activities of metropolitan concern through a broad-based local discussion;
 - cooperatively develop strategies for responding to designated areas and activities of metropolitan concern ;
 - participate in the review and refinement of these goals and objectives.
- **Role of Counties**
 - adopt and amend comprehensive plans to conform to functional plans adopted by Metro;
 - identify potential areas and activities of metropolitan concern through a broad-based local discussion;
 - cooperatively develop strategies for responding to designated areas and activities of metropolitan concern;
 - participate in the review and refinement of these goals and objectives.
- **Role of Special Service Districts.**
 - assist Metro, through a broad-based local discussion, with the identification of areas and activities of metropolitan concern and the development of strategies to address them, and participate in the review and refinement of these goals and objectives. Special Service Districts will conduct their operations in conformance with acknowledged Comprehensive Plans affecting their service territories
- **Role of School Districts**
 - advise Metro regarding the identification of areas and activities of school district concern;
 - cooperatively develop strategies for responding to designated areas and activities of school district concern;

- participate in the review and refinement of these goals and objectives.
- **Role of the State of Oregon**
 - advise Metro regarding the identification of areas and activities of metropolitan concern;
 - cooperatively develop strategies for responding to designated areas and activities of metropolitan concern;
 - review state plans, regulations, activities and related funding to consider changes in order to enhance implementation of the regional framework plan and functional plans adopted by Metro, and employ state agencies and programs and regulatory bodies to promote and implement these goals and objectives and the regional framework plan;
 - participate in the review and refinement of these goals and objectives.

8.8 Performance Measures

Metro Council, in consultation with MPAC and the public, will develop performance measures designed for considering the Regional Framework Plan policies. The term "performance measure" means a measurement aimed at determining whether a planning activity or 'best practice' is meeting the objective or intent associated with the 'best practice.' This concept is also consistent with the Future Vision call for a "...state of the region report on our progress toward achieving the objectives...."

Performance measures for this chapter will use state benchmarks to the extent possible or be developed by Metro Council in consultation with MPAC and the Metro Committee for Citizen Involvement. Performance measures for Chapters 2-6 are measured by several different geographies including by region, jurisdiction, 2040 design type and market area..

Performance Measures for Chapters 2-6 include the following:

1. Vacant Land Conversion
2. Housing Development, Density, Rate and Price
3. Job Creation
4. Infill and Redevelopment
5. Environmentally Sensitive Lands
6. Price of Land
7. Residential Vacancy Rates
8. Access to Open Space
9. Transportation Measures

After concluding which measures are most useful in assessing progress in implementing Metro policies, the Metro Council has directed these measures to be completed every two years. Corrective actions may be taken by the Metro Council if they find that anticipated progress is lacking or if Metro goals or policies need adjustment. By assessing progress or lack of it on a relatively short time frame, it is hoped that if need arises for adjustments these can be made soon after any problem arises and so that relatively stable conditions can be maintained.

Placeholder – Describe forthcoming Metro Council decision about Performance Measures here.

8.9 Monitoring and Updating

The regional framework plan and all Metro functional plans shall be reviewed every seven years, or at other times as determined by the Metro Council after consultation with or upon the advice of the MPAC. Any review and amendment process shall involve a broad cross-section of citizen and jurisdictional interests, and shall involve the MPAC consistent with Goal 1: Regional Planning Process. Proposals for amendments shall receive broad public and local government review prior to final Metro Council action.

- **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 UGB 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 MPAC 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 UGB will be considered under acknowledged UGB 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.

Implementation

Chapter 9: Implementation

To summarize how each Regional Framework Plan policy is to be implemented, the following table lists each regional policy, and the related implementation recommendation or requirement. After adoption of regional framework plan policies and implementation methods by the Metro Council, demonstration of conformity with the implementation action identified for the Regional Framework Plan policy shall be deemed compliance with that Regional Framework Plan policy.

The land-use section is illustrated below as an example. In coming weeks, a full chart with all policy topics will be completed and made available.

Regional Framework Plan Policy	Implementation Recommendation(s) or Requirement(s)
Land Use	
1.1 Urban Form	Metro Code Chapter 2.01
1.2 Built Environment	Urban Growth Management Functional Plan title 1,2,3,4,6 and 7
1.3 Housing	Urban Growth Management Functional Plan, title 1 and table 1 and title 7.
1.4 Economic Opportunity	Urban Growth Management Functional Plan title 1 and table 1
1.5 Urban Vitality	Urban Growth Management Functional Plan title 1, 7.
1.6 Growth Management	Metro Code Chapter 2.01
1.7 Urban/Rural Transition	Metro Code Chapter 2.01
1.8 Developed Urban Land	Urban Growth Management Functional Plan, title 1 and table 1
1.9 Urban Growth Boundary	Metro Code Chapter 2.01
1.10 Urban Design	Urban Growth Management Functional Plan titles 1, 2, 3, 4 and 6.
1.11 Neighbor Cities	Intergovernmental agreements, as may be signed by cities, counties, state and Metro.
1.12 Protection of Agriculture and Forest Resource Lands	Metro Code Chapter 2.01
1.13 Growth Concept	Urban Growth Management Functional Plan, titles 1,2,3,4 and 6.

Appendices

Appendix A: Urban Growth Management Functional Plan

Adopted by the Metro Council by Ordinance 96-647C, November 21, 1996

URBAN GROWTH MANAGEMENT FUNCTIONAL PLAN

A functional plan for early implementation of the Metro 2040 Growth Concept

Introduction

Metro was created after a vote of the citizens of the region as an elected regional government responsible for addressing issues of metropolitan concern and is enabled by state law, adopted by the Oregon Legislature in 1977. In addition, the voters of the region adopted a Metro Charter in 1992, which describes additional responsibilities for the agency. Metro has an elected seven member Council which determines region-wide policies. In addition, Metro has an elected Executive Officer to enforce Metro ordinances and execute the policies of the council.

The Metro Policy Advisory Committee (MPAC) is comprised of local government elected officials and appointed citizens from throughout the region and was created to advise the regionally elected Metro Council on matters of metropolitan concern. MPAC has recommended specific policies to be included in a new functional plan to be adopted by the Metro Council as soon as practicable. Early implementation of the 2040 Growth Concept is intended to take advantage of opportunities now and avoid use of land inconsistent with the long-term growth policy.

MPAC, as well as the Joint Policy Advisory Committee on Transportation (JPACT), and the Water Resource Policy Advisory Committee (WRPAC) have made recommendations that are the basis for this functional plan. All of the elements considered by MPAC, JPACT and WRPAC were deemed by the Metro Council to be matters of metropolitan concern that have significant impact upon the orderly and responsible development of the metropolitan area. The functional plan establishes regional policies, which will apply to all 24 cities and 3 counties within the Metro region. The legal form of these regional policies is a functional plan, not adoption as a "component" of the Regional Framework Plan. The policies in this functional plan will be updated and coordinated with other policies to be adopted as components of the Metro Charter mandated Regional Framework Plan, on or before December 30, 1997.

Functional plans are a primary regional policy tool that may contain both "recommendations" and "requirements" for changes in local plans. This functional plan relies on further actions, primarily changes to local government comprehensive plans and implementing ordinances, to effectuate the actions described below.

The Meaning of Regional Functional Plan Adoption

The regional policies which are adopted by this Urban Growth Management Functional Plan recommend and require changes to city and county comprehensive plans and implementing ordinances. The purpose of this functional plan is to implement regional goals and objectives adopted by the Metro Council as the Regional Urban Growth Goals and Objectives (RUGGO), including the Metro 2040 Growth Concept. The comprehensive plan changes and related

38 actions, including implementing regulations, required by this functional plan, shall be adopted
39 by all cities and counties in the Metro region within twenty-four (24) months from the effective
40 date of this ordinance.

41 Any city or county determination not to incorporate all required functional plan policies into
42 comprehensive plans shall be subject to the conflict resolution and mediation processes
43 included within the RUGGO, Goal I provisions, prior to the final adoption of inconsistent
44 policies or actions. Upon the effective date of this ordinance, any city or county amendment to
45 a comprehensive plan or implementing ordinance that is inconsistent with requirements of this
46 functional plan, is subject to appeal for violation of the functional plan.

47 Regional Policy Basis

48 The regional policies adopted in this functional plan are formulated from, and are consistent
49 with, the RUGGOs, including the Metro 2040 Growth Concept. The overall principles of the
50 Greenspaces Master Plan are also incorporated within this functional plan. In addition, the
51 updated Regional Transportation Plan (RTP)¹, when adopted, will serve as the primary
52 transportation policy implementation of the 2040 Growth Concept. However, early
53 implementation land use policies in this functional plan are integrated with early
54 implementation transportation policies derived from preparation of the 1996 Regional
55 Transportation Plan, and consistent with the Metro 2040 Growth Concept.

56 Structure of Requirements

57 The Urban Growth Management Functional Plan is a regional functional plan which contains
58 "requirements" that are binding on cities and counties of the region as well as
59 recommendations that are not binding. "Shall" or other directive words are used with
60 requirements. The words "should" or "may" are used with recommendations. In general, the
61 Plan is structured so that local jurisdictions may choose either performance standard
62 requirements or prescriptive requirements. The intent of the requirements is to assure that
63 cities and counties have a significant amount of flexibility as to how they meet requirements.
64 Performance standards are included in most titles. If local jurisdictions demonstrate to Metro
65 that they meet the performance standard, they have met that requirement of the title. Standard
66 methods of compliance are also included in the plan to establish one very specific way that
67 jurisdictions may meet a title requirement, but these standard methods are not the only way a
68 city or county may show compliance. In addition, certain mandatory requirements that apply
69 to all cities and counties are established by this functional plan.

¹ Metro has an adopted Regional Transportation Plan. However, because of changing local and regional conditions, as well as state and federal requirements, the RTP is scheduled to be amended in 1997.

70 REGIONAL FUNCTIONAL PLAN REQUIREMENTS

71 **TITLE 1: REQUIREMENTS FOR HOUSING AND EMPLOYMENT**
72 **ACCOMMODATION**

73 **Section 1. Intent**

74 State law and Metro Code require that the Metro urban growth boundary (UGB) have
75 sufficient capacity to accommodate the expected growth for 20 years. It is Metro policy to
76 minimize the amount of urban growth boundary expansion required for the expected population
77 and employment growth by the year 2017 consistent with all Statewide Goals. To further that
78 policy, it is beneficial and desirable for Metro to require actions intended to increase the
79 capacity for development of land within the UGB. Increasing the capacity of land within the
80 UGB will include requiring changes for appropriate locations in both the rate of development
81 permitted per acre (zoned density) and the rate at which housing and employment are actually
82 built within the UGB. Development consistent with the design types of the Metro 2040
83 Growth Concept will focus these efforts. As a matter of regional policy, each city and county
84 must contribute its fair share to increasing the development capacity of land within the UGB.

85 Metro will work with local jurisdictions to develop a set of region-wide community
86 development code provisions, standards and other regulations which local jurisdictions may
87 adopt that will help implement the 2040 Growth Concept and this Functional Plan. Included in
88 this project will be a review of development standards in support of smaller lots and more
89 flexible use of land, strategies to encourage land assembly, more flexible zoning and
90 improvements in the pre-application process to ensure timely and thorough review and to
91 provide for early involvement by the public to address neighborhood concerns and assure
92 community acceptance of these changes.

93 **Section 2. Methods to Increase Calculated Capacity Required for All Cities and**
94 **Counties**

95 All cities and counties within Metro are required to include within their comprehensive plans
96 and implementing ordinances the following provisions:

97 A. Cities and counties shall apply a minimum density standard to all zones allowing
98 residential use as follows:

- 99 1. a. Provide that no development application, including a subdivision, may
100 be approved unless the development will result in the building of 80
101 percent or more of the maximum number of dwelling units per net acre
102 permitted by the zoning designation for the site; or
- 103 b. Adopt minimum density standards that apply to each development
104 application that vary from the requirements of subsection 1.a., above.

105 However, for the purpose of compliance with Table 1, only those
106 dwelling units that are allowed at these minimum density standards shall
107 be counted for compliance with the calculated capacities of Table 1.

108 2. The minimum density standard may be achieved by use of a small lot district
109 where an average lot size of 5000 to 6200 square feet allows flexibility within
110 that range on development applications, so long as the district remains in
111 compliance with the minimum density standard used to calculate capacities for
112 compliance with Table 1 capacities.

113 3. No comprehensive plan provision, implementing ordinance or local process
114 (such as site or design review) may be applied and no condition of approval may
115 be imposed that would have the effect of reducing the minimum density
116 standard.

117 4. For high density zones with maximum zoned density higher than 37 dwelling
118 units per net acre, the minimum residential density may be 30 dwelling units per
119 net acre.

120 5. This minimum density requirement does not apply (1) outside the urban growth
121 boundary, (2) inside areas designated as open space on the attached Open Spaces
122 Map, and (3) inside areas designated as unbuildable on the attached Open Spaces
123 Map. The maximum zoned density does not include the density bonus for zones
124 that allow them.

125 B. Cities and counties shall not prohibit partitioning or subdividing inside the Metro urban
126 growth boundary where existing lot sizes are two or more times that of the minimum
127 lot size in the development code.

128 C. Cities and counties shall not prohibit the construction of at least one accessory unit
129 within any detached single family dwelling that is permitted to be built in any zone
130 inside the urban growth boundary. Reasonable regulations of accessory units may
131 include, but are not limited to, size, lighting, entrances and owner occupancy of the
132 primary unit, but shall not prohibit rental occupancy, separate access, and full kitchens
133 in the accessory units.

134 Section 3. Design Type Boundaries Requirement

135 For each of the following 2040 Growth Concept design types, city and county comprehensive
136 plans shall be amended to include the boundaries of each area, determined by the city or county
137 consistent with the general locations shown on the 2040 Growth Concept Map:

138 Central City--Downtown Portland is the Central City which serves as the major regional center,
139 an employment and cultural center for the metropolitan area.

140 Regional Centers--Nine regional centers will become the focus of compact development,
141 redevelopment and high-quality transit service and multimodal street networks.

142 Station Communities--Nodes of development centered approximately one-half mile around a
143 light rail or high capacity transit station that feature a high-quality pedestrian environment.

144 Town Centers--Local retail and services will be provided in town centers with compact
145 development and transit service.

146 Main Streets--Neighborhoods will be served by main streets with retail and service developments
147 served by transit.

148 Corridors--Along good quality transit lines, corridors feature a high-quality pedestrian
149 environment, convenient access to transit, and somewhat higher than current densities.

150 Employment Areas--Various types of employment and some residential development are
151 encouraged in employment areas with limited commercial uses.

152 Industrial Areas--Industrial areas are set aside primarily for industrial activities with limited
153 supporting uses.

154 Inner Neighborhoods--Residential areas accessible to jobs and neighborhood businesses with
155 smaller lot sizes are inner neighborhoods.

156 Outer Neighborhoods--Residential neighborhoods farther away from large employment centers
157 with larger lot sizes and lower densities are outer neighborhoods.

158 **Section 4. Requirements to Increase Capacity If Recent Development At Low Density**

159 A. All cities and counties shall determine whether actual built densities for housing during
160 1990-1995 were less than 80 percent of maximum zoned densities. The 1990-1995
161 actual built densities within cities and counties inside the urban growth boundary shall
162 be compared with zoned densities for housing units during that period.

163 Residential developments to be analyzed shall be those which were permitted by a land
164 use action and constructed during the period from 1990 to 1995, and residential density
165 shall be measured in households per net developed acre.¹

166 B. If the comparison of actual built densities to maximum zoned densities for the period
167 1990-1995 indicates that actual built densities were less than 80 percent of maximum
168 zoned densities, the city or county shall also demonstrate that it has considered and
169 adopted at least two of the following methods to increase capacity:

170 a. Financial incentives for higher density housing;

¹ See Title 10, Definitions.

- b. Provisions permitting additional density beyond that generally allowed in the zoning district in exchange for amenities and features provided by the developer;
- c. Removal or easing of approval standards or procedures;
- d. Redevelopment and infill strategies; and
- e. Authorization of housing types not previously allowed by the plan or regulations.

Section 5. Determination of Calculated Capacity of Housing Units and Jobs

The purpose of this section is to require each city and county within the Metro region to determine the housing and employment capacity of its existing comprehensive plan and implementing ordinances, determine calculated capacity for dwelling units and jobs by the method in this section, and increase calculated capacity, if necessary, to achieve the functional plan capacities in Table 1. Each city and county within the Metro region is hereby required to complete the following steps:

A. Determine the calculated capacity of dwelling units and jobs by the year 2017 using the zoned capacity² of its current comprehensive plan and implementing ordinances.

1. Cities and counties shall use Metro estimates of vacant land, and land likely to redevelop, unless they have data that they believe is more accurate. In this case, the city or county may provide Metro the following:

- a. The source of the data;
- b. The reasons that the locally developed data is a more accurate estimate than the Metro estimate of vacant and redevelopable land;
- c. The database from which the above were derived;
- d. The database of committed development lands.

Cities and counties may use their data, subject to acceptance by the Metro Council or its designee, after the Executive Officer determines that the city or county data may be more accurate than the Metro data. The Executive Officer shall notify the Metro Council of each instance in which the data submitted by a city or county is determined by the Executive Officer to be less accurate than Metro data.

2. In determining the calculated capacity of existing comprehensive plans and implementing ordinances, cities and counties shall not use a calculated capacity for dwelling units of more than 80 percent of maximum zoned residential density, unless:

² See Title 10, Definitions, "zoned density" and "calculated capacity."

- 205 a. Actual experience in the jurisdiction since 1990 has shown that
206 development has occurred at density greater than 80 percent of zoned
207 residential density; or
208 b. Minimum density standards are adopted or proposed for adoption in the
209 zoning code that require residential development at greater than 80 percent
210 of maximum zoned residential density.
- 211 3. Cities and counties calculating capacity through the use of density bonus
212 provisions may consider transfers, including off-site transfers, only upon
213 demonstration that previous approvals of all density transfers within the past 5
214 years have resulted in an average of at least 80 percent of maximum zoned
215 densities actually being built.
- 216 4. The capacity calculation shall use only those development types that are
217 allowed in the development code. Any discretionary decision must not diminish
218 the zoned density if it is to be counted as a part of calculated capacity; and
- 219 5. Cities and counties, in coordination with special districts, shall demonstrate that
220 they have reviewed their public facility capacities and plans to assure that planned
221 public facilities can be provided, to accommodate the calculated capacity within
222 the plan period.
- 223 B. Calculate the increases in dwelling unit and job capacities by the year 2017 from any
224 proposed changes to the current comprehensive plans and implementing ordinances that
225 must be adopted to comply with Section 2 of this Title and add the increases to the
226 calculation of expected capacities.
- 227 C. Determine the effect of each of the following on calculated capacities, and include any
228 resulting increase or decrease in calculated capacities:
- 229 1. Required dedications for public streets, consistent with the Regional Accessibility
230 Title;
- 231 2. Off-street parking requirements, consistent with this functional plan;
- 232 3. Landscaping, setback, and maximum lot coverage requirements;
- 233 4. The effects of tree preservation ordinances, environmental protection ordinances,
234 view preservation ordinances, solar access ordinances, or any other regulations
235 that may have the effect of reducing the capacity of the land to develop at the
236 zoned density;
- 237 5. The effects of areas dedicated to bio-swales, storm water retention, open space
238 dedications, and other requirements of local codes that may reduce the capacity of
239 the land to develop at the zoned density.

240 D. If any of the calculated capacities are determined to be less than any of the city or county
241 target dwelling unit and job capacities in Table 1, either jurisdiction-wide or in mixed-use
242 areas, or both, then the city or county shall comply with the performance standards in
243 Section 6 of this Title by amending its comprehensive plans and implementing ordinances
244 to increase calculated capacities, as needed, to comply with the calculated capacities
245 required in Table 1.

246 E. Exceptions to the Section 6.B requirement that target capacities be demonstrated may be
247 requested according to Title 8 if a city or county determines that any calculated
248 capacity requirement in Table 1 cannot be achieved after implementation of Sections 2,
249 3 and 4 of this Title to increase expected capacities.

250 **Section 6. Local Plan Accommodation of Expected Growth Capacity for Housing and**
251 **Employment—Performance Standard**

252 All cities and counties within Metro shall demonstrate that:

253 A. The provisions required in Section 2 of this Title have been included in comprehensive
254 plans and implementing ordinances; and that

255 B. Using the computation method in Section 5, including the minimum residential density
256 provisions required in Section 2, that calculated capacities will achieve the target
257 capacities for dwelling units and full-time and part-time jobs contained in Table 1 in
258 the Appendix to this plan, including both jurisdiction-wide expected capacities and
259 capacities for mixed-use areas; and that

260 C. Effective measures have been taken to reasonably assure that the calculated capacities
261 will be built for dwelling units and jobs; and that

262 D. Expected development has been permitted at locations and densities likely to be
263 achieved during the 20-year planning period by the private market or assisted housing
264 programs, once all new regulations are in effect.

265 **Section 7. Design Type Density Recommendations**

266 A. For the area of each of the 2040 Growth Concept design types, the following average
267 densities for housing and employment are recommended to cities and counties:

- 268 Central City - 250 persons per acre
- 269 Regional Centers - 60 persons per acre
- 270 Station Communities - 45 persons per acre
- 271 Town Centers - 40 persons per acre
- 272 Main Streets - 39 persons per acre
- 273 Corridor - 25 persons per acre

274 **Employment Areas - 20 persons per acre**
275 **Industrial Areas - 9 employees per acre**
276 **Inner Neighborhoods - 14 persons per acre**
277 **Outer Neighborhoods - 13 persons per acre**

278 **TITLE 2: REGIONAL PARKING POLICY**

279 **Section 1. Intent**

280 The State's Transportation Planning Rule calls for reductions in vehicle miles traveled per
281 capita and restrictions on construction of new parking spaces as a means of responding to
282 transportation and land use impacts of growth. The Metro 2040 Growth Concept calls for more
283 compact development as a means to encourage more efficient use of land, promote non-auto trips
284 and protect air quality. In addition, the federally mandated air quality plan adopted by the state
285 relies on the 2040 Growth Concept fully achieving its transportation objectives. Notably, the air
286 quality plan relies upon reducing vehicle trips per capita and related parking spaces through
287 minimum and maximum parking ratios. This title addresses these state and federal requirements
288 and preserves the quality of life of the region.

289 A compact urban form requires that each use of land is carefully considered and that more
290 efficient forms are favored over less efficient ones. Parking, especially that provided in new
291 developments, can result in a less efficient land usage and lower floor to area ratios. Parking also
292 has implications for transportation. In areas where transit is provided or other non-auto modes
293 (walking, biking) are convenient, less parking can be provided and still allow accessibility and
294 mobility for all modes, including autos. Reductions in auto trips when substituted by non-auto
295 modes can reduce congestion and increase air quality.

296 **Section 2. Performance Standard**

297 A. Cities and counties are hereby required to amend their comprehensive plans and
298 implementing regulations, if necessary, to meet or exceed the following minimum
299 standards:

- 300 1. Cities and counties shall require no more parking than the minimum as shown on
301 Regional Parking Ratios Table, attached hereto; and
- 302 2. Cities and counties shall establish parking maximums at ratios no greater than
303 those listed in the Regional Parking Ratios Table and as illustrated in the Parking
304 Maximum Map.. The designation of A and B zones on the Parking Maximum
305 Map should be reviewed after the completion of the Regional Transportation Plan
306 and every three years thereafter. If 20-minute peak hour transit service has
307 become available to an area within a one-quarter mile walking distance for bus
308 transit or one-half mile walking distance for light rail transit, that area shall be
309 added to Zone A. If 20-minute peak hour transit service is no longer available to
310 an area within a one-quarter mile walking distance for bus transit or one-half mile
311 walking distance for light rail transit, that area shall be removed from Zone A.
312 Cities and counties should designate Zone A parking ratios in areas with good
313 pedestrian access to commercial or employment areas (within 1/3 mile walk) from
314 adjacent residential areas.

315 3. Cities and counties shall establish an administrative or public hearing
316 process for considering ratios for individual or joint developments to allow
317 a variance for parking when a development application is received which
318 may result in approval of construction of parking spaces either in excess of
319 the maximum parking ratios; or less than the minimum parking ratios.

320 Cities and counties may grant a variance from any maximum parking ratios through a
321 variance process.

322 B. Free surface parking spaces shall be subject to the regional parking maximums provided
323 for Zone A and Zone B. Parking spaces in parking structures, fleet parking, parking
324 for vehicles that are for sale, lease, or rent, employee car pool parking spaces,
325 dedicated valet parking spaces, spaces that are user paid, market rate parking or other
326 high-efficiency parking management alternatives may be exempted from maximum
327 parking standards by cities and counties. Sites that are proposed for redevelopment
328 may be allowed to phase in reductions as a local option. Where mixed land uses are
329 proposed, cities and counties shall provide for blended parking rates. It is
330 recommended that cities and counties count adjacent on-street parking spaces, nearby
331 public parking and shared parking toward required parking minimum standards.

332 C. Cities and counties may use categories or measurement standards other than those in the
333 Regional Parking Ratios Table, but must provide findings that the effect of the local
334 regulations will be substantially the same as the application of the Regional Parking
335 Ratios.

336 D. Cities and counties shall monitor and provide the following data to Metro on an annual
337 basis:

- 338 1. the number and location of newly developed parking spaces, and
- 339 2. demonstration of compliance with the minimum and maximum parking
340 standards, including the application of any variances to the regional standards
341 in this Title. Coordination with Metro collection of other building data should
342 be encouraged.

343 **TITLE 3: WATER QUALITY AND FLOOD MANAGEMENT CONSERVATION**

344 **Section 1. Intent**

345 To protect the beneficial uses and functional values of resources within the Water Quality and
346 Flood Management Areas by limiting or mitigating the impact on these areas from development
347 activities.

348 **Section 2. Requirement**

349 Cities and counties shall ensure that their comprehensive plans and implementing regulations
350 protect Water Quality and Flood Management Areas pursuant to Section 4. Exceptions to this
351 requirement will be considered under the provisions of Section 7.

352 **Section 3. Implementation Process for Cities and Counties**

353 Cities and counties are hereby required to amend their plans and implementing ordinances, if
354 necessary, to ensure that they comply with this Title in one of the following ways:

355 A. Either adopt the relevant provisions of the Metro Water Quality and Flood Management
356 model ordinance and map entitled Metro Water Quality and Flood Management
357 Conservation Area Map; or

358 B. Demonstrate that the plans and implementing ordinances substantially comply with the
359 performance standards, including the map, contained in Section 4. In this case, the
360 purpose of this map is to provide a performance standard for evaluation of substantial
361 compliance for those jurisdictions who choose to develop their own map of water quality
362 and flood management areas ; or

363 C. Any combination of A and B above that substantially complies with all performance
364 standards in Section 4.

365 **Section 4. Performance Standards**

366 A. **Flood Mitigation.** The purpose of these standards is to protect against flooding, and
367 prevent or reduce risk to human life and properties, by allowing for the storage and
368 conveyance of stream flows through these natural systems.

369 The plans and implementing ordinances of cities and counties shall be in substantial compliance
370 with the following performance standards:

371 1. Prohibit development within the water quality and flood management area; or

372 2. Limit development in a manner that requires balanced cut and fill; unless the
373 project is demonstrated, by an engineering study, that there is no rise in flood
374 elevation or that it will have a net beneficial effect on flood mitigation.

375 3. Require minimum finished floor elevations at least one foot above the design
376 flood height or other applicable flood hazard standard for new habitable
377 structures in the Water Quality and Flood Management Area.

378 4. Require that temporary fills permitted during construction shall be removed.

379 B. **Water Quality.** The purpose of these standards is to protect and allow for enhancement
380 of water quality associated with beneficial uses as defined by the Oregon Water
381 Resources Department and the Oregon Department of Environmental Quality.

382 The plans and implementing ordinances of cities and counties shall be in substantial
383 compliance with the following performance standards:

384 1. Require erosion and sediment control for all new development within the Metro
385 boundary as contained in the Metro Water Quality and Flood Management model
386 ordinance.

387 2. Require to the maximum extent practicable that native vegetation cover is
388 maintained or re-established during development, and that trees and shrubs in the
389 Water Quality and Flood Management Area are maintained. The vegetative cover
390 required pursuant to these provisions shall not allow the use of "Prohibited Plants
391 for Stream Corridors and Wetlands" contained in the Water Quality and Flood
392 Management Model Code adopted by the Metro Council.

393 3. Prohibit new uses of uncontained areas of hazardous materials as defined by DEQ
394 in the Water Quality and Flood Management Areas; and

395 C. **Protect the long term regional continuity and integrity of Water Quality and Flood**
396 **Management Areas**

397 Standards: Local jurisdictions shall establish or adopt transfer of density within
398 ownership to mitigate the effects of development in Water Quality and Flood
399 Management Areas, or through Transferable Development Rights (TDRs), which have
400 substantially equivalent effect as the Metro Water Quality and Flood Management Model
401 Ordinance.

402 Metro encourages local government to require that approvals of applications for
403 partitions, subdivisions and design review actions must be conditioned with protecting
404 Water Quality and Flood Management Areas with a conservation easement, platted as a
405 common open space, or through purchase or donation of fee simple ownership to public
406 agencies or private non-profits for preservation where feasible. Metro and cities and
407 counties shall recognize that applications involving pre-existing development within the
408 Water Quality and Flood Management Areas shall be exempted from the provisions
409 concerning conservation easements and purchase or donation of fee simple ownership to
410 public agencies or private non-profits for preservation.

411 **Section 5. Fish and Wildlife Habitat Conservation Area**

412 A. The purpose of these standards is to conserve, protect, and enhance fish and wildlife
413 habitat within the fish and wildlife habitat conservation areas identified on the water
414 quality and flood management area map by establishing performance standards and
415 promoting coordination by Metro of regional urban water sheds.

416 B. **Fish and Wildlife Habitat Conservation Area Recommendations**

417 These areas shall be shown on the Water Quality and Flood Management Area Map.
418 Fish and Wildlife Habitat Conservation Areas generally include and/or go beyond
419 the Water Quality and Flood Management Areas. These areas shown on the map are
420 Metro's initial inventory of significant fish and wildlife habitat conservation areas. Metro
421 hereby recommends that local jurisdictions adopt the following temporary standards:

- 422 1. Prohibit development in the Fish and Wildlife Conservation Areas that adversely
423 impacts fish and wildlife habitat.

424 Exceptions: It is recognized that urban development will, at times, necessitate
425 development activities within or adjacent to Fish and Wildlife Habitat
426 Conservation Areas. The following Fish and Wildlife Habitat Conservation
427 Mitigation Policy, except for emergency situations, applies to all the following
428 exceptions:

429 A project alternatives analysis, where public need for the project has been
430 established, will be required for any of the exceptions listed below. The
431 alternatives analysis must seek to avoid adverse environmental impacts by
432 demonstrating there are no practicable, less environmentally damaging
433 alternatives available. In those cases where there are no practicable, less
434 environmentally damaging alternatives, the project proponent will seek
435 alternatives which reduce or minimize adverse environmental impacts. Where
436 impacts are unavoidable, compensation, by complete replacement of the impacted
437 site's ecological attributes or, where appropriate, substitute resources of equal or
438 greater value will be provided in accordance with the Metro Water Quality and
439 Flood Management model ordinance.

- 440 a. Utility construction within a maximum construction zone width
441 established by cities and counties.
- 442 b. Overhead or underground electric power, telecommunications and cable
443 television lines within a sewer or stormwater right-of-way or within a
444 maximum construction zone width established by cities and counties.
- 445 c. Trails, boardwalks and viewing areas construction.
- 446 d. Transportation crossings and widenings. Transportation crossings and
447 widenings shall be designed to minimize disturbance, allow for fish and

448 wildlife passage and crossings should be preferably at right angles to the
449 stream channel.

- 450 2. Limit the clearing or removal of native vegetation from the Fish and Wildlife
451 Habitat Conservation Area to ensure its long term survival and health. Allow and
452 encourage enhancement and restoration projects for the benefit of fish and
453 wildlife.
- 454 3. Require the revegetation of disturbed areas with native plants to 90 percent cover
455 within three years. Disturbed areas should be replanted with native plants on the
456 Metro Plant List or an approved locally adopted plant list. Planting or
457 propagation of plants listed on the Metro Prohibited Plant List within the
458 Conservation Area shall be prohibited.
- 459 4. Require compliance with Oregon Department of Fish and Wildlife (ODFW)
460 seasonal restrictions for in-stream work. Limit development activities that would
461 impair fish and wildlife during key life-cycle events according to the guidelines
462 contained in ODFW's "Oregon Guidelines for Timing of In-water Work to
463 Protect Fish and Wildlife Resources."

464 C. Fish and Wildlife Habitat Protection

465 Within eighteen (18) months from the effective date of this functional plan, Metro shall
466 complete the following regional coordination program by adoption of functional plan
467 provisions.

- 468 1. Metro shall establish criteria to define and identify regionally significant fish and
469 wildlife habitat areas.
- 470 2. Metro shall adopt a map of regionally significant fish and wildlife areas after (1)
471 examining existing Goal 5 data, reports and regulation from cities and counties,
472 and (2) holding public hearings.
- 473 3. Metro shall identify inadequate or inconsistent data and protection in existing
474 Goal 5 data, reports and regulations on fish and wildlife habitat. City and county
475 comprehensive plan provisions where inventories of significant resources were
476 completed and accepted by a LCDC Periodic Review Order after January 1, 1993,
477 shall not be required to comply until their next periodic review.
- 478 4. Metro shall complete Goal 5 economic, social, environmental and energy (ESEE)
479 analyses for mapped regionally significant fish and wildlife habitat areas only for
480 those areas where inadequate or inconsistent data or protection has been
481 identified.

482 5. Metro shall establish performance standards for protection of regionally
483 significant fish and wildlife habitat which must be met by the plans implementing
484 ordinances of cities and counties.

485 **Section 6. Metro Model Ordinance Required**

486 Metro shall adopt a Water Quality and Flood Management Model Ordinance and map for use by
487 local jurisdictions to comply with this section. Sections 1-4 of this title shall not become
488 effective until 24 months after Metro Council has adopted a Model Code and map that addresses
489 all of the provisions of this title. Metro may adopt a Model Code and map for protection of
490 regionally significant fish and wildlife habitat. Section 5 of this title shall be implemented by
491 adoption of new functional plan provisions.

492 **Section 7. Variances**

493 City and county comprehensive plans and implementing regulations are hereby required to
494 include procedures to consider claims of map error and hardship variances to reduce or remove
495 stream corridor protection for any property demonstrated to be converted to an unbuildable lot by
496 application of stream corridor protections.

497 **TITLE 4: RETAIL IN EMPLOYMENT AND INDUSTRIAL AREAS**

498 **Section 1. Intent**

499 It is the intent of the Metro 2040 Growth Concept that Employment and Industrial Areas contain
500 supportive retail development. Employment and Industrial areas would be expected to include
501 some limited retail commercial uses primarily to serve the needs of people working or living in
502 the immediate Employment or Industrial Areas; not larger market areas outside the
503 Employment or Industrial Areas.

504 **Section 2. Comprehensive Plan and Implementing Ordinance Changes Required**

505 A. Cities and counties are hereby required to amend their comprehensive plans and
506 implementing regulations, if necessary, to prohibit retail uses larger than 60,000 square
507 feet of gross leasable area per building or business in the Industrial Areas designated on
508 the attached Employment and Industrial Areas Map.

509 B. This subsection applies to city and county comprehensive plan designations and zoning
510 ordinances acknowledged by the effective date of this Functional Plan, which allow retail
511 uses larger than 60,000 square feet of gross leasable area per building or business in
512 Employment Areas designated on the attached Employment and Industrial Areas Map.
513 These cities and counties may continue to allow the extent and location of retail uses
514 allowed in Employment Areas on the effective date of this Functional Plan for the
515 specific zones in acknowledged land use regulations listed in Exhibit A of this Title. For
516 all other zones in Employment Areas, these cities and counties are hereby required to
517 amend their comprehensive plans and implementing regulations, if necessary, to require a
518 process resulting in a land use decision for any retail uses larger than 60,000 square feet
519 of gross leasable area per building or business on those lands where such uses are
520 currently allowed by any process. The standards for the land use decision to allow any
521 such retail uses shall require (1) a demonstration in the record that transportation facilities
522 adequate to serve the retail use, consistent with Metro's functional plans for
523 transportation, will be in place at the time the retail use begins operation; and (2) a
524 demonstration that transportation facilities adequate to meet the transportation need for
525 the other planned uses in the Employment Areas are included in the applicable
526 comprehensive plan provisions. If the city and county comprehensive plan designations
527 and zoning ordinances which allow retail uses larger than 60,000 square feet of gross
528 leasable area per building or business in Employment Areas have not been acknowledged
529 by the effective date of this Functional Plan, subsection 2.C. of this Title shall apply.

530 C. City or county comprehensive plan designations and zoning ordinances acknowledged by
531 the effective date of this Functional Plan which do not allow retail uses larger than 60,000
532 square feet of gross leasable area per building or business in Employment Areas
533 designated on the attached Employment and Industrial Areas Map shall continue to
534 prohibit them unless an exception is established under Section 3 of this Title pursuant to
535 the compliance procedures of Title 8.

536

Section 3. Exceptions

537
538

Exceptions to this standard for Employment Areas may be included in local compliance plans for:

539
540

A. Low traffic generating, land-consumptive commercial uses with low parking demand which have a community or region wide market, or

541
542
543
544
545

B. Specific Employment Areas which have substantially developed retail areas or which are proposed to be or have been locally designated, but not acknowledged by the effective date of this Functional Plan, as retail areas, may allow new or redeveloped retail uses where adequate transportation facilities capacity is demonstrated in local compliance plans as provided in Title 8.

546

Title 4, Exhibit A

547
548
549

Clackamas County unincorporated
Commercial
Commercial Industrial

550
551
552

Lake Oswego
General Commercial
Highway Commercial

553
554

Troutdale
General Commercial

555
556

Hillsboro
General Commercial

557
558

Sherwood
General Commercial

559
560
561

Tigard
General Commercial
Commercial Professional

562
563

Tualatin
Commercial General

564
565

Wilsonville
Planned Development Commercial

566 **TITLE 5: NEIGHBOR CITIES AND RURAL RESERVES**

567 **Section 1. Intent**

568 The intent of this title is to clearly define Metro policy with regard to areas outside the Metro
569 urban growth boundary. **NO PORTION OF THIS TITLE CAN REQUIRE ANY ACTIONS**
570 **BY NEIGHBORING CITIES.** Metro, if neighboring cities jointly agree, will adopt or sign
571 rural reserve agreements for those areas designated rural reserve in the Metro 2040 Growth
572 Concept with Multnomah, Clackamas, and Washington County, and Neighbor City Agreements
573 with Sandy, Canby, and North Plains. Metro would welcome discussion about agreements with
574 other cities if they request such agreements.

575 In addition, counties and cities within the Metro boundary are hereby required to amend their
576 comprehensive plans and implementing ordinances within twenty-four months to reflect the rural
577 reserves and green corridors policies described in the Metro 2040 Growth Concept.

578 **Section 2. Rural Reserves and Green Corridors**

579 Metro shall attempt to designate and protect common rural reserves between Metro's urban
580 growth boundary and designated urban reserve areas and each neighbor city's urban growth
581 boundary and designated urban reserves, and designate and protect common locations for green
582 corridors along transportation corridors connecting the Metro region and each neighboring city.
583 For areas within the Metro boundary, counties are hereby required to amend their comprehensive
584 plans and implementing ordinances to identify and protect the rural reserves and green corridors
585 described in the adopted 2040 Growth Concept and shown on the adopted 2040 Growth Concept
586 Map. These rural lands shall maintain the rural character of the landscape and our agricultural
587 economy. New rural commercial or industrial development shall be restricted to the extent
588 allowed by law. Zoning shall be for resource protection on farm and forestry land, and very low-
589 density residential (no greater average density than one unit for five acres) for exception land.

590 For areas outside the Metro boundary, Metro shall encourage intergovernmental agreements with
591 the cities of Sandy, Canby and North Plains.

592 **Section 3. Invitations for Intergovernmental Agreements**

593 Metro shall invite the cities and counties outside the Metro boundary and named in Section 1 of
594 this title to sign an Intergovernmental Agreement, similar to the draft agreements attached hereto.

595 **Section 4. Metro Intent with Regard to Green Corridors**

596 Metro shall attempt to negotiate a Green Corridor Intergovernmental Agreement with Oregon
597 Department of Transportation (ODOT) and the three counties (Clackamas, Multnomah and
598 Washington) to designate and protect areas along transportation corridors connecting Metro and
599 neighboring cities.

600 **TITLE 6: REGIONAL ACCESSIBILITY**

601 **Section 1. Intent**

602 Implementation of the 2040 Growth Concept requires that the region identify key measures of
603 transportation effectiveness which include all modes of transportation. Developing a full array of
604 these measures will require additional analysis. Focusing development in the concentrated
605 activity centers, including the central city, regional centers, and station communities, requires the
606 use of alternative modes of transportation in order to avoid unacceptable levels of congestion.
607 The continued economic vitality of industrial areas and intermodal facilities is largely dependent
608 on preserving or improving access to these areas and maintaining reasonable levels of freight
609 mobility in the region. Therefore, regional congestion standards and other regional system
610 performance measures shall be tailored to reinforce the specific development needs of the
611 individual 2040 Growth Concept design types.

612 These regional standards will be linked to a series of regional street design concepts that fully
613 integrate transportation and land use needs for each of the 2040 land use components. The
614 designs generally form a continuum; a network of throughways (freeway and highway designs)
615 will emphasize auto and freight mobility and connect major activity centers. Slower-speed
616 boulevard designs within concentrated activity centers will balance the multi-modal travel
617 demands for each mode of transportation within these areas. Street and road designs will
618 complete the continuum, with multi-modal designs that reflect the land uses they serve, but also
619 serving as moderate-speed vehicle connections between activity centers that complement the
620 throughway system. While these designs are under development, it is important that
621 improvements in the most concentrated activity centers are designed to lessen the negative
622 effects of motor vehicle traffic on other modes of travel. Therefore, implementation of amenity
623 oriented boulevard treatment that better serves pedestrian, bicycle and transit travel in the central
624 city, regional centers, main streets, town centers, and station communities is a key step in the
625 overall implementation of the Metro 2040 Growth Concept.

626 It is intended that the entirety of these Title 6 standards will be supplemented by the Regional
627 Transportation Plan (RTP) when the RTP is approved and adopted by the Metro Council.

628 **Section 2. Boulevard Design**

629 Regional routes in the central city, regional centers, station communities, main streets and town
630 centers are designated on the Boulevard Design Map. In general, pedestrian and transit oriented
631 design elements are the priority in the central city and regional centers, station communities,
632 main streets and town centers. All cities and counties within the Metro region shall implement
633 or allow others to implement boulevard design elements as improvements are made to these
634 facilities including those facilities built by ODOT or Tri-Met. Each jurisdiction shall amend
635 their comprehensive plans and implementing ordinances, if necessary, to require consideration or
636 installation of the following boulevard design elements when proceeding with right-of-way
637 improvements on regional routes designated on the boulevard design map:

638 A. Wide sidewalks with pedestrian amenities such as benches, awnings and special lighting;

- 639 B. Landscape strips, street trees and other design features that create a pedestrian buffer
640 between curb and sidewalk;
- 641 C. Pedestrian crossings at all intersections, and mid-block crossings where intersection
642 spacing is excessive;
- 643 D. The use of medians and curb extensions to enhance pedestrian crossings where wide
644 streets make crossing difficult;
- 645 E. Accommodation of bicycle travel;
- 646 F. On-street parking;
- 647 G. Motor vehicle lane widths that consider the above improvements;
- 648 H. Use of landscaped medians where appropriate to enhance the visual quality of the
649 streetscape.

650 **Section 3. Design Standards for Street Connectivity**

651 The design of local street systems, including "local" and "collector" functional classifications, is
652 generally beyond the scope of the Regional Transportation Plan (RTP). However, the aggregate
653 effect of local street design impacts the effectiveness of the regional system when local travel is
654 restricted by a lack of connecting routes, and local trips are forced onto the regional network.
655 Therefore, the following design and performance options are intended to improve local
656 circulation in a manner that protects the integrity of the regional system.

657 Local jurisdictions within the Metro region are hereby required to amend their comprehensive
658 plans and implementing ordinances, if necessary, to comply with or exceed one of the following
659 options in the development review process:

- 660 A. **Design Option.** Cities and counties shall ensure that their comprehensive plans,
661 implementing ordinances and administrative codes require demonstration of compliance
662 with the following:
 - 663 1. New residential and mixed-use developments shall include local street plans that:
 - 664 a. encourage pedestrian and bicycle travel by providing short, direct public
665 right-of-way routes to connect residential uses with nearby existing and
666 planned commercial services, schools, parks and other neighborhood
667 facilities; and
 - 668 b. include no cul-de-sac streets longer than 200 feet, and no more than 25
669 dwelling units on a closed-end street system except where topography,
670 barriers such as railroads or freeways, or environmental constraints such as
671 major streams and rivers, prevent street extension; and

- c. provide bike and pedestrian connections on public easements or right-of-way when full street connections are not possible, with spacing between connections of no more than 330 feet except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension; and
- d. consider opportunities to incrementally extend and connect local streets in primarily developed areas; and
- e. serve a mix of land uses on contiguous local streets; and
- f. support posted speed limits; and
- g. consider narrow street design alternatives that feature total right-of-way of no more than 46 feet, including pavement widths of no more than 28 feet, curb-face to curb-face, sidewalk widths of at least 5 feet and landscaped pedestrian buffer strips that include street trees; and
- h. limit the use of cul-de-sac designs and closed street systems to situations where topography, pre-existing development or environmental constraints prevent full street extensions.

- 2. For new residential and mixed-use development, all contiguous areas of vacant and primarily undeveloped land of five acres or more shall be identified by cities and counties and the following will be prepared:

A map that identifies possible local street connections to adjacent developing areas. The map shall include street connections at intervals of no more than 660 feet, with more frequent connections in areas planned for mixed use or dense development.

B. Performance Option. For residential and mixed use areas, cities and counties shall amend their comprehensive plans, implementing ordinances and administrative codes, if necessary, to require demonstration of compliance with performance criteria in the following manner. Cities and counties shall develop local street design standards in text or maps or both with street intersection spacing to occur at intervals of no less than eight street intersections per mile except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension. The number of street intersections should be greatest in the highest density 2040 Growth Concept design types. Local street designs for new developments shall satisfy the following additional criteria:

- 1. Performance Criterion: minimize local traffic on the regional motor vehicle system, by demonstrating that local vehicle trips on a given regional facility do not exceed the 1995 arithmetic median of regional trips for facilities of the same motor vehicle system classification by more than 25 percent.
- 2. Performance Criterion: everyday local travel needs are served by direct, connected local street systems where: (1) the shortest motor vehicle trip over public streets from a local origin to a collector or greater facility is no more than

twice the straight-line distance; and (2) the shortest pedestrian trip on public right-of-way is no more than one and one-half the straight-line distance.

Section 4. Transportation Performance Standards

A. Alternative Mode Analysis

1. Mode split will be used as the key regional measure for transportation effectiveness in the Central City, Regional Centers and Station Communities. Each jurisdiction shall establish an alternative mode split target (defined as non-Single Occupancy Vehicle person-trips as a percentage of all person-trips for all modes of transportation) for each of the central city, regional centers and station communities within its boundaries. The alternative mode split target shall be no less than the regional targets for these Region 2040 Growth Concept land use components to be established in the Regional Transportation Plan.
2. Cities and counties which have Central City, regional centers and station communities shall identify actions which will implement the mode split targets. These actions should include consideration of the maximum parking ratios adopted as part of Title 2; Section 2: Boulevard Design of this Title; and transit's role in serving the area.

B. Motor Vehicle Congestion Analysis for Mixed Use Areas

1. Level-Of-Service (LOS) is a measurement of the use of a road as a share of designed capacity. The following table using Level Of Service may be incorporated into local comprehensive plans and implementing ordinances to replace current methods of determining motor vehicle congestion on regional facilities; if a city or county determines that this change is needed to permit Title 1, Table 1 capacities in the Central City, Regional Centers, Town Centers, Main Streets and Station Communities:

General Congestion Performance Standards (using LOS)*

	Preferred	Acceptable	Exceeds
Mid-Day one-hour	C or better	D	E or worse
Peak two-hour	E/E or better	F/E	F/F or worse

*Level-of-Service is determined by using either the latest edition of the Highway Capacity Manual (Transportation Research Board) or through volume to capacity ratio equivalencies as follows: LOS C = .8 or better; LOS D = .8 to .9; LOS = .9 to 1.0; and LOS F = greater than 1.0. A copy of the Level of Service Tables from the Highway Capacity Manual is attached as Exhibit A.

2. Accessibility. If a congestion standard is exceeded as identified in 4.B.1, cities and counties shall evaluate the impact of the congestion on regional accessibility using the best available methods (quantitative or qualitative). If a determination is made

746 by Metro that the congestion negatively impacts regional accessibility, local
747 jurisdictions shall follow the congestion management procedures identified in 4.C.
748 below.

- 749 3. The identified function or the identified capacity of a road may be significantly
750 affected by planning for Central City, Regional Centers, Town Centers, Main
751 Streets and Station Communities. Cities and counties shall amend their
752 transportation plans and implementing ordinances to either change or take actions as
753 described in Section 4.C., below, to preserve the identified function and identified
754 capacity of the road, if necessary, to retain consistency between allowed land uses
755 and planning for transportation facilities.

756 **C. Congestion Management**

757 For a city or county to amend their comprehensive plan to add a significant capacity
758 expansion to a regional facility, the following actions shall be applied, unless the capacity
759 expansion is included in the Regional Transportation Plan:

- 760 1. To address Level of Service, the following shall be implemented:
- 761 a. Transportation system management techniques
 - 762 b. Corridor or site-level transportation demand management techniques
 - 763 c. Additional motor vehicle capacity to parallel facilities, including the
764 consideration of a grid pattern consistent with connectivity standards
765 contained in Title 6 of this plan
 - 766 d. Transit service improvements to increase ridership
- 767 2. To address preservation of motor vehicle function:
- 768 a. Implement traffic calming
 - 769 b. Change the motor vehicle function classification
- 770 3. To address or preserve existing street capacity, implement transportation
771 management strategies (e.g. access management, signal interties, lane
772 channelization)

773 If the above considerations do not adequately and cost-effectively address the problem,
774 capacity improvements may be included in the comprehensive plan.

775 **D. Motor Vehicle Congestion Analysis Outside of Mixed Use Areas**

776 Outside of Central City, Regional Centers, Town Centers, Main Streets and Station
777 Communities, and where cities and counties have not elected to use the General Congestion
778 Performance Standards in subsection 4.B of this Title:

- 779 1. The identified function or the identified capacity of a road may be significantly
780 affected by implementation of this functional plan. Cities and counties shall
781 amend their transportation plans and implementing ordinances to change or take
782 actions as described in Section 4.C., below, to preserve the identified function and
783 identified capacity of the facility, if necessary, to retain consistency between
784 allowed land uses and planning for transportation facilities.
- 785 2. The congestion performance standard for designated state highways as identified
786 in the 1990 Oregon Highway Plan shall be the peak and off-peak performance
787 criteria in Appendix F of the 1992 Oregon Transportation Plan.
- 788 3. The congestion performance standard for arterials of regional significance
789 identified at Figure 4-2 of Chapter 4 of the 1992 Regional Transportation Plan
790 should be the peak and off-peak performance criteria in Chapter 1, Section D of
791 the 1992 Regional Transportation Plan.
- 792 4. Congestion level of service standards are not required for all other roads.
- 793 5. If the congestion performance for a road is exceeded or the identified function or
794 identified capacity is inconsistent with land uses, cities and counties shall apply
795 the congestion management actions identified in 4.C.1-3, above. If these actions
796 do not adequately and cost-effectively address the problem, capacity
797 improvements may be included in the comprehensive plan."

Level of Service (LOS) Definitions for Freeways, Arterials and Signalized Intersections

LOS	FREEWAYS (average travel speed assuming 70 mph design speed)	ARTERIALS (average travel speed assuming a typical free flow speed of 40 mph)	SIGNALIZED INTERSECTIONS (stopped delay per vehicle)	TRAFFIC FLOW CHARACTERISTICS
A	Greater than 60 mph Average spacing: 22 car-lengths	Greater than 35 mph	Less than 5 seconds; most vehicles do not stop at all	Virtually free flow; completely unimpeded Volume/capacity ratio less than or equal to .60
B	57 to 60 mph Average spacing: 13 car-lengths	28 to 35 mph	5.1 to 15 seconds; more vehicles stop than for LOS A	Stable flow with slight delays; reasonably unimpeded Volume/capacity ratio .61 to .70
C	54 to 57 mph Average spacing: 9 car-lengths	22 to 28 mph	15.1 to 25 seconds; individual cycle failures may begin to appear	Stable flow with delays; less freedom to maneuver Volume/capacity ratio of .71 to .80
D	46 to 54 mph Average spacing: 6 car-lengths	17 to 22 mph	25.1 to 40 seconds; individual cycle failures are noticeable	High density but stable flow Volume/capacity ratio of .81 to .90
E	30 to 46 mph Average spacing: 4 car-lengths	13 to 17 mph	40.1 to 60 seconds; individual cycle failures are frequent; poor progression	Operating conditions at or near capacity; unstable flow Volume/capacity ratio of .91 to 1.00
F	Less than 30 mph bumper-to-bumper	Less than 13 mph	Greater than 60 seconds; not acceptable for most drivers	Forced flow, breakdown conditions Volume/capacity ratio of greater than 1.00
>F	Demand exceeds roadway capacity, limiting volume that can be carried and forcing excess demand onto parallel routes and extending the peak period			Demand/capacity ratios of greater than 1.10

Source: 1985 Highway Capacity Manual (A through F Descriptions)
Metro (>F Description)

799 **TITLE 7: AFFORDABLE HOUSING**

800 **Section 1. Intent**

801 RUGGO Objective 17 requires that Metro adopt a "fair share" strategy for meeting the housing
802 needs of the urban population in cities and counties based on a subregional analysis. A "fair
803 share" strategy will include (1) a diverse range of housing types available within cities and
804 counties inside the UGB; (2) specific goals for low and moderate rate housing to ensure that
805 sufficient and affordable housing is available to households of all income levels that live or have
806 a member working in each jurisdiction; (3) housing densities and costs supportive of adopted
807 public policy for the development of the regional transportation system and designated centers
808 and corridors; and (4) a balance of jobs and housing within the region and subregions.

809 Title 1 of this functional plan requires cities and counties to change their zoning to accommodate
810 development at higher densities in locations supportive of the transportation system. Two other
811 parts of the "fair share" strategy are addressed here: (1) encouraging use of tools identified to
812 improve availability of sufficient housing affordable to households of all income levels; and (2)
813 encouraging manufactured housing to assure a diverse range of available housing types.

814 **Section 2. Recommendations to Improve Availability of Affordable Housing**

815 According to HUD standards, housing is affordable if the resident is paying no more than one-
816 third of their income for housing. Data from the federally required County Consolidated Plans
817 clearly demonstrate that there exists a shortage of housing affordable to low and moderate
818 income people in most, if not all, cities and counties. Metro recommends that cities and counties
819 increase their efforts to provide for the housing needs of households of all income levels that live
820 or have a member working in each jurisdiction and that they consider implementation of some or
821 all of the following tools and approaches to facilitate the development of affordable housing:

- 822 A. Donate buildable tax-foreclosed properties to nonprofit organizations or
823 governments for development as mixed market affordable housing.
- 824 B. Develop permitting process incentives for housing being developed to serve
825 people at or below 80% of area median income.
- 826 C. Provide fee waivers and property tax exemptions for projects developed by
827 nonprofit organizations or governments serving people at or below 60% of area
828 median income.
- 829 D. Create a land banking program to enhance the availability of appropriate sites for
830 permanently affordable housing.
- 831 E. Consider replacement ordinances that would require developers of high-income
832 housing, commercial, industrial, recreational or government projects to replace
833 any affordable housing destroyed by these projects.

834 F. Consider linkage programs that require developers of job-producing development,
835 particularly that which receives tax incentives, to contribute to an affordable
836 housing fund.

837 G. Commit locally controlled funds, such as Community Development Block Grants,
838 Strategic Investment Program tax abatement funds or general fund dollars, to the
839 development of permanently affordable housing for people at or below 60% of
840 area median income.

841 H. Consider inclusionary zoning requirements, particularly in tax incentive
842 programs, for new development in transit zones and other areas where public
843 investment has contributed to the value and developability of land.

844 **Section 3. Recommendations to Encourage Manufactured Housing**

845 State housing policy requires the provision of manufactured housing inside all Urban Growth
846 Boundaries as part of the housing mix with appropriate placement standards. The following are
847 recommended to reduce regulatory barriers to appropriately placed manufactured housing:

848 A. Requirements for a minimum of five acres to develop a manufactured housing
849 park should be reviewed to consider a lesser requirement, or elimination of a
850 minimum parcel and/or lot size entirely.

851 B. Manufactured homes configured as duplexes, triplexes, fourplexes, etc. should be
852 encouraged outside manufactured dwelling parks where zoning densities are
853 consistent with single story development.

854 **TITLE 8: COMPLIANCE PROCEDURES**

855 **Section 1. Compliance Required**

856 All cities and counties within the Metro boundary are hereby required to amend their
857 comprehensive plans and implementing ordinances to comply with the provisions of this
858 functional plan within twenty-four months of the effective date of this ordinance. Metro
859 recommends the adoption of the policies that affect land consumption as soon as possible.

860 **Section 2. Compliance Procedures**

861 A. On or before six months prior to the deadline established in Section 1, cities and counties
862 shall transmit to Metro the following:

- 863 1. An evaluation of their local plans, including public facility capacities and the
864 amendments necessary to comply with this functional plan;
- 865 2. Copies of all applicable comprehensive plans and implementing ordinances and
866 public facility plans, as proposed to be amended;
- 867 3. Findings that explain how the amended city and county comprehensive plans will
868 achieve the standards required in titles 1 through 6 of this functional plan.

869 In developing the evaluation, plan and ordinance amendments and findings, cities and
870 counties shall address the Metro 2040 Growth Concept, and explain how the proposed
871 amendments implement the Growth Concept.

872 B. Exceptions to any of the requirements in the above titles may be granted by the Metro
873 Council, as provided for in the Regional Urban Growth Goals and Objectives, Section
874 5.3, after MPAC review. Requests for an exception should include a city or county
875 submittal as specified in this section. The Metro Council will make all final decisions
876 for the grant of any requested exception.

877 1. Population and Capacity. An exception to the requirement contained in Table 1
878 of Title 1 that the target capacities shall be met or exceeded may be granted based
879 on a submittal which includes, but is not limited to, the following:

- 880 a. A demonstration of substantial evidence of the economic infeasibility to
881 provide sanitary sewer, water, stormwater or transportation facilities to an
882 area or areas; or
- 883 b. A demonstration that the city or county is unable to meet the target
884 capacities listed in Table 1 because substantial areas have prior
885 commitments to development at densities inconsistent with Metro target;
886 or

887
888
889

890
891
892
893
894
895

896
897
898
899

900
901
902
903
904

905
906
907
908
909
910
911
912

913
914
915
916

917
918
919
920
921
922
923
924
925

- c. A demonstration that the dwelling unit and job capacities cannot be accommodated at densities or locations the market or assisted programs will likely build during the planning period.

As part of any request for exception under this subsection, a city or county shall also submit an estimate of the amount of dwelling units or jobs included in the capacity listed in Table 1 that cannot be accommodated; and a recommendation which identifies land that would provide for the unaccommodated capacity located outside the urban growth boundary and near or adjacent to the city or county.

In reviewing any request for exception based on the financial feasibility of providing public services, Metro, along with cities and counties, shall estimate the cost of providing necessary public services and compare those with the estimated costs submitted by the city or county requesting the exemption.

- 2. **Parking Measures.** Subject to the provisions of Title 2, cities or counties may request an exception to parking requirements. Metro may consider a city or county government request to allow areas designated as Zone A to be subject to Zone B requirements upon the city or county establishing that, for the area in question:

- a. There are no existing plans to provide transit service with 20-minute or lower peak frequencies; and
- b. There are no adjacent neighborhoods close enough to generate sufficient pedestrian activity; and
- c. There are no significant pedestrian activity within the present business district; and
- d. That it will be feasible for the excess parking to be converted to the development of housing, commerce or industry in the future.

The burden of proof for a variance shall increase based on the quality and timing of transit service. The existence of transit service or plans for the provision of transit service near a 20-minute or lower peak frequency shall establish a higher burden to establish the need for the exception.

- 3. **Water Quality and Flood Management Areas.** Cities and counties may request areas to be added or deleted from the Metro Water Quality and Flood Management Area based on a finding that the area identified on the map is not a Water Quality and Flood Management Area or a Fish and Wildlife Habitat Conservation Area, as defined in this functional plan. Areas may also be deleted from the map if the city or county can prove that its deletion and the cumulative impact of all deletions in its jurisdiction will have minimal impact on the water quality of the stream and on flood effects. Findings shall be supported by evidence, including the results of field investigations.

926 4. Retail in Employment and Industrial Areas. Subject to the provisions of Title 4,
927 cities and counties may request a change in the Employment and Industrial Areas
928 Map. Metro may consider a city or county request to modify an Employment
929 Area to exempt existing or locally designated retail areas, unacknowledged by the
930 date of this Functional Plan, where they can demonstrate that

931 a. The Employment and Industrial Areas Map included lands within
932 Employment Areas having a substantially developed existing retail area or
933 a locally designated retail area pursuant to a comprehensive plan
934 acknowledged by the date of this Functional Plan which allowed retail
935 uses larger than 60,000 square feet of gross leasable area per building or
936 business; or

937 b. The requested retail area in an Employment Area has been found to be
938 appropriate for an exception based upon current or projected needs within
939 the jurisdiction and the city or county can demonstrate that adequate
940 transportation facilities capacity exists for that retail area.

941 5. Regional Accessibility. Cities or counties may request an exception to the
942 requirements of Title 6, Regional Accessibility, where they can show that a street
943 system or connection is not feasible for reasons of topographic constraints or
944 natural or built environment considerations.

945 C. The Metro Council may grant an extension to time lines under this functional plan if the
946 city or county has demonstrated substantial progress or proof of good cause for failing to
947 complete the requirements on time. Requests for extensions of the compliance
948 requirement in Section 1 of this Title should accompany the compliance transmittal
949 required in Section 2.A. of this Title.

950 D. In addition to the above demonstrations, any city or county request or determination
951 that functional plan policies should not or cannot be incorporated into comprehensive
952 plans shall be subject to the conflict resolution and mediation processes included within
953 the RUGGO, Goal I, provisions prior to the final adoption of inconsistent policies or
954 actions. Final land use decisions of cities and counties inconsistent with functional
955 plan requirements are subject to immediate appeal for violation of the functional plan.

956 E. Compliance with requirements of this plan shall not require cities or counties to violate
957 federal or state law, including statewide land use goals. Conflicting interpretations of
958 legal requirements may be the subject of a compliance interpretation and conflict
959 resolution under RUGGO Objective 5.3.

960 Section 3. Any Comprehensive Plan Change must Comply

961 After the effective date of this ordinance, any amendment of a comprehensive plan or
962 implementing ordinance shall be consistent with the requirements of this functional plan. Metro

963 shall assist cities and counties in achieving compliance with all applicable functional plan
964 requirements. Upon request, Metro will review proposed comprehensive plan and implementing
965 ordinances for functional plan compliance prior to city or county adoption.

966 **Section 4. Compliance Plan Assistance**

967 A. Any city or county may request of Metro a compliance plan which contains the
968 following:

969 1. An analysis of the city or county comprehensive plan and implementing
970 ordinances, and what sections require change to comply with the performance
971 standards.

972 2. Specific amendments that would bring the city or county into compliance with the
973 requirements of Sections 1 to 8, if necessary.

974 B. Cities and counties must make the request within four months of the effective date of this
975 ordinance. The request shall be signed by the highest elected official of the jurisdiction.

976 C. Metro shall deliver a compliance plan within four months of the request date. The
977 compliance plan shall be a recommendation from the Executive Officer. The compliance
978 plan shall be filed with the Metro Council two weeks before it is transmitted, for possible
979 review and comment.

980 **Section 5. Functional Plan Interpretation Process**

981 The Metro Council may initiate a functional plan interpretation through whatever procedures it
982 deems appropriate on its own motion with or without an application. After the effective date of
983 this ordinance, Metro shall provide a process for cities and counties required by this functional
984 plan to change their plans to seek interpretations of the requirements of this functional plan. The
985 process shall provide, in addition to other requirements that the Metro Council may establish,
986 (1) the applications must state the specific interpretation requested; (2) the Executive Officer
987 shall seek comment from interested parties, review the application and make an interpretation to
988 the Metro Council; (3) the Executive Officer's interpretation shall be final unless appealed to the
989 Metro Council by the applicant or any citizen or party who presented written comments to the
990 Executive Officer; (4) the Metro Council may also on its own motion review an Executive
991 Officer interpretation before it becomes final.

992 **Section 6. Citizen Review Process**

993 A citizen who has presented written or oral testimony to a city or county on an issue of
994 application of this functional plan may petition the Metro Council to initiate a functional plan
995 interpretation or conflict resolution action. After hearing the citizen petition and any response
996 from any affected cities and counties, the Metro Council may, as it considers necessary, decide
997 to:

- 998 1. Interpret the functional plan; or
- 999 2. Initiate a functional plan interpretation using the process in Section 5 of this Title; or
- 1000 3. Initiate the conflict resolution process of RUGGO Objective 5.3 for any apparent or
1001 potential inconsistencies between comprehensive plans and this functional plan; or
- 1002 4. Postpone consideration of the issue to an appropriate time when compliance with a
1003 functional plan requirement is scheduled.

1004 **Section 7. Enforcement**

- 1005 A. Prior to a final decision to amend a comprehensive plan or implementing ordinance, a
1006 city or county determination that a requirement of this functional plan should not or
1007 cannot be implemented may be subject to a compliance interpretation and the conflict
1008 resolution process provided for in RUGGO, Goal I at the request of the city or county.
- 1009 B. City or county actions to amend a comprehensive plan or implementing ordinance in
1010 violation of this functional plan at any time after the effective date of this ordinance shall
1011 be subject to appeal or other legal action for violation of a regional functional plan
1012 requirement, including but not limited to reduction of regional transportation funding and
1013 funding priorities.
- 1014 C. Failure to amend comprehensive plans and implementing ordinances as required by
1015 Section 1 of this Title shall be subject to any and all enforcement actions authorized by
1016 law.

1017 **TITLE 9: PERFORMANCE MEASURES**

1018 **Section 1. Intent**

1019 In order to monitor progress in implementation of this functional plan, and in order to implement
1020 Objective 10 of RUGGO, Metro shall establish performance measures related to the achievement
1021 and expected outcome resulting from the implementation of this functional plan.

1022 **Section 2. Performance Measures Adoption**

1023 A. Within three months of the adoption of this functional plan, the Metro Executive Officer
1024 shall submit to the Council the Executive Officer's recommendations for:

- 1025 1. Performance measures to be used in evaluating the progress of the region in
1026 implementation of this functional plan; and
- 1027 2. Policies for corrective action should the performance measures indicate that the
1028 goals contained in the functional plan are not being achieved.

1029 In developing these performance measures and policies, the Executive Officer shall use the best
1030 technology available to Metro, and shall, in addition, submit the current and recent historic levels
1031 for the proposed performance measures.

1032 B. The Council, after receiving advice and comment from the Metropolitan Policy Advisory
1033 Committee, shall adopt a list of performance measures that will be used to monitor and
1034 evaluate this functional plan. The performance measures will be evaluated at least by
1035 regional level, by Growth Concept design types, by regional and town center market
1036 areas, and by jurisdiction. The performance measures shall include a biennial goal for the
1037 next six years, and shall be accompanied by policies for adjusting the regional plans
1038 based on actual performance.

1039 C. The performance measures shall include, but shall not be limited to the following:

- 1040 1. Amount of land converted from vacant to other uses, according to jurisdiction,
1041 Growth Concept design type, and zoning;
- 1042 2. Number and types of housing constructed, their location, density, and costs,
1043 according to jurisdiction, Growth Concept design type, and zoning;
- 1044 3. The number of new jobs created in the region, according to jurisdiction, Growth
1045 Concept design type, and zoning;
- 1046 4. The amount of development of both jobs and housing that occurred as
1047 redevelopment or infill, according to jurisdiction, Growth Concept design type,
1048 and zoning;

- 1049 5. The amount of land that is environmentally sensitive that is permanently
1050 protected, and the amount that is developed;
- 1051 6. Other measures that can be reliably measured and will measure progress in
1052 implementation in key areas.
- 1053 7. Cost of land based on lot prices according to jurisdiction, Growth Concept design
1054 type, and zoning; and according to redeveloped and vacant classifications.
- 1055 8. The average vacancy rate for all residential units.

1056 D. Use of the performance measures

- 1057 1. The performance measures will contain both the current level of achievement, and
1058 the proposed level necessary to implement this functional plan and achieve the
1059 Metro 2040 Growth Concept adopted in the Regional Urban Growth Goals and
1060 Objectives (RUGGO). The performance measures will be used to evaluate and
1061 adjust, as necessary, Metro's functional plans, Urban Growth Boundary, and other
1062 regional plans.
- 1063 2. By March 1 of every other year beginning March 1, 1999, the Executive Officer
1064 shall report to the Council an assessment of the regional performance measures,
1065 and recommend corrective actions, as necessary, consistent with the Metro
1066 Council's policies.
- 1067 3. The Council shall refer the recommendations to the Hearing Officer, who shall
1068 hold a hearing to review the data in the Executive Officer's report on the
1069 performance measures, and gather additional data from any interested party. The
1070 Hearing officer shall review all of the information presented on the performance
1071 measures. The complete record of information, findings of fact, and a
1072 recommendation shall be forwarded to the Council by the Hearing Officer.
- 1073 4. The Council shall hold a hearing on the record, adopt findings of fact, and take
1074 any necessary corrective action by September 1 of the year.

See Glossary for Urban Growth Management Functional Plan definitions

Table 1 - Target Capacity for Housing and Employment Units - Year 1994 to 2017

City or County	Dwelling Unit Capacity ¹	Job Capacity	Mixed Use Areas	
			Dwelling Unit Capacity	Job Increase
Beaverton	15,021	25,122	9,019	19,084
Cornelius	1,019	2,812	48	335
Durham	262	498	0	0
Fairview	2,921	5,689	635	2,745
Forest Grove	2,873	5,488	67	628
Gladstone	600	1,530	20	140
Gresham	16,817	23,753	3,146	9,695
Happy Valley	2,030	1,767	52	245
Hillsboro	14,812	58,247	9,758	20,338
Johnson City	168	180	0	0
King City	182	241	55	184
Lake Oswego	3,353	8,179	446	3,022
Maywood Park	27	5	0	0
Milwaukie	3,514	7,478	2,571	6,444
Oregon City	6,157	8,185	341	2,341
Portland	70,704	158,503	26,960	100,087
River Grove	(15)	41	0	0
Sherwood	5,010	8,156	1,108	3,585
Tigard	6,073	14,901	981	8,026
Troutdale	3,789	5,570	107	267
Tualatin	3,635	9,794	1,248	2,069
West Linn	2,577	2,114	0	594
Wilsonville	4,425	15,030	743	4,952
Wood Village	423	736	68	211
Clackamas County ³	19,530	42,685	1,661	13,886
Multnomah County	3,089	2,381	0	0
Washington County ³	54,999	52,578	13,273	25,450
	243,993	461,633		

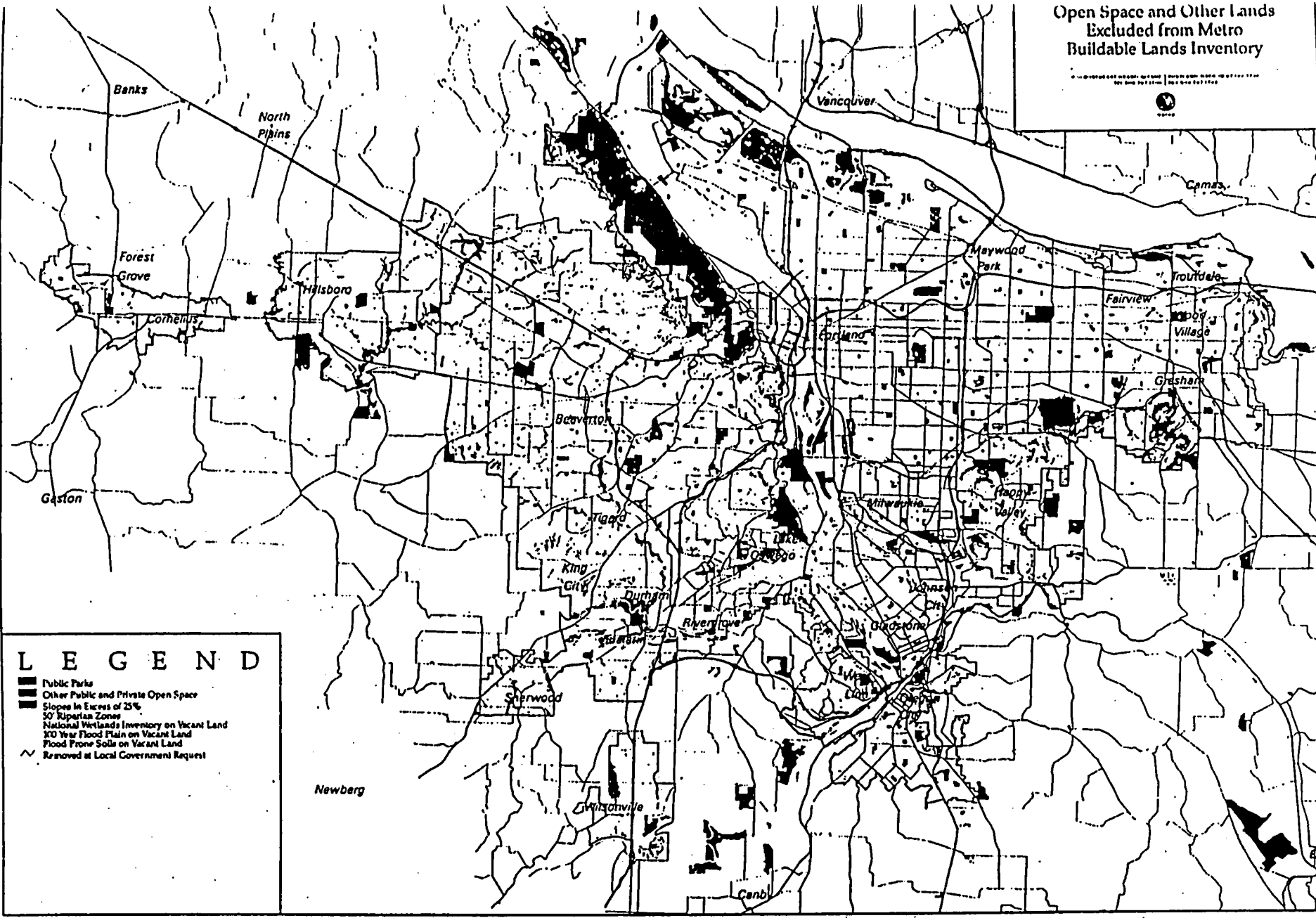
¹ Based on Housing Needs Analysis. Applies to existing city limits as of June, 1996. Annexations to cities would include the city assuming responsibility for Target Capacity previously accommodated in unincorporated county.

² Mixed use areas are: Central City - about 250 persons per acre; regional centers - about 60 ppa; town centers 40 ppa.; station communities - about 45 ppa.; main streets - about 39 ppa.

³ Standards apply to the urban unincorporated portion of the county only. At the request of cities, Metro may also supply targets for planning areas for cities in addition to the existing boundary targets cited above.

Open Space and Other Lands
Excluded from Metro
Buildable Lands Inventory

© 1997 METRO
METRO PLANNING AND REVENUE DEPARTMENT
1000 EAST 17TH AVENUE, SUITE 1000
DENVER, COLORADO 80202



LEGEND

- Public Parks
- Other Public and Private Open Space
- Slopes in Excess of 25%
- 50' Riparian Zones
- National Wetlands Inventory on Vacant Land
- 100 Year Flood Plain on Vacant Land
- Flood Prone Soils on Vacant Land
- ~ Removed at Local Government Request

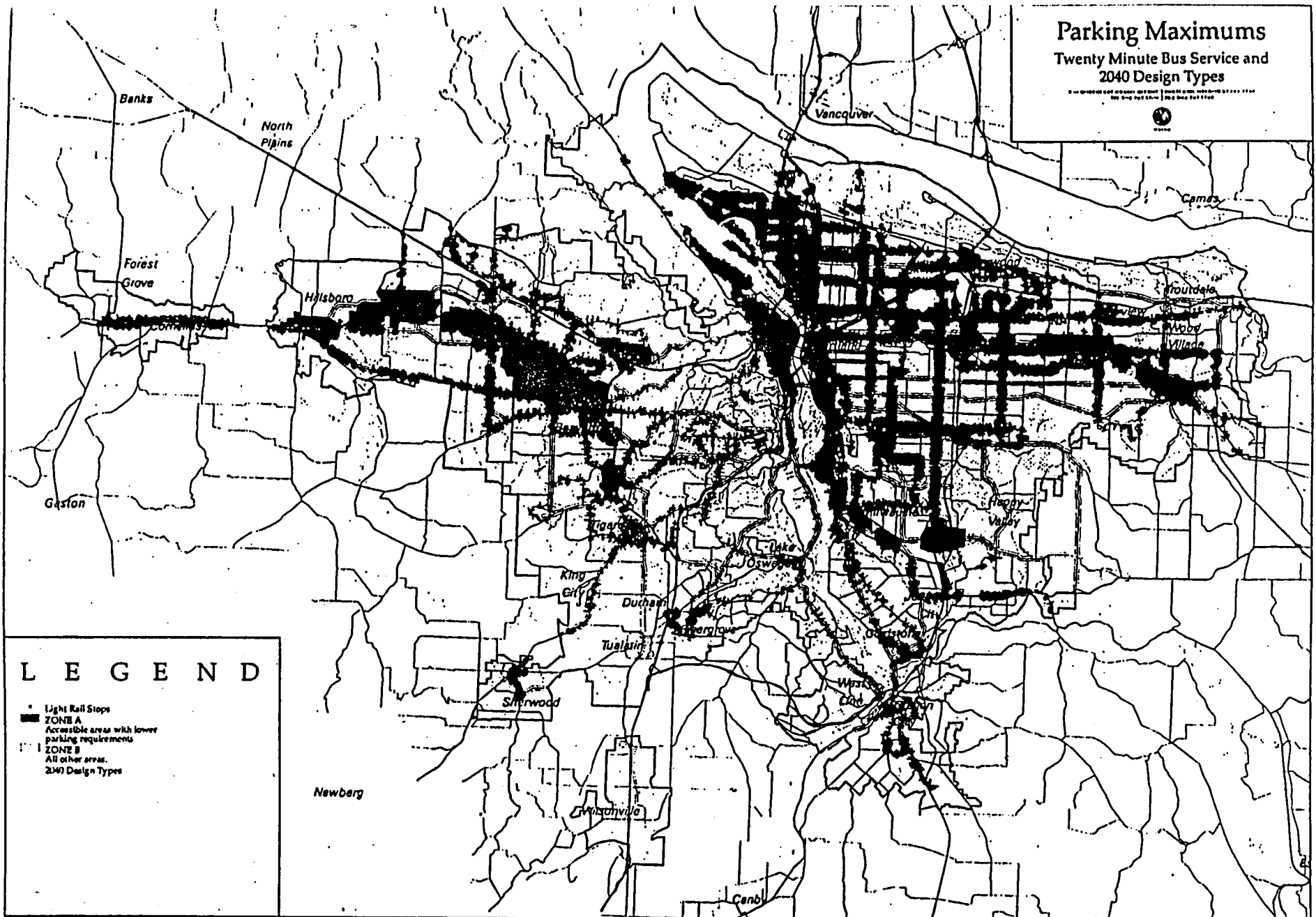
Table 2 - Regional Parking Ratios (parking ratios are based on spaces per 1,000 sq ft of gross leasable area unless otherwise stated)			
Land Use	Minimum Parking Requirements (See) Central City Transportation Management Plan for downtown Portland stds)	Maximum Permitted Parking - Zone A:	Maximum Permitted Parking Ratios - Zone B:
	Requirements may Not Exceed	Transit and Pedestrian Accessible Areas ¹	Rest of Region
General Office (includes Office Park, "Flex-Space", Government Office & misc. Services) (gsf)	2.7	3.4	4.1
Light Industrial Industrial Park Manufacturing (gsf)	1.6	None	None
Warehouse (gross square feet; parking ratios apply to warehouses 150,000 gsf or greater)	0.3	0.4	0.5
Schools: College/ University & High School (spaces/# of students and staff)	0.2	0.3	0.3
Tennis Racquetball Court	1.0	1.3	1.5
Sports Club/Recreation Facilities	4.3	5.4	6.5
Retail/Commercial, including shopping centers	4.1	5.1	6.2
Bank with Drive-In	4.3	5.4	6.5
Movie Theater (spaces/number of seats)	0.3	0.4	0.5
Fast Food with Drive Thru	9.9	12.4	14.9
Other Restaurants	15.3	19.1	23
Place of Worship (spaces/seats)	0.5	0.6	0.8
Medical/Dental Clinic	3.9	4.9	5.9
Residential Uses			
Hotel/Motel	1	none	none
Single Family Detached	1	none	none
Residential unit, less than 500 square feet per unit, one bedroom	1	none	none
Multi-family, townhouse, one bedroom	1.25	none	none
Multi-family, townhouse, two bedroom	1.5	none	none
Multi-family, townhouse, three bedroom	1.75	none	none

¹ Ratios for uses not included in this table would be determined by cities and counties. In the event that a local government proposes a different measure, for example, spaces per seating area for a restaurant instead of gross leasable area, Metro may grant approval upon a demonstration by the local government that the parking space requirement is substantially similar to the regional standard.

Parking Maximums

Twenty Minute Bus Service and
2040 Design Types

© 1997 METRO TRANSIT AUTHORITY
ALL RIGHTS RESERVED



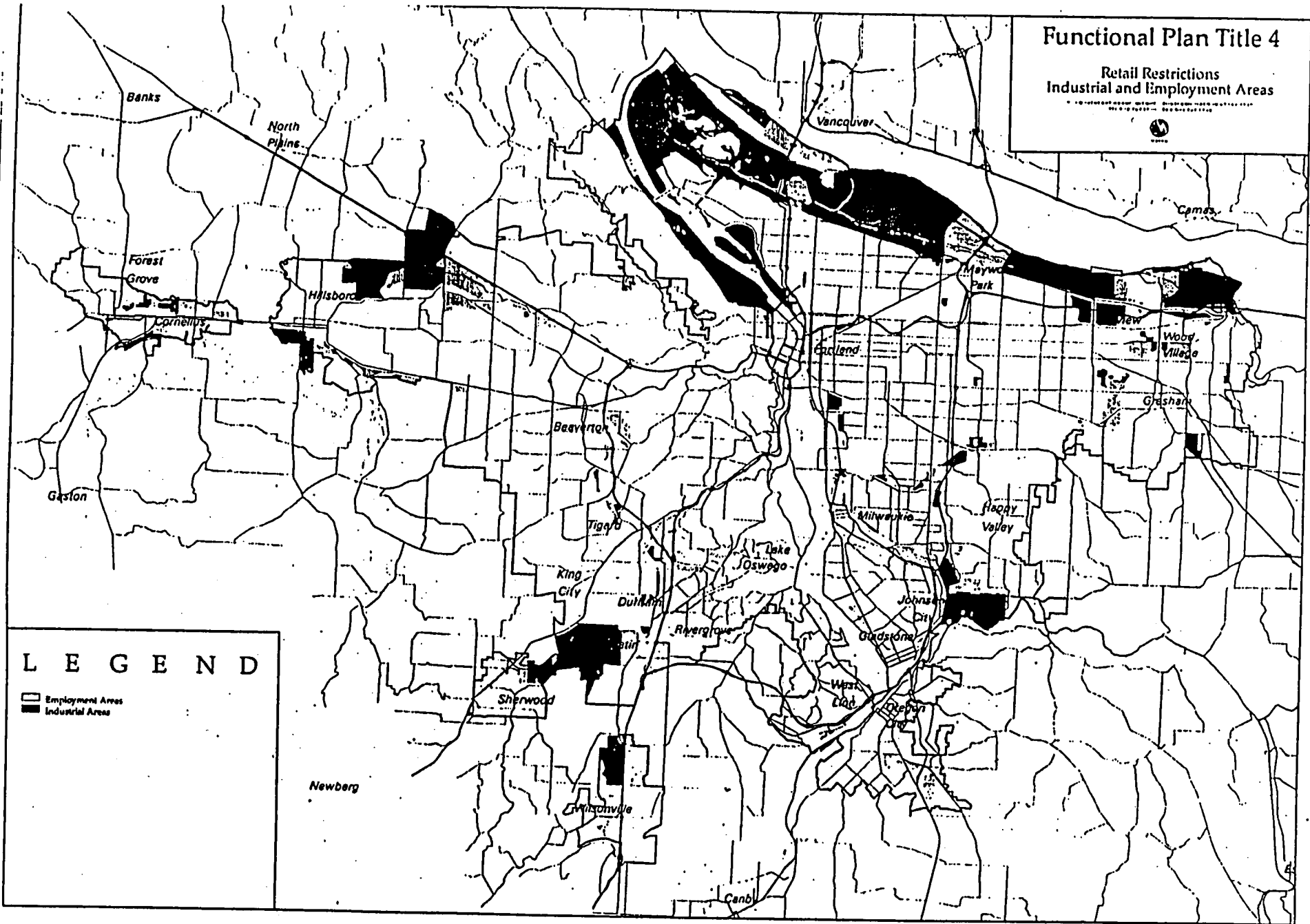
LEGEND

- Light Rail Stops
- ZONE A
Accessible areas with lower
parking requirements
- ▨ ZONE B
All other areas.
- 2040 Design Types

Functional Plan Title 4

Retail Restrictions Industrial and Employment Areas

PLANNING DEPARTMENT
CITY OF PORTLAND, OREGON

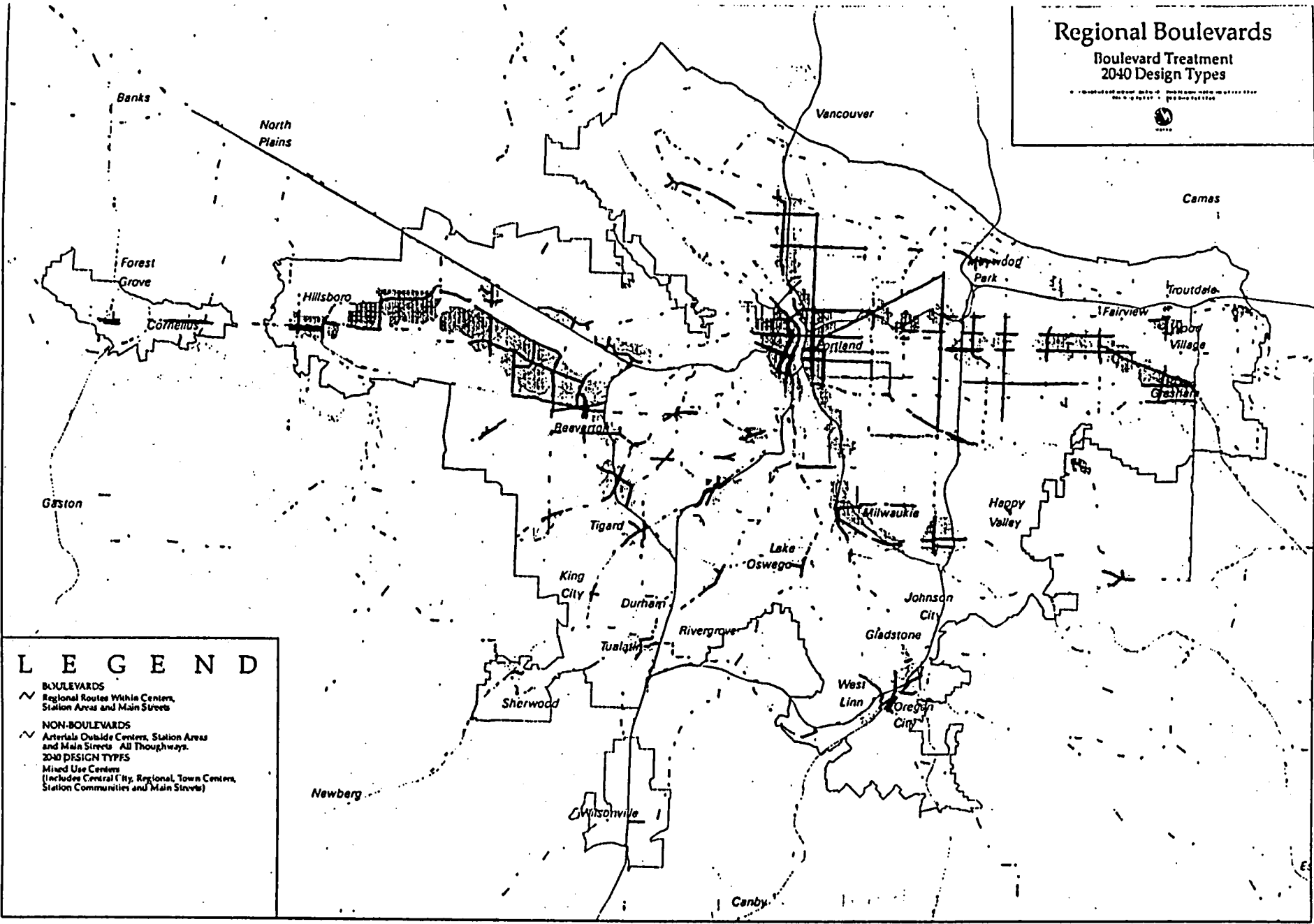


LEGEND

- Employment Areas
- Industrial Areas

Regional Boulevards

Boulevard Treatment
2040 Design Types



LEGEND

- BOULEVARDS**
- Regional Routes Within Centers, Station Areas and Main Streets
- NON-BOULEVARDS**
- Arterials Outside Centers, Station Areas and Main Streets All Throughways
- 2040 DESIGN TYPES**
- Mixed Use Centers (includes Central City, Regional, Town Centers, Station Communities and Main Streets)

Appendix B: Metro Code 3.01 Concerning Urban Reserves and Expansion of the UGB

Adopted by the Metro Council by Ordinance 96-655E, March 6, 1997

Amendments to Metro Code 3.01

Title Section is amended as follows:

"URBAN GROWTH BOUNDARY AND URBAN RESERVE PROCEDURES

SECTIONS TITLE

- 3.01.005 Purpose
- 3.01.010 Definitions
- 3.01.012 Urban Reserves
- 3.01.015 Legislative Amendment Procedures"

Section 3.01.005(a), sentence is added at end as follows:

"... other than Goals 2 and 14. This chapter is also established to be used for the establishment and management of Urban Reserves, pursuant to OAR 660-21-000 to 660-21-100 and RUGGO Objective 22."

Section 3.01.005(c) is added as follows:

(c) The objectives of the Urban Reserves are to:

- (1) Identify sufficient land suitable for urbanization sufficient to accommodate the forecast needs for a 30 to 50 year interval, reevaluated at least every 15 years;
- (2) Limit the areas which are eligible to apply for inclusion to the Urban Growth Boundary consistent with ORS 197.298, and protect resource lands outside the urban reserve areas;
- (3) Protect lands designated as urban reserves for their eventual urbanization, and insure their efficient urbanization consistent with the 2040 Growth Concept, the RUGGOs and the Urban Growth Management Functional Plan;
- (4) Provide for coordination between cities, counties, school districts, and special districts for planning for the urban reserve areas;
- (5) Ensure a smooth transition to urban development by planning for general governance, public facilities, land uses, and planning for financing the capital needs of the urban development."

Section 3.01.010(z) is amended as follows:

"(z) "Urban reserve" means an area adjacent to the present UGB defined to be a priority location for any future UGB amendments when needed. Urban reserves are defined as the land likely to be needed including all developable land inside the current urban growth boundary, for a 30 to 50 year period."

Section 3.01.010 is amended to add an additional term and definition as follows:

"(e) 'First Tier Urban Reserves' means those urban reserves to be first urbanized because they can be most cost-effectively provided with urban services by affected cities and service districts as so designated and mapped in a Metro Council ordinance."

"(y) 'Special land need' means a specific type of identified land needed which complies with Goal 14, Factors 1 and 2 that cannot be reasonably accommodated on first tier urban reserve land."

Section 3.01.012 is added as follows:

3.01.012 Urban Reserve Areas

(a) Purpose

The purpose of this section is to comply with ORS 197.298 by identifying lands designated urban reserve land by Metro as the first priority land for inclusion in the Metro Urban Growth Boundary.

(b) Amount of Land Required

- (1) The areas designated as urban reserves shall be sufficient to accommodate expected urban development for a 30 to 50 year period, including an estimate of all potential developable and redevelopable land in the urban area.
- (2) Metro shall estimate the capacity of the urban reserves consistent with the procedures for estimating capacity of the urban area as defined in Section 3.01.010.
- (3) The minimum residential density to be used in calculating the need for urban reserves, estimating the capacity of the areas designated as urban reserves and required in concept plans shall be at least 10 dwelling units per net developable acre.
- (4) Metro shall designate the amount of urban reserves estimated to accommodate the forecast need.
- (5) Metro may designate a portion of the land required for urban reserves in order to phase designation of urban reserves.

(c) Mapped Urban Reserves

- (1) Metro has designated as urban reserve areas those lands indicated on the 2040 Growth Concept map as part of the Regional Urban Growth Goals and Objectives.
- (2) Urban growth boundary amendments shall include only land designated as urban reserves unless designated urban reserve lands are inadequate to meet the need. If land designated as urban reserves is inadequate to meet the need, the priorities in ORS 197.298 shall be followed.

- (3) Within 1 year of Metro Council adoption of the urban reserve ordinance, the Metro Council shall modify the Metro 2040 Growth Concept to designate regional design types consistent with the Metro 2040 Growth Concept for all designated urban reserves.

(d) First Tier

First tier urban reserves shall be included in the Metro Urban Growth Boundary prior to other urban reserves unless a special land need is identified which cannot be reasonably accommodated on first tier urban reserves.

(e) Urban Reserve Plan Required

A conceptual land use plan and concept map which demonstrates compliance with the RUGGO and the 2040 Growth Concept design types and any applicable functional plan provisions shall be required for all major amendment applications and legislative amendments of the urban growth boundary including at least the following, when applicable:

- (1) Provision for either annexation to a city and any necessary service districts at the time of the final approval of the urban growth boundary amendment consistent with 3.01.065 or an applicable city-county planning area agreement which requires at least the following:
 - (A) City or county agreement to adopt comprehensive plan provisions for the lands added to the urban growth boundary which comply with all requirements of urban reserve plan conditions of the urban growth boundary approval;
 - (B) City and county agreement that lands added to the urban growth boundary shall be rezoned for urban development only upon annexation or agreement for delayed annexation to the city and any necessary service district identified in the approved Concept Plan or incorporation as a new city; and
 - (C) County agreement that, prior to annexation to the city and any necessary service districts, rural zoning that ensures a range of opportunities for the orderly, economic, and efficient provision of urban services when these lands are included in the urban growth boundary remains in place until city annexation and the adoption of urban zoning.
- (2) Notwithstanding (1) above, the Metro Council may approve a major or legislative amendment to the urban growth boundary if the proposed amendment is required to assist the region to comply with the 2040 Growth Concept or to assist the region, a city or county in demonstrating compliance with statute, rule, or statewide goal requirements for land within the urban growth boundary. These requirements include HB 2709, ORS 197.303, the statewide planning goals and Regional Urban Growth Goals and Objectives. An urban services agreement consistent with ORS 195.065 shall be required as a condition of approval for any amendment under this subsection.
- (3) The areas of Urban Reserve Study Areas #11, 14 and 65 are so geographically distant from existing city limits that annexation to a city is difficult to achieve. If the county and affected city and any

necessary service districts have signed an urban service agreement or an urban reserve agreement coordinating urban services for the area, then the requirements for annexation to a city in (1)(B) and (1)(C) above shall not apply.

- (4) Provision for residential densities of at least 10 dwelling units per net developable residential acre.
- (5) Demonstrable measures that will provide a diversity of housing stock that will fulfill needed housing requirements as defined by ORS 197.303. Measures may include, but are not limited to, implementation of recommendations in Title 7 of the Urban Growth Management Functional Plan.
- (6) Demonstration of how residential developments will include, without public subsidy, housing affordable to households with incomes at or below area median incomes for home ownership and at or below 80% of area median incomes for rental as defined by U.S. Department of Housing and Urban Development for the adjacent urban jurisdiction. Public subsidies shall not be interpreted to mean the following: density bonuses, streamlined permitting processes, extensions to the time at which systems development charges (SDCs) and other fees are collected, and other exercises of the regulatory and zoning powers.
- (7) Provision for sufficient commercial and industrial development for the needs of the area to be developed and the needs of adjacent land inside the urban growth boundary consistent with 2040 Growth Concept design types.
- (8) A conceptual transportation plan consistent with the Regional Transportation Plan, and consistent with protection of natural resources as required by Metro functional plans.
- (9) Identification, mapping and a funding strategy for protecting areas from development due to wildlife habitat protection, water quality enhancement and mitigation, and natural hazards mitigation. A natural resource protection plan to protect fish and wildlife habitat, water quality enhancement areas and natural hazard areas shall be completed as part of the comprehensive plan and zoning for lands added to the urban growth boundary prior to urban development. The plan shall include cost estimates to implement a strategy to fund resource protection.
- (10) A conceptual public facilities and services plan, including rough cost estimates for the provision of sewer, water, storm drainage, transportation, fire and police protection facilities and parks, including financing strategy for those costs.
- (11) A conceptual school plan which provides for the amount of land and improvements needed for school facilities. Estimates of the need shall be coordinated among affected school districts, the affected city or county, and affected special districts consistent with the procedures in ORS 195.110(3), (4) and (7).
- (12) An Urban Reserve Plan map showing, at least, the following, when applicable:

- (A) Major roadway connections and public facilities;
 - (B) Location of unbuildable lands including but not limited to steep slopes, wetlands, floodplains and riparian areas;
 - (C) General locations for commercial and industrial lands;
 - (D) General locations for single and multi-family housing;
 - (E) General locations for public open space, plazas and neighborhood centers; and
 - (F) General locations or alternative locations for any needed school, park or fire hall sites.
- (13) The urban reserve plan shall be coordinated among the city, county, school district and other service districts, including a dispute resolution process with an MPAC report and public hearing consistent with RUGGO Objective 5.3. The urban reserve plan shall be considered for local approval by the affected city or by the county, if subsection (3), above, applies in coordination with any affected service district and/or school district. Then the Metro Council shall consider final adoption of the plan.

Section 3.01.015(d) is added as follows:

"(d) Metro shall consult with the appropriate city, county, school and service districts to identify lands inside first tier urban reserves which are the most capable of being served by extension of service from existing service providers for the purpose of preparing concept plans in advance for any short term need for inclusion of additional lands in the urban growth boundary."

Section 3.01.015(d) is amended as follows:

"(e) Legislative amendment decisions shall be accompanied by findings explaining why the UGB amendment complies with applicable state law and statewide goals as interpreted by section 3.01.020 and subsequent appellate decisions and including applicable concept plans and maps demonstrating consistency with RUGGO including the 2040 Growth Concept and compliance with any applicable functional plan provisions."

Section 3.01.020(a) is amended as follows:

"The purpose of this section is to address ORS 197.298, Goals 2 and 14 of the statewide planning goals and RUGGO . . . Compliance with this section shall constitute compliance with ORS 197.298, statewide planning Goals 2 and 14 and the Regional Urban Growth Goals and Objectives."

Section 3.01.020(b), last sentence, is amended as follows:

"For legislative amendments, if need has been addressed, the district shall demonstrate that the priorities of ORS 197.298 have been followed and that the recommended site was better than alternative sites, balancing factors 3 through 7."

Section 3.01.025(a) is amended as follows:

"(a) All major amendments shall be solely upon lands designated in urban reserves, when designated consistent with 3.01.012. All major amendments shall demonstrate compliance with the following:

- (1) The criteria in section 3.01.030 of this Code as well as the procedures in OAR 660-18-000;
- (2) Notice of public hearings for major amendments as described in section 3.01.050;
- (3) Public hearings procedures as described in sections 3.01.055 through 3.01.065;
- (4) the urban reserve plan requirements in section 3.01.012(e); and
- (5) Final action on major amendments shall be taken as described in section 3.01.070."

Section 3.01.030(a) is amended as follows:

"The purpose of this section is to address ORS 197.298, Goals 2 and 14 of the statewide planning goals and RUGGO . . . and further define ORS 197.298, Goals 2 and 14 . . . compliance with ORS 197.298, statewide planning Goals 2 and 14 and the Regional Urban Growth Goals and Objectives."

Section 3.01.030(b) is amended by adding the following sentence prior to 3.01.030(b)(1):

"Demonstration that the priorities of ORS 197.298 have been followed is required in addition to the application of factors 3 through 7."

Section 3.01.040(b), (c) are added as follows:

"(b) The district shall attach the approved urban reserve plan and map required at 3.01.012(e) as conditions of approval to assure compliance of developed uses with the 2040 Growth Concept and any applicable functional plan provisions.

(c) The district may determine that certain conditions of approval are so important to inclusion of land into the urban growth boundary that if those conditions are not met that the urban growth boundary approval may be revoked automatically or by action of the district."

Section 3.01.065(f) is amended as follows:

"(f) When the council acts to approve in whole or in part a petition by requiring annexation to a city and/or service district(s) and Tri-Met and whenever a petition includes land outside the district:

- (1) Such action shall be by resolution expressing intent to amend the UGB if and when the affected property is annexed to the district within six months of the date of adoption of the Resolution.
- (2) The council shall take final action, as provided for in paragraphs (c) and (d) of this section, within 30 calendar days of notice that all required annexations to a city, service district(s) and the district have been approved."

Appendix C: Future Vision

I HEREBY CERTIFY THAT THE FOREGOING IS A COMPLETE AND EXACT COPY OF THE ORIGINAL THEREOF.

Wally Ross
Clerk of the Metro Council

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ADOPTING)	ORDINANCE NO. 95-604A
A FUTURE VISION FOR THE)	
REGION)	Introduced by Councilor
)	Susan McLain

WHEREAS, The voters of the Metro region adopted the 1992 Metro Charter in November, 1992; and

WHEREAS, The Charter provides for the creation of a Future Vision Commission and adoption of a Future Vision no later than July 1, 1995; and

WHEREAS, The Charter calls for the Future Vision to be "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:" and

WHEREAS, The Charter further requires the Future Vision to be "a long-term, visionary outlook for at least a 50-year period" which is to address, "(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;" and

WHEREAS, The Future Vision is not a regulatory document; and

WHEREAS, Resolution 93-1755, adopted on February 23, 1993, established the framework and appointing authorities for creating the Future Vision Commission; and

WHEREAS, Future Vision Commission members were appointed by adoption of Resolution 93-1801, by MPAC appointment, and by actions of the Governors of Oregon and Washington; and

WHEREAS, The Future Vision Commission met for over eighteen months, reviewed available materials, heard from many authorities, and commissioned four reports on jobs, carrying capacity, settlement patterns, and education; and

WHEREAS, The Future Vision Commission issued its final report on March 4, 1995, which deals with Charter-required matters as well as providing valuable suggestions for how to achieve the Vision; and

WHEREAS, The Future Vision is to be part of an ongoing regional planning process; and

WHEREAS, The Council and Future Vision Commission held a series of public hearings throughout the region to receive public testimony on the Commission's final report, in order to give the Council guidance in adopting the region's Future Vision; now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

1. Pursuant to Section 5(1) of the 1992 Metro Charter, the Future Vision for the region, attached as Exhibit A and including the Future Vision map, is adopted.

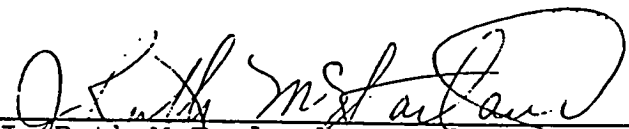
2. Ideas and suggestions from the Future Vision Commission for implementing the Future Vision and achieving its goals are attached as Exhibit B.

3. The final report of the Future Vision Commission, attached as Exhibit C, is accepted.

4. The Future Vision is not a regulatory document, and has no effect that would allow court or agency review of it. The Regional Framework Plan required by the Charter shall describe its relationship to the Future Vision. The Regional Framework Plan is not required by the Charter or by this ordinance to comply with or conform to the Future Vision.

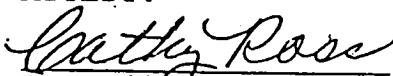
5. The Future Vision shall be completely reviewed and revised no later than July 1, 2010, in a manner prescribed by ordinance and in conformance with the terms of the Metro Charter.

ADOPTED by the Metro Council this 15 day of June, 1995.



J. Ruth McFarland, Presiding Officer

ATTEST:



Recording Secretary

1 EXHIBIT A

2 FUTURE VISION

3 Our ecological and economic region goes beyond Metro's boundaries and stretches from
4 the Cascades to the Coast Range, and from Longview to Salem. Any vision for a territory
5 as large and diverse as this must be regarded as both ambitious and a work-in-progress: it
6 is a first step in developing policies, plans, and actions that serve our bi-state region and all
7 its people.

8 While Metro recognizes that it has no control over surrounding jurisdictions and is not
9 responsible for the provision of public safety and other social services, the ability to
10 successfully manage growth within this region is dependent on and impacts each of these.

11 Future Vision is mandated by Metro's 1992 Charter. It is not a regulatory document;
12 rather it is a standard against which to gauge progress toward maintaining a livable region.

13 It is based on a number of core values essential to shaping our future. As a region:

- 14 • We value taking purposeful action to advance our aspirations for this region,
15 realizing that we should act to meet our needs today in a manner that does not
16 limit or eliminate the ability of future generations to meet their needs and enjoy
17 this landscape we are privileged to inhabit.
- 18 • We value the greatest possible individual liberty in politics, economics, lifestyle,
19 belief, and conscience, with the understanding that this liberty cannot be fully
20 realized unless accompanied by shared commitments for community, civic
21 involvement, and a healthy environment.
- 22 • We value our regional identity and sense of place, and celebrate the identity and
23 accomplishments of our urban neighborhoods and suburban and rural communities.
- 24 • We value vibrant cities that are an inspiration and a crucial resource for
25 commerce, cultural activities, politics, and community building.

- 26 • We value a healthy economy that provides stable family-wage jobs. We recognize
27 that our economic well-being depends on unimpaired and sustainable natural
28 ecosystems, and suitable social mechanisms to ensure dignity and equity for all, with
29 compassion and adequate income for those in need.
- 30 • We value the conservation, restoration, and preservation of natural and historic
31 landscapes.
- 32 • We value a life close to nature incorporated in the urban landscape.
- 33 • We value nature for its own sake, and recognize our responsibility as stewards of
34 the region's natural resources.
- 35 • We value meeting the needs of our communities through grass-roots efforts in
36 harmony with the collective interest of our regional community.
- 37 • We value participatory decision making which harnesses the creativity inherent in
38 a wide range of views.
- 39 • We value a cultural atmosphere and public policies that will ensure that every
40 child in every community enjoys the greatest possible opportunities to fulfill his or
41 her potential in life; as a high priority, every child, regardless of income, has the
42 opportunity to engage in the literary, visual, and performing arts in community
43 centers.

44 REGIONAL VISION STATEMENT

45 EACH INDIVIDUAL:

46 As inhabitants of this bi-state region, we are committed to the development of each
47 individual as a productive, effective member of society. This region must make clear and
48 unambiguous commitments to each individual in order that we all may have a vibrant,
49 healthy place to live. We seek the full participation of individuals in the prosperity of this
50 region, accompanied by acceptance of their responsibility for stewardship of the
51 community and region. Our vision statements for Each Individual are:
52

53 • CHILDREN - In 2045, the welfare of children is of critical importance to our well-being.
54 Creating and sustaining public and private initiatives that support family life are among
55 our highest priorities.

56 • EDUCATION - In 2045, education, in its broadest definition, stands as the core of our
57 commitment to each other. Life-long learning is the critical ingredient that enables the
58 residents of this region to meet the responsibilities of citizenship, to gain pleasure from a
59 rich cultural and social life, and to adapt to new ideas, new technologies, and changing
60 economic conditions. Our commitment to education is a commitment to equipping all
61 people with the means not only to survive, but to prosper.

62 • PARTICIPATION - In 2045, all residents, old and young, rich and poor, men and
63 women, minority and majority, are supported and encouraged to be well-informed and
64 active participants in the civic life of their communities and the bi-state region. Ours is a
65 region that thrives on interaction and engagement of its people to achieve community
66 objectives.

67
68 **OUR SOCIETY:**

69 The ability to work together is the hallmark of great communities and flourishing societies.
70 Our vision statements for Our Society are:

71 • VITAL COMMUNITIES - In 2045, communities throughout the bi-state region are
72 economically vital, socially healthy and responsive to the needs of their residents.
73 Government initiatives and services have been developed to empower individual
74 communities to actively meet the needs of their residents. The economic life of the
75 community is inseparable from its social and civic life.

76 • SAFETY - In 2045, personal safety within communities and throughout the region is
77 commonly expected as well as a shared responsibility involving citizens and all government
78 agencies. Our definition of personal safety extends from the elimination of prejudice to the

79 physical protection of life and property from criminal harm, to hazard mitigation and
80 preparation for and response to natural disasters.

81 • **ECONOMY** - In 2045, our bi-state regional economy is dynamic and diverse, with
82 urban and rural economies linked in a common frame. Planning and governmental action
83 have helped create conditions that support the development of family wage jobs in
84 accessible centers throughout the region.

85 • **CIVIC LIFE** - In 2045, citizens embrace responsibility for sustaining a rich, inclusive
86 civic life. Political leadership is valued and recognized for serving community life.

87 • **DIVERSITY** - In 2045, our communities are known for their openness and acceptance.
88 This region is distinguished by its ability to honor diversity in a manner that leads to civic
89 cohesion.

90 • **ROOTS** - In 2045, our history serves us well, with the lessons of the past remembered
91 and incorporated in our strategies for the future. Knowledge of our cultural history helps
92 ground social and public policy in the natural heritage we depend on and value.

93 **OUR PLACE:**

94 We are committed to preserving the physical landscape of the region, acknowledging the
95 settlement patterns that have developed within it, and supporting the economy that
96 continues to evolve. We live in a varied and beautiful landscape. Our place sits at the
97 confluence of great rivers—the Columbia, Lewis, Sandy, and the Willamette and its
98 tributaries, which dominate the landscape. This is a region of water, volcanic buttes, and
99 forest-clad mountains and hills. Our vision statements for Our Place are:

100 • **A LIFE IN NATURE** - In 2045, this region is recognized as a unique ecosystem, known
101 for the intelligent integration of urban and rural development which seeks to:

102 – improve air and water quality, and increase biodiversity;

103 – protect views of Mt. Hood, Mt. St. Helens, Mt. Rainier, Mt. Adams, Mt.
104 Jefferson, and other Cascade and coastal peaks;
105 – provide Greenspaces and parks within walking distance of every household;
106 – assure a close and supportive relationship among natural resources, landscape, the
107 built environment, and the economy of the region; and
108 – restore ecosystems, complemented by planning and development initiatives that
109 preserve the fruits of those labors.

110 • **RURAL LAND** - In 2045, rural land shapes our sense of place by keeping our cities
111 separate from one another, protecting natural resource lands and supporting viable farm
112 and forest resource enterprises, and keeping our citizens close to nature, farms, forests, and
113 other resource lands and activities.

114 • **DOWNTOWNS** - In 2045, downtown Portland continues to serve an important
115 defining role for the entire region. Historic urban centers such as Ridgefield, Camas,
116 Vancouver, Gresham, St. Helens, Beaverton, Hillsboro, Lake Oswego, Oregon City,
117 Molalla, Woodburn, and others throughout our bi-state region are an important part of
118 sub-regional identity. In addition, investment, both public and private, is focused in our
119 historic and our new urban centers throughout the region. This pattern of investment and
120 renewal continues to be an important part of our strategy for building and maintaining
121 healthy communities.

122 • **VARIETY IN OUR COMMUNITIES AND NEIGHBORHOODS** - In 2045, our
123 region is composed of numerous distinct communities. Each community provides a wide
124 variety of healthy, appealing, and affordable housing and neighborhood choices. They are
125 physically compact and have distinct identities and boundaries. Public space exists in every
126 community, and serves as the stage for a rich and productive civic dialogue.

127 • **WALKING** - In 2045, residents of this region can shop, play, and socialize by walking
128 or biking within their neighborhoods. Walking, biking, or using transit are attractive

129 alternatives for a wide range of trips within neighborhoods, between important regional
130 centers, and outside of the urban area. This region is known for the utility of its non-auto
131 transportation alternatives.

132 • LINKAGES - In 2045, goods, materials, and information move easily throughout the
133 bi-state region. Manufacturing, distribution, and office employment centers are linked to
134 the transportation and communication systems in a comprehensive and coordinated
135 manner.

136 • EQUITY - In 2045, the tradeoffs associated with growth and change have been fairly
137 distributed throughout the region. Our commitment to managing growth is matched by
138 an equal commitment to social equity for the communities of today and tomorrow. The
139 true environmental and social cost of new growth has been paid by those, both new to the
140 region and already present, receiving the benefits of that new growth.

141 • GROWTH MANAGEMENT - In 2045, growth in the region has occurred, but it has
142 been managed so our citizens have maintained or improved their quality of life. Our
143 objective has been and still is to live in great communities, not merely big ones. Our
144 desire for separate communities is reflected in the Future Vision Map which depicts
145 settlement patterns. Carrying capacity and sustainability concepts help measure and track
146 progress toward maintaining a desired quality of life but they can not be used to set
147 population limits. Our successes in balancing our region's growth with its livability come
148 from a commitment to ongoing reviews of our past achievements combined with
149 appropriate actions to maintain and enhance our quality of life. The Values and Vision
150 Statements herein should be used to guide the establishment of new communities.

151 SUGGESTIONS:

152 Clearly, Metro has a critical role to play as planner, convener, monitor, and leader.
153 However, as in the past, the success we achieve in the future will be a collaborative
154 accomplishment. We have an unparalleled opportunity to create an environment of

155 consensus and predictability in the region for what Metro's planning and policy making
156 ought to accomplish. The full report of the Future Vision Commission contains
157 suggestions for acting on each vision statement.

158 Perhaps the most critical implementing step is Metro's commitment to a continuing
159 dialogue with the citizens of our greater region to address 21st century problems and issues.
160 An annual review of the region will allow us to promote, lead, and engage citizens in an
161 ongoing discussion of our future. The relevant question is not "when" carrying capacity
162 will be exceeded, but "how" we will collectively restore, maintain, and enhance the
163 qualities of the region.

164 As a region, our aspiration is to match the spectacular nature of our landscape with an
165 equally spectacular and regular civic celebration of our sense of the region—truly our sense
166 of place. For it is only through the creation of a shared and far-reaching culture of this
167 place that our accomplishments will match our aspirations. Future Vision is a work in
168 progress – a challenge to future generations to think ahead and make decisions.

Appendix D: Parks, Open Space and Recreation

Metro has taken significant steps to establish a regional system of parks, natural areas, open spaces, trails and greenways. However, there are additional measures that can be taken to build on this progress.

- Metro needs to develop an adequate and stable funding base in order to better fulfill its responsibilities for assembling and managing significant components of the publicly owned portion of the Regional System. A long range funding needs analysis should be considered by the Metro Council. The Council may then begin policy discussions as to how best to address funding needs of the Regional System.
- Metro should work with other park providers to better define roles and responsibilities related to the protection and management of the regional system. Cooperation is essential for effective protection and management of the regional system.
- The Open Spaces Acquisition Refinement Process began to articulate specific protection objectives and boundaries for a subset of regionally significant natural areas and open spaces, and interconnecting trail, greenway, and wildlife corridors. This process must be completed for all priority areas identified in the *Metropolitan Greenspaces Master Plan* and will involve a variety of inventories and technical studies as identified in the Implications Section of this chapter.
- The *Urban Growth Management Functional Plan* began the process of developing performance standards to protect water quality in the region's rivers and streams and for floodplain management. A model zoning ordinance is being prepared to apply some standards to local comprehensive plans and implementing regulations. These will complement the effort to protect the Regional System. However, additional work is needed to assure healthy aquatic systems and compliance with state and federal water quality standards. The Watershed Management and Regional Water Quality Chapter of this Framework Plan should be reviewed for a discussion of these issues.
- The *Urban Growth Management Functional Plan* also calls for protection of Fish and Wildlife Habitat Conservation Areas. However, relevant provisions are referenced in the *Functional Plan* as recommendations to local governments, not as requirements. Much work also needs to be done to define the boundaries of Fish and Wildlife Habitat Conservation Areas and to develop performance standards for their protection. Among the required work projects is a Regional Goal 5 Inventory and Economic, Social, Environmental and Energy (ESEE) consequences analysis. There is a very direct relationship between this component of the *Functional Plan* and protection of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways.

In order to implement the policies listed in Chapter 3, the following actions will be included in future Metro programs and/or implemented through joint agreements between Metro and local parks, open space and recreational providers and/or through a Metro functional plan which may include recommendations and requirements for local implementation.

The following is a discussion of policy implementation and regulation issues related to the provision of parks, open spaces, and recreational facilities by Metro and local governments.

Inventory and Identification of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways- Policy 3.1, 3.1.1, 3.1.2, 3.1.3

Metro will lead the effort to inventory and identify regionally significant parks, natural areas, open spaces, trails and greenways. This inventory will be based on scientific and social data, and will result in the identification of areas that protect water quality, fish, wildlife, and botanical diversity, and provide opportunities for natural resource dependent recreation. To accomplish this Metro shall:

1. Update the regional natural areas inventory and mapping project every five to ten years, including field verification and data collection as resources allow.
2. Use local park master plans and comprehensive land use plans to assist in the inventory process.
3. Identify corridors that provide or have the potential to provide connections between sites for wildlife and people
4. Inventory surplus government lands and tax-foreclosed properties within each jurisdiction on a regular basis and evaluate their potential for inclusion in the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways, or local park systems.
5. Identify portions of the region deficient in natural areas and identify opportunities for major restoration programs in these deficient areas. Criteria to be used in assessing restoration potential include:

Scientific Criteria

- Feasibility of ecological restoration
- Connectivity potential
- Sustainability of ecosystem relative to adjacent land use
- Significance of contribution to other beneficial environmental functions (i.e., water quantity/quality, floodplain protection)

Social Criteria

- Public accessibility.
- Linkages to regional and local trails systems
- Community support for projects
- Consistency with land use plans
- Ownership

Local government cooperation will be needed to help Metro identify and inventory the regional system of parks, natural areas, open spaces, trails and greenways. It is recommended that local Governments:

1. Assist in identifying corridors to link the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways.
2. Assist in the development and application of criteria to determine Regional Significance of existing locally owned parks, natural areas, trails and greenways.

Protection of a Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways- Policy 3.2, 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.2.8

Metro will protect the regional system by adopting a functional plan and by using existing and new tools. Metro shall:

- Adopt a functional plan which:
 - identifies and delineates the components of a regional system of interconnected Parks, Natural Areas, Open Spaces, Trails and Greenways for wildlife and people (the "Regional System"). Both scientific and social criteria will be considered in selecting components.
 - identifies and delineates natural corridors which link components of the regional system.
 - provides guidance to local governments to achieve basic regulatory protection of privately owned components of the Regional System. Subject to the Oregon Forest Practice Statues, an Urban Forest Practices Ordinance should be considered as a strategy which could protect natural resources values while allowing sustained harvest from privately owned components of the regional system.
- Include a regional trails component in the Regional Transportation Plan.
- Work with local governments, citizens, and landowners to protect and acquire components of the regional system through a variety of strategies including:
 - Development and implementation of programs that support purchase of land in fee simple or conservation easement interest, encourage gifts and dedication of land, enable transfer of ownership or management authority

including but not limited to surplus and tax foreclosed properties, mitigation projects, reclaimed and restored sites.

- Advocate for state and federal funding support.
- Develop and distribute educational materials and provide opportunities for owners of components of the regional system to learn about and pursue appropriate land management practices and stewardship on a voluntary basis. Provide technical assistance related to natural resource management issues as financial and staff resources allow
- Develop and implement incentives which encourage protection of natural resources on components of the regional system including restoration and enhancement grants, public recognition, tax reduction options and transfer of development rights.
- Advocate for the protection, restoration and enhancement of regionally significant natural, cultural and recreational resources at the local, state and federal level.
- From time-to-time convene focus groups to generate and/or update urban designs and best management practices that protect components of the regional system.

To protect the regional system, local government will be encouraged to acknowledge Metro's functional plan and local Governments shall:

- Acknowledge the regional system by amending local comprehensive plans and related land use ordinances.
- Seek to avoid fragmentation of components of the regional system by transportation and utility rights of way and easements.

Local Governments are encouraged to:

- Identify and establish local systems of parks, natural areas, open spaces and trails which connect neighborhoods to components of the regional system.
- Assist with the identification of components of the regional system.
- Participate in acquisition, education and incentive efforts.
- Assist and coordinate land dedications through local development processes.

Local Governments and Metro should:

- Encourage and/or initiate an effort to revive, update, invigorate and implement the vision of the Willamette River Greenway.

Management of Publicly-Owned Portions of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways. Policy 3.3, 3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5.

Metro plans to acquire and manage the regional system of parks, natural areas, open spaces, trails, and greenways. To manage the regional system, Metro will need to prepare master plans/ management plans to balance protection and provide recreational and educational opportunities for citizens. To accomplish these goals Metro shall:

- Select and prioritize, with the assistance of local governments and citizens, components of the Regional System appropriate for acquisition.
 - Criteria which will be considered in natural area site selection include: habitat value, contributions to water quality protection, unique natural features, relative rarity of ecosystem, size, restoration potential, linkage to other components of the regional system, scenic resources, public accessibility, recreation potential, education potential, public support, partnership potential, cultural resource value, imminent loss of opportunity.
 - Criteria which will be considered in trail selection include: inclusion in local comprehensive plans and parks master plans, potential to create a loop trail, linkage among components of the Regional System and to inter-regional trails, closing gaps in the Regional System, length and continuity of trail, value to wildlife, local support, imminent loss of opportunity, abandoned rail corridors, access to river routes.
- Provide local governments the opportunity to acquire components of the Regional System with their financial resources.
- Provide local governments and other governments agencies the opportunity to transfer ownership and/or management responsibility of components of the Regional system to Metro.
- Develop and adopt master/management plans to guide development, operation, maintenance and other related activities at Metro owned or managed components of the Regional System prior to opening for formal public use. Master/Management plans shall seek to balance the protection and enhancement of natural resource values with the provision of facilities and programs for public use and enjoyment. The *State Comprehensive Outdoor Recreation Plan* shall be considered in the development of master/management plans.
- Provide, primarily, natural resource-dependent recreation and education opportunities at components of the Regional System. Examples of natural resource-dependent recreation and education include:
 - hiking, walking, jogging
 - biking, mountain biking
 - picnicking (group/family)
 - motorized boating, water skiing
 - non-motorized boating (canoe, raft, kayak, etc.)

- angling
- wildlife viewing
- camping (group/family)
- photography
- golf
- cultural/environmental education and interpretive programs

Examples of potential facilities include:

- trails (surfaced and natural)
 - picnic areas (including shelters)
 - roads/parking
 - sanitation facilities
 - water, electric, and other utilities
 - boat ramps/boat rental/marina
 - accessible angling docks
 - wildlife viewing blinds
 - campgrounds
 - golf courses
 - related maintenance, support and public safety facilities
 - nature centers/public information kiosks
 - historic structures
- Determine the funding needs, required funding levels, size, timing and source of funding to support Metro managed components of the Regional System. A stable funding source should be identified and implemented to supplement user fee and entrepreneurial resources and to support acquisition, restoration, planning, development, operation, maintenance, incentives, and educational programs.
 - Encourage and pursue gifts of land, cash, other assets, services, labor, etc. to support the protection, acquisition, development, operation and maintenance of components of the Regional System. The creation of a regional parks and greenspaces foundation should be pursued to facilitate this effort.
 - Pursue public and private grants and advocate for the creation and funding of grant and aid programs for local and regional parks at the state and federal level to supplement local and regional investments.
 - Provide financial assistance to local governments and other appropriate organizations for acquisition, restoration and development of local systems of parks, natural areas, open space, greenways and trails and related programs that support or compliment the Regional System, as financial resources allow.

Local Governments shall:

- Determine the propriety of continued ownership and management of components of the Regional System or the acquisition of additional privately owned components of the Regional System with local financial resources.
- Develop and adopt master/management plans to guide development, operation, maintenance and other related activities at local government managed components of the Regional System prior to opening for formal public use. Master/Management plans shall seek to balance the protection and enhancement of natural resource values with the provision of facilities and programs for public use and enjoyment. The *State Comprehensive Outdoor Recreation Plan* shall be considered in the development of master/management plans.
- Provide, primarily, natural resource-dependent recreation and education opportunities at local government owned and managed components of the Regional System.
- Determine the funding needs and levels as well as size, timing and source of funding mechanisms which support components of the Regional System owned and managed by local governments.
- Consider partnerships and cooperative efforts with Metro to enhance protection, acquisition, planning, development, operations and maintenance efficiencies, management consistency, funding equity and public use/enjoyment of components of the Regional System.

The Provision of Community and Neighborhood Parks, Open Spaces, Trails and Recreation Programs. Policy 3.5, 3.5.1, 3.5.2.

Metro recognizes local governments and park and recreational districts as the primary provider of community parks, neighborhood parks, recreational centers, sports fields and associated recreational programs and locally significant open space, trails and greenways for their citizens. Local Governments and park and recreation districts are encouraged to:

- Develop, adopt, and implement Master Plans for local systems of community parks, neighborhood parks, open spaces, greenways, recreation centers, sports fields and associated recreation programs which:
 - are responsive to citizen needs and desires
 - result in the provision of a park, trail, sports field, recreation center or open space within one half of one mile of all residents.
 - consider the State Comprehensive Outdoor Recreation Plan (SCORP)
 - link neighborhoods with the regional system
- Pursue, secure and appropriate sufficient funds to implement programs to plan, acquire, develop, operate and maintain local systems of parks, open space, greenways, recreation centers, sports fields and associated recreation programs.

- Require new developments to protect important natural resources and dedicate lands to provide recreational opportunities consistent with local system master plans.
- Design park and recreation facilities in such a way as to facilitate their security and policing.
- Work cooperatively with school districts to fulfill recreation needs for such facilities as sports fields, indoor basketball, volleyball, and other courts and facilities, swimming pools, and joint use of facilities for recreation, day care and community center programs.
- Encourage or require private open space and recreational facilities in high density residential projects, mixed use projects and major employment complexes to meet a portion of the open space and recreational needs of residents, employees and visitors.
- Encourage water districts, utility companies and other public agencies to provide for appropriate recreational uses of their respective properties and right-of-ways.

Metro will create a parks deficiency map, and provide technical assistance to local cooperators. Subject to financial and staff resource availability and as requested, Metro shall:

- Generate and provide information related to park deficient areas.
- Provide technical advice to local park providers related to the protection, restoration or enhancement of natural resources at parks, open spaces, trails or greenways.
- Provide supplemental financial resources for acquisition and development of local park projects which support or complement the Regional System.
- Provide grants for restoration and environmental education projects.

The Participation of Citizens in Environmental Education, Planning and Stewardship Activities. Policy 3.6, 3.6.1, 3.6.2.

Citizens play a key role in Metro's role in protection and management of the Regional System of Parks, Natural Areas, Open Spaces, Trails and Greenways. To facilitate public participation, Metro shall:

- Provide opportunities for public involvement in issues related to the selection, acquisition, development and management of the regional system.
- Implement a volunteer services plan to encourage individuals, groups, and businesses to participate in the restoration, enhancement, operations and maintenance of resources, facilities, programs and events.
- Appoint and staff a Regional Parks and Greenspaces Advisory Committee composed of citizens from throughout the region.
- Develop, promote and deliver programs which enhance citizens' understanding, appreciation, use and enjoyment of natural, cultural and recreational resources.

- Host special events which enhance public use and enjoyment of regional system components.

Utilize a variety of media to convey information to citizens regarding the regional system, and associated facilities, benefits, programs and events.

Metro encourages local Governments and park and recreation districts to involve citizens in the planning, protection and management of the local park systems. They are encouraged to:

- Provide ongoing opportunities for public information sharing and citizen involvement in development and implementation of local system master plans, facility operations and recreational programming.

Local Governments and Metro should:

- Work together to assure that citizens are aware of the benefits of parks and recreation, and recognized as comparable in importance to public safety, education, sanitation, water supply, land use and transportation services.

Appendix E: Water Supply

In order to implement the regional aspects of the Regional Water Supply Plan, the Metro Council may consider adopting requirements consistent with, but not necessarily limited to elements of the Regional Water Supply System.

Requirements that could be considered by the Metro Council could include:

- **Water Conservation requirements**
- **Land Use regulations for protection of regionally significant well fields or underground storage facilities**
- **Regulations concerning the sequencing of regionally significant new supply and transmission lines**

Appendix F: Watershed Management and Water Quality

Requirements to protect regionally significant watershed and water quality will be completed as a functional plan in order to protect regionally significant Goal 5 resources.

These requirements have yet to be developed.

Appendix G: Natural Hazards

Requirements to protect regionally significant features from natural disasters will be completed as a functional plan.

These requirements have yet to be developed.

Appendix H: Model Codes

As mandated by its Charter, Metro is developing model codes. These land use zone codes are for use by cities and counties of the region, but are not required. They are intended to show ways to implement elements of the Regional Framework Plan, especially the Growth Concept and the Urban Growth Management Functional Plan. The model codes will be available in a workbook format and include the following:

- **Mixed Use Zone**
- **Generic Single-Family Residential Zone**
- **Generic Multi-Family Zone**
- **Generic Commercial Zone**
- **Generic Employment Zone**
- **Generic Industrial Zone**
- **Land Division Code**

For each of the zones, a description of applicable Metro requirements will be included as well as purpose and intent ideas, suggestions for permitted and conditional uses and potential development standards, emphasizing clear and objective standards.

These codes are not available at this time, but are expected to be in draft form by June, 1997.

Glossary

Glossary

Accessibility. The amount of time required to reach a given location or service by any mode of travel.

Access Management. The principles, laws and techniques used to control access off and onto streets, roads and highways from roads and driveways. One of the primary purposes of controlling access is to reduce conflicts between motor vehicles, pedestrians and bicyclists. Examples of access management include limiting or consolidating driveways, selectively prohibiting left turn movements at and between intersections and using physical controls such as signals and raised medians.

Air Quality Conformity. This term refers to the Clean Air Act Amendments of 1990 which require the metropolitan region to use computer modeling to document that regionally significant transportation projects, if built, would result in (1) automotive emissions lower than those estimated to have occurred in 1990; (2) lower emissions than would result without building the project; and (3) total emissions lower than the "mobile source budget" adopted in the regional air quality maintenance plan.

Alternative Transportation Mode. This term refers to all passenger modes of travel except for single occupancy vehicle, including bicycling, walking, public transportation, carpooling and vanpooling.

Advanced Traffic Management System (ATMS). This term refers to traffic management techniques that use computer processing and communications technologies to optimize performance of motor vehicle, freight and public transportation systems. ATMS is a subset of Intelligent Transportation System (ITS) technologies and must be addressed as one of the sixteen ISTEA planning factors.

Americans With Disabilities Act (ADA) of 1990. Civil rights legislation enacted by the U.S. Congress that mandates the development of a plan to address discrimination and equal opportunity for disabled persons in employment, transportation, public accommodation, public services and telecommunications. Tri-Met's ADA transportation plan outlined the requirements of the ADA as applied to Tri-Met services, the deficiencies of the existing services when compared to the requirements of the new Act and the remedial measures necessary to bring Tri-Met and the region into compliance with the Act. Metro, as

the region's Metropolitan Planning Organization (MPO) is required to review Tri-Met's ADA Paratransit Plan annually and certify that the plan conforms to the Regional Transportation Plan. Without this certification, Tri-Met cannot be found to be in compliance with the ADA. ADA also affects the design of pedestrian facilities being constructed by local governments.

Areas and Activities of Metropolitan 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.

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.

Bicycle. A vehicle having two tandem wheels, a minimum of 14" in diameter, propelled solely by human power, upon which a person or persons may ride. A three-wheeled adult tricycle is considered a bicycle. In Oregon, a bicycle is legally defined as a vehicle. Bicyclists have the same right to the roadways and must obey the same traffic laws as the operators of other vehicles.

Bicycle Facilities. A general term denoting improvements and provisions made to accommodate or encourage bicycling, including parking facilities, all bikeways and shared roadways not specifically designated for bicycle use.

Bicycle Network. A system of connected bikeways that provide access to and from local and regional destinations and to adjacent bicycle networks.

Bike Lane. A portion of a roadway that has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.

Bikeway. A bikeway is created when a road has the appropriate design treatment for bicyclists, based on motor vehicle traffic volumes and speeds. On-road bikeways include shared roadway, shoulder bikeway, bike lane or bicycle boulevard design treatments. Another type of bikeway design treatment, the multi-use path, is separated from the roadway.

Capacity. The maximum number of vehicles (vehicle capacity) or passengers (person capacity) that can pass over a given section of roadway or transit line in one or both directions during a given period of time under prevailing roadway and traffic conditions.

Center City. The downtown and adjacent portions of the city of Portland. See the Growth Concept map and text.

Citizen Advisory Committee (CAC). Selected for a specific issue, project, or process, a group of citizens volunteer and are appointed by Metro to represent citizen interests. The RTP citizen advisory committee reviews regional transportation issues.

Clean Air Act Amendments of 1990. Amendments to the Clean Air Act which specify that no transportation project, whether federally or locally funded, may interfere with attainment or maintenance of federal air quality standards. With respect to transportation planning, this requirement means that the Federal Highway Administration and the Federal Transit Administration must affirm that all regionally significant transportation projects must be identified in the Metro Transportation Improvement Program and must be demonstrated to conform with the 1982 Oregon State (Air Quality) Implementation Plan (SIP). Note: The SIP is currently being amended to show Portland-area attainment of national air quality standards and methods adopted to maintain the standards for a 20-year period. EPA approval of the SIP amendment is expected in late 1997.

Community. For the purposes of the RTP, this term refers to informal subareas of the region, and may include one or more incorporated areas and adjacent unincorporated areas that share transportation facilities or other urban infrastructure. For example, references to the east Multnomah County community usually includes the cities of Gresham, Troutdale, Fairview and Wood Village, and unincorporated areas that abut these jurisdictions (see "Regional").

Congestion Management System (CMS). The CMS is one of the six management systems required by ISTEA. The CMS is to provide "information on transportation system performance and alternative strategies to alleviate congestion and enhance mobility." A key provision of CMS is that consideration must be given to a variety of demand reduction and operational management strategies as alternatives to increases in single occupant vehicle capacity when addressing deficiencies. This includes methods to monitor and evaluate performance, identify alternative actions, assess and implement cost-effective actions and evaluate the effectiveness of implemented actions.

Congestion Pricing. A transportation management tool which applies market pricing principles to roadway use. This tool involves the use of user surcharges or tolls on congested facilities during peak traffic periods. The theory of peak period pricing suggests that charging drivers per mile of travel during the congested times of the day will relieve traffic congestion by discouraging some vehicle trips and shifting others to alternative modes, facilities, destinations or times of travel.

Corridors. While some corridors may be continuous, narrow bands of higher intensity development along arterial roads, others may be more "nodal"; that is, a series of smaller centers at major intersections or other locations along the arterial

which have high quality pedestrian environments, good connections to adjacent neighborhoods and good transit service. So long as the average target densities and uses are allowed and encouraged along the corridor, many different development patterns - nodal or linear - may meet the corridor objective .

Density Bonus. This term refers to allowing developers to build at higher densities than stated in local zoning code. This incentive is designed to promote more compact development, reduce trip lengths and promote alternative modes of travel.

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.

Employee Commute Options (ECO) Rule. The ECO Rule is part of House Bill 2214 which was adopted by the 1992 Legislature. The Rule directs the Department of Environmental Quality to institute an employee trip reduction program. The Rule is designed to reduce 10 percent of commuter trips for all businesses that employ 50 or more persons at a single site.

Employment Areas Areas of mixed employment that include various types of manufacturing, distribution and warehousing uses, commercial and retail development as well as some residential development. Retail uses should primarily serve the needs of the people working or living in the immediate employment area. Exceptions to this general policy can be made only for certain areas indicated in a functional plan.

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.

Fair Share A proportionate amount by local jurisdiction. Used in the context of affordable housing in this document. A "Fair share" means that each city and

county within the region working with Metro to establish local and regional policies which will provide the opportunity within each jurisdiction for accommodating a portion of the region's need for affordable housing.

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.

Freight Intermodal Facility. An intercity facility where freight is transferred between two or more modes (e.g., truck to rail, rail to ship, truck to air, etc.)

Freight Mobility. The efficient movement of goods from point of origin to destination.

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.

Greater Metropolitan Region. Defined as the greater area surrounding and including Metro's jurisdictional area, including parts of Multnomah, Clackamas and Washington counties as well as urban areas in Marion, Columbia and Yamhill counties (see "Metropolitan Region").

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 UGB 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.

High Occupancy Vehicle (HOV). This term refers to vehicles that are carrying two or more persons, including the driver. An HOV could be a transit bus, vanpool, carpool or any other vehicle that meets the minimum occupancy requirements of the specific facility. In practice, only vehicles with two or three or more persons would be able to use a designated "HOV" travel lane.

Housing Affordability. The availability of housing such that no more than 30 percent (an index derived from federal, state and local housing agencies) of the

monthly income of the household need be spent on shelter.

Industrial Areas. An area set aside for industrial activities. Supporting commercial and related uses may be allowed, provided they are intended to serve the primary industrial users. Residential development shall not be considered a supporting use, nor shall retail users whose market area is substantially larger than the industrial area be considered supporting uses.

Infill. New development on a parcel or parcels of less than one contiguous acre located within the UGB.

Infrastructure. Roads, water systems, sewage systems, systems for storm drainage, telecommunications and energy transmission and distribution systems, bridges, transportation facilities, parks, schools and public facilities developed to support the functioning of the developed portions of the environment. Areas of the undeveloped portions of the environment such as floodplains, riparian and wetland zones, groundwater recharge and discharge areas and Greenspaces that provide important functions related to maintaining the region's air and water quality, reduce the need for infrastructure expenses and contribute to the region's quality of life.

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

Intermodal The connection of one type of transportation mode with another

Intermodal Facility. A transportation element that accommodates and interconnects different modes of transportation and serves the statewide, interstate and international movement of people and goods. *See also passenger intermodal facility and freight intermodal facility definitions.*

Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. The federal highway/public transportation funding reauthorization which among other features funds the national highway system and gives states and local governments more flexibility in making transportation decisions. The Act places significant emphasis on broadening public participation in the transportation planning process to include key stakeholders, including the business community, community groups, transit operators, other governmental agencies and those who have been traditionally underserved by the transportation system. Among other things, the Act requires the metropolitan area planning process to consider such issues as land use planning, energy conservation, intermodal connectivity and enhancement of transit service. Finally, the Act integrates transportation planning with achievement of the air quality conformity requirements embodied in the Clean Air Act Amendments of 1990 and State air quality plans.

Jobs Housing Balance. The relationship between the number, type, mix and wages of existing and anticipated jobs balanced with housing costs and availability so that non-auto trips are optimized in every part of the region.

Joint Policy Advisory Committee on Transportation (JPACT). A 17-member committee that consists of elected officials from area cities and counties as well as leaders from public agencies in the region with an interest in transportation. This committee's role is to evaluate transportation needs and coordinate transportation decisions for the region, and give recommendations to the Metro Council.

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, schools and solid waste disposal.

Land Conservation and Development Commission (LCDC). The 7-member directorship of Oregon's statewide planning program. The LCDC is responsible for approving comprehensive land use plans promulgating regulations for each of the statewide planning goals.

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.

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.

Major Amendment. A proposal made to the Metro Council for expansion of the UGB of 20 acres or more, consistent with the provisions of the Metro code.

Metro Committee for Citizen Involvement (MCCI). A committee composed of citizen representatives from the Tri-Counties area, to "advise and recommend actions to the Metro Council on matters pertaining to citizen involvement."

Metro Council. A committee composed of 7 members elected from districts throughout the metropolitan region (urban areas of Clackamas, Multnomah and Washington counties). The Council approves Metro policies, including growth management and transportation plans, projects and programs recommended by Metro Policy Advisory Committee (MPAC - see below) and the Joint Policy Advisory Committee on Transportation (JPACT - see above).

Metro Policy Advisory Committee (MPAC). A committee -established by the Metro Charter and composed of local elected officials (including representatives from Clark County, WA and the State of Oregon), MPAC is responsible for recommending to the Metro Council adoption of or amendment to any element of the Charter-mandated Regional Framework Plan.

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 UGB. This rule establishes minimum overall net residential densities for all cities and counties within the UGB, and specifies that 50 percent of the land set aside for new residential development be zoned for multifamily housing.

Metropolitan Planning Organization (MPO). An individual agency designated by the state governor in each federally recognized urbanized area to coordinate transportation planning for that metropolitan region. Metro (see above) is that agency for Clackamas, Washington and Multnomah Counties; for Clark County, Washington, that agency is the Southwest Washington Regional Transportation Council (SWRTC, formally the Intergovernmental Resource Center - see below).

Metropolitan Region. Defined as the area included within Metro's jurisdictional boundary, including parts of Multnomah, Clackamas and Washington counties (see "Greater Metropolitan Region").

Metropolitan Transportation Improvement Program (MTIP). A staged, multi-year, intermodal program of transportation projects which is consistent with the metropolitan transportation plan.

Mobility. The ability to move people and goods from place to place, or the potential for movement. Mobility reflects the spatial structure of the transportation network and the level and quality of its service. Mobility is determined by such characteristics as road capacity and design speed.

Motor Vehicle Level of Service (LOS). A qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort, convenience and safety. An LOS rating of "A" through "F" describes the traffic flow on streets and highways and at intersections. The following table describes general traffic flow characteristics for each level of service on a street or highway:

<u>LOS</u>	<u>Traffic Flow Characteristics</u>
A	Virtually free flow; completely unimpeded
B	Stable flow with slight delays; reasonably unimpeded
C	Stable flow with delays; less freedom to maneuver
D	High density but stable flow
E	Operating conditions at or near capacity; unstable flow
F	Forced flow, breakdown conditions
Greater than F	Demand exceeds roadway capacity, limiting volume than can be carried and forcing excess demand onto parallel routes and extending the peak period

Source: 1985. Highway Capacity Manual (A through F descriptions)
Metro (>F Description)

Multi-use Path. A path that is physically separated from motor vehicle traffic by an open space or barrier and is either within the highway right-of-way or within an independent right-of-way, used by bicyclists, pedestrians, joggers, skaters and other non-motorized travelers.

Neighbor City. Nearby incorporated cities with separate urban areas from the Metro urban area, but connected to the metropolitan area by major highways. Neighbor cities include Sandy, Estacada, Canby, Newberg, North Plains and Scappoose.

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

Open Space. Publicly and privately -owned areas of land, including parks, natural areas and areas of very low density development inside the UGB.

Oregon Bicycle and Pedestrian Plan. An element of the Oregon Transportation Plan, this plan offers the general principles and policies that ODOT follows to provide bikeways and walkways along state highways. This plan also provides guidance to cities and counties, as well as other organizations and private citizens, in establishing bicycle and pedestrian facilities on local transportation systems.

Oregon Statewide Planning Goals. The 19 goals which provide a foundation for the state's land use planning program. The planning goals can be grouped into four broad categories: land use, resource management, economic development, and citizen involvement. Locally adopted comprehensive plans and regional transportation plans must be consistent with the statewide planning goals.

Oregon Transportation Plan (OTP). The State's official statewide, intermodal transportation plan that will set priorities and state policy in Oregon for the next 40 years. The plan, developed by the Oregon Department of Transportation

through the statewide transportation planning process, responds to federal ISTEA requirements (see above) and Oregon's Transportation Planning Rule (TPR - see below).

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

Park-and-Ride. A mode of travel, usually associated with movements between work and home, that involves use of a private auto on one portion of the trip and a transit vehicle (i.e., a bus or a light rail vehicle) on another portion of the trip. Thus, a park-and-ride trip could consist of an auto trip from home to a parking lot, and transfer at that point to a bus in order to complete the trip to work.

Parking Cash-Out. This term refers to a transportation demand management strategy where the market value of a parking space is offered to an employee by the employer. The employee can either spend the money for a parking space, or pocket it and then use an alternative mode to travel to work. Measures such as parking cash-out provide disincentives for commuting by single occupancy vehicles.

Passenger Intermodal Facility. The hub for various statewide, national and international passenger modes and transfer points between modes (e.g., airport, bus and train stations).

Pedestrian. A person on foot, in a wheelchair or walking a bicycle.

Pedestrian Facility. A facility provided for the benefit of pedestrian travel, including walkways, crosswalks, signs, signals, illumination and benches.

Pedestrian Scale. An urban development pattern where walking is a safe, convenient and interesting travel mode. It is an area where walking is at least as attractive as any other mode to all destinations within the area. The following elements are not cited as requirements, but illustrate examples of pedestrian scale: continuous, smooth and wide walking surfaces; easily visible from streets and buildings and safe for walking; minimal points where high speed automobile traffic and pedestrians mix; frequent crossings; storefronts, trees, bollards, on-street parking, awnings, outdoor seating, signs, doorways and lighting designed to serve those on foot; well integrated into the transit system and having uses which cater to people on foot.

Persons Per Acre. This is a term expressing the intensity of building development by combining residents per net acre and employees per net acre.

Planning activities Planning activities cited in the RUGGO are not regulatory

but contain implementation ideas for future study in various stages of development that may or may not lead to RUGGO amendments, new functional plans, functional plan amendments, or regional framework plan elements. Planning activities for any given year will be subject to Metro Executive Officer budget recommendations and Metro Council budget adoption.

Public Transportation. This term refers to both publicly and privately funded transportation serving the general public, including fixed-route bus and rail service, inter-city passenger bus and rail service, dial-a-ride and demand responsive services, client transport services and commuter/rideshare programs. For the purposes of the RTP, school buses and taxi subsidy programs are not included in this definition.

Regional. For the purposes of the RTP, this term refers to large subareas of the region, or the entire region, and usually includes many incorporated areas and adjacent unincorporated areas that share major transportation facilities or other urban infrastructure (see "Community").

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.

Regional Framework Plan. Required of Metro under the Metro Charter, the Regional Framework Plan must address nine specific growth management and land use planning issues (including transportation), with the consultation and advice of MPAC (see above). To encourage regional uniformity, the regional framework plan shall also contain model terminology, standards and procedures for local land use decision making that may be adopted by local governments.

Regional Transportation Plan (RTP). The official intermodal transportation plan that is developed and adopted through the metropolitan transportation planning process for the metropolitan planning area.

Regional Urban Growth Goals and Objectives (RUGGOs). An urban growth policy framework that represents the starting point for the agency's long-range regional planning program.

Right-of-Way (ROW). This term refers to publicly-owned land, property or interest therein, usually in a strip, within which the entire road facility (including travel lanes, medians, sidewalks, shoulders, planting areas, bikeways and utility easements) must reside. The right-of-way is usually defined in feet and is acquired for or devoted to multi-modal transportation purposes including bicycle, pedestrian, public transportation and vehicular travel.

Rural Area. Those areas located outside the Metro Urban Growth Boundary (UGB).

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

Shared Roadway. A type of bikeway where bicyclists and motor vehicles share a travel lane.

Sidewalk. A walkway separated from the roadway with a curb, constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians.

Single-occupancy vehicle (SOV). This term means private passenger vehicles carrying one occupant.

State Implementation Plan. A plan for ensuring that all parts of Oregon remain in compliance with Federal air quality standards.

State Transportation Improvement Program (STIP). A federally required document that allocates transportation funds to a staged, multi-year, statewide, intermodal program of transportation projects - consistent with the Statewide transportation plan and planning processes and metropolitan plans, TIPs and processes. The metropolitan TIP must be included in the STIP without change.

Station Communities That area generally within a 1/4- to 1/2-mile radius of light rail stations or other high capacity transit which is planned as a multi-modal community of mixed uses and substantial pedestrian accessibility improvements.

Stewardship A planning and management approach that considers environmental impacts and public benefits of actions as well as public and private dollar costs.

Subregion. An area of analysis used by Metro centered on each regional center and used for analyzing jobs/housing balance.

Technical Advisory Committee (TAC). A group of technical staff from government agencies participating in the project. The TAC is responsible for producing the base technical information that will ultimately be used by local decision-makers to complete the project purpose.

Telecommute. A transportation demand management strategy whereby an individual substitutes working at home for commuting to a work site on either a part-time or full-time basis.

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.

Traffic. The number of motor vehicles in a given location at a given point in time.

Traffic Calming. A transportation system management technique that aims to prevent inappropriate through-traffic and reduce motor vehicle travel speeds on a particular roadway. Traditionally, this technique has been applied to local residential streets and collectors and may include speed bumps, curb extensions, planted median strips or rounds and narrowed travel lanes.

Transit. For purposes of the RTP, this term refers to publicly-funded and managed transportation services and programs within the urban area, including light rail, regional rapid bus, frequent bus, primary bus, secondary bus, mini-bus, paratransit and park-and-ride.

Transit Level of Service. The comfort, safety, convenience and utility of transportation service, measured differently for various types of transportation systems.

Transit-Oriented Development. A mix of residential, retail and office uses and a supporting network of roads, bicycle and pedestrian ways focused on a major transit stop designed to support a high level of transit use. Key features include: a mixed use center and high residential density.

Transportation Demand Management (TDM). Actions, such as ridesharing and vanpool programs, the use of alternative modes, and trip-reduction ordinances, which are designed to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional road capacity.

Transportation Disadvantaged/Persons Potentially Underserved by the Transportation System. Those individuals who have difficulty in obtaining transportation because of their age, income, physical or mental disability.

Transportation Management Area (TMA). As defined in federal regulations, this term refers to “an urbanized area with population over 200,000” and “applies to the entire metropolitan planning area.” All locations must meet certain standards and non-attainment TMA’s must meet additional planning requirements.

Transportation Planning Rule (TPR). The implementing rule of statewide land use planning goal (#12) dealing with transportation, as adopted by the State Land Conservation and Development Commission (LCDC - see above). Among its many provisions, the Rule includes requirements to preserve rural lands, reduce vehicle miles traveled (VMT) per capita by 20% in the next 30 years, reduce parking spaces and to improve alternative transportation systems.

Transportation Policy Alternatives Committee (TPAC). Senior staff-level policy committee which reports and makes policy recommendations to JPACT (see above). TPAC's membership includes technical staff from the same governments and agencies as JPACT, plus representatives of the Federal Highway Administration and the Southwest Washington Regional Transportation Council (SWRTC - see above); there are also six citizen representatives appointed by the Metro Council (see above).

Transportation System Management (TSM). Strategies and techniques for increasing the efficiency, safety, capacity or level of service of a transportation facility without major new capital improvements. This may include signal improvements, intersection channelization, access management, HOV lanes, ramp metering, incident response, targeted traffic enforcement and programs that smooth transit operations.

Transportation System Plan (TSP). A plan for one or more transportation facilities that are planned, developed, operated and maintained in a coordinated manner to supply continuity of movement between modes, and within and between geographic and jurisdictional areas.

Tri-Met. Tri-County Metropolitan Transportation District, which is the transit agency for most of Clackamas, Multnomah and Washington Counties.

Urban Area. Those areas located within the Metro Urban Growth Boundary (UGB).

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 Growth Management Functional Plan (Functional Plan) - A regional functional plan with requirements binding on cities and counties in the Metro region, as mandated by Metro's Regional Framework Plan. The Functional Plan addresses such issues as accommodation of projected regional population and job growth, regional parking management, water quality conservation, retail in employment and industrial areas and accessibility on the regional transportation system. All cities and counties in the Metro region shall adopt changes to local comprehensive plans and zoning codes to address these issues within 24 months after the adoption of the Functional Plan ordinance by the Metro Council.

Urban Reserve Area. An area adjacent to the present UGB defined to be a priority location for any future UGB 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 UGB describes an area needed to accommodate the urban growth forecasted over a 20-year period, the urban reserves plus the area inside the UGB estimate the area capable of accommodating the growth expected for 50 years.

Walkway. A hard-surfaced transportation facility built for use by pedestrians, including persons using wheelchairs. Walkways include sidewalks, paths and paved shoulders.

Wide Outside Lane. A wider than normal curbside travel lane that is provided for ease of bicycle operation where there is insufficient room for a bike lane or shoulder bikeway.

Tables And Figures

Tables and Figures

TABLE 1: COMPARISON OF 1990 CONDITIONS AND GROWTH ALTERNATIVES.....	19
TABLE 2: COMPARISON OF THE BASE CASE AND THE RECOMMENDED ALTERNATIVE	28
TABLE 3: CALCULATION OF CURRENT URBAN GROWTH BOUNDARY CAPACITY	38
TABLE 4: REGIONAL HOUSING NEED 1995 - 2017, BASED ON THE METRO 2040 GROWTH CONCEPT (URBAN METRO AREA ONLY - INCLUDES VACANCY RATE)	40
TABLE 5: RECOMMENDED NEEDED ADDITIONAL AFFORDABLE HOUSING IF AFFORDABLE HOUSING IS TO BE ACHIEVED THROUGHOUT THE REGION.....	44
FIGURE 1 BASE CASE.....	10
FIGURE 2: CONCEPT A	13
FIGURE 3: CONCEPT B	15
FIGURE 4: CONCEPT C	17
FIGURE 5: REDUCE AVERAGE LOT SIZE GRAPH	24
FIGURE 6: REDUCE SPACE DEVOTED TO PARKING GRAPH	25
FIGURE 7: INCREASE DEVELOPMENT ALONG TRANSIT GRAPH.....	25
FIGURE 8: ENCOURAGE GROWTH IN CITY CENTERS GRAPH.....	25
FIGURE 9: RECOMMENDED ALTERNATIVE.....	27
FIGURE 10 COLUMBIA AND WILLAMETTE RIVER FLOODING.....	135
FIGURE 11 LAND USES GROUPED BY SEISMIC RISK.....	144
FIGURE 12: POPULATION CHANGE BY COUNTY 1980-1996.....	149

Publications

Metro Publications List

Statutory Documents, Legislation and Technical Reports

- Adopted Findings and Conclusions - Ordinance No. 96-655E (Urban Reserve Area Designations)**, March 6, 1997. Metro Office of General Counsel.
- Urban Growth Management Functional Plan (Ordinance No. 96-647C)**, November 21, 1996. Metro.
- Executive Officer Recommendations - Urban Reserves Background Data, Exhibit A**, September 1996. Metro Growth Management Services Department.
- Utility Feasibility Analysis for Metro 2040 Urban Reserve Study Areas**, June 1996. KCM, Inc.
- Regional Transportation Plan Update**, April 19, 1996. Metro Regional Transportation Plan Citizens Advisory Committee
- Housing Needs Analysis Discussion Draft**, March 1996. Metro.
- Urban Growth Report Discussion Draft**, March 1996. Metro.
- Regional Urban Growth Goals and Objectives (Ordinance No. 95-625A)**, December 1995. Metro.
- Urban Reserve Study Areas Report**, December 4, 1995. Metro.
- Regional Parking Management Program for the Portland Metropolitan Area**, December, 1995. Metro.
- Survey of Natural Resource Protection Tools in the Portland Metropolitan Region**, October 1995. Metro.
- Transportation Demand Management (TDM) Phase I Report (draft)**, October 1995. Metro.
- Regional Bicycle Plan (draft)**, October, 1995. Metro.
- Utility Feasibility Analysis for Metro 2040 Urban Reserve Study Areas**, September 1995. KCM.
- Neighboring Cities 2040 Study**, August 1995. OTAK, et al.
- Regional Pedestrian Program Background Report (draft)**, August 1995. Metro.
- Buildable Land Inventory Review (Zell Report)**, Summer 1995. Zell & Associates.
- Metro 2040 Growth Concept (Resolution No. 94-2040C)**, December 8, 1994. Metro.
- Region 2040 Recommended Alternative Decision Kit**, September 1994. Metro.
- Region 2040 Technical Appendix**, September 15, 1994. Metro.
- Transportation Analysis of the Growth Concepts**, July 1994. Metro.
- Region 2040 Concept Document - Land Use Appendix**. July 1994. Metro.

- Concepts for Growth, Report to the Council (Concept Report), June 1994.**
Metro.
- Portland Metro 2040 Commodity Flow and Requirements Study, Phase III Report, June 1994.** DRI/McGraw-Hill, et al.
- The Region 2040 Study (Regional Design Images), May 1994.** Calthorpe and Associates.
- Profiles of the Portland-Vancouver Economy, May 1994.** Metro. (*\$10 report - (503) 797-1742*)
- Water Descriptive Indicators: Final Report, April 1994.** ECO Northwest and CH2M Hill
- 2040 Indicators: Housing and Employment, April 1994.** ECO Northwest
- Carrying Capacity and Its Application to the Portland Metropolitan Region, April 1994.** Wim Aspeslaugh, University of Oregon for the Future Vision Commission.
- Evaluation of No-Growth and Slow-Growth Policies for the Portland Region, March 1994.** ECO Northwest.
- Workstyles Study, March 1994.** Steve Schriver, Institute of Portland Metropolitan Studies for the Future Vision Commission.
- Creating and Using Descriptive Indicators: Non-Quantifiable Issues, February 1994.** Pacific Rim Resources.
- Region 2040 Interim Report, January 1994,** Metro.
- Settlement Patterns in the Portland Region: A Historical Overview, January 1994.** Carl Abbott, Portland State University, for the Future Vision Commission.
- The Regional Forecast, Portland-Vancouver Metropolitan Area Forecast 1990 - 2040, November 1993.** Metro. (*\$20 report - call (503) 797-1742*)
- Existing Conditions: The Natural and Built Environment, June 1993.** ECO Northwest.
- Mixed-Use Urban Centers: Economic and Transportation Characteristics, February 1993.** Cambridge Systematics and Parsons Brinckerhoff Quade & Douglas, Inc.
- Region 2040 - Phase 1 Final Report, June 1993,** ECO Northwest and Metro.
- Housing Issues Report, March 1991.** Metro Planning & Development Dept.
- Region 2040 Public Involvement Summaries/Results**
- Public Comment Report (Regional Transportation Plan Update).** April 10, 1996. Metro
- 2040 Framework Report on Public Involvement Summer 1995.** August 1995. Metro.
- Interim Federal Regional Transportation Plan Public Comment Report, May, 1995.** Metro.
- Region 2040 Public Involvement Report, August 1994.** Metro, Cogan Owens Cogan and Pacific Rim Resources.
- Summary of Round 2 of Public Involvement, January 1993.** Cogan Sharpe Cogan and Pacific Rim Resources.

Summary of Round 1 of Public Involvement: Implications for Defining Alternatives, August 1992. ECO Northwest.

Surveys

1997 Growth Management Survey Summary, February 1997. Davis & Hibbitts, Inc.

Survey on Growth & the Economy, December 1996. Portland General Electric.

Survey on Growth & the Economy, March 1996. Portland General Electric.

Public Attitudes Toward Growth Management - A Public Opinion Research Project, March 1996. Davis & Hibbitts, Inc., for Metro 2040 Means Business Committee

Citispeak Survey, January 1995. Western Attitudes.

Citispeak Survey, April 1994. Western Attitudes.

Citispeak Survey, April 1993. Western Attitudes.

Citispeak Survey, September 1993. Western Attitudes.

Oregon Values and Beliefs Survey, Summary Report, 1993. Oregon Business Council.

Telephone Survey for the Region 2040 Project, April 1992. Decision Sciences.

Region 2040 brochures/tabloids

Urban Reserves Frequently Asked Questions (Metro's Web Page) April 1997.

Metro 2040 Framework Update, Fall 1996/Winter 1997.

Metro 2040 Framework Council Schedule, September 1996.

Metro Facts - Metro and Growth Management: The Region's 2040 Framework, Fall 1996.

Metro 2040 Framework Update, Spring 1996.

Metro 2040 Framework Update, Fall 1995/Winter 1996.

Metro 2040 Framework Update, Spring/Summer 1995.

Decisions for Tomorrow, Metro Region 2040 Update, Fall 1994.

"It's Your Turn" tabloid mailer, June 1994.

Decisions for Tomorrow, Metro Region 2040 Update, Fall/Winter 1993.

Decisions for Tomorrow, Metro Region 2040 Update, Spring 1993.

Region 2040: Shaping the Choices for Growth, September 1992 (newsprint).

Supporting Documents

The Determinants of Metropolitan Property Values: Implications for Regional Planning, October 8, 1996. Gerrit Knapp, Ph.D. University of Illinois at Urbana-Champaign.

Regional Transportation Policy (Regional Transportation Plan Update), July 25, 1996. Metro Regional Transportation Plan Citizens Advisory Committee.

Regional Transportation Plan Update (Citizen Advisory Committee Policy Recommendations Final Draft), April 19, 1996. Metro Regional Transportation Plan Citizen Advisory Committee.

Interim Federal Regional Transportation Plan, July 1995. Metro.

Future Vision Report, June 1995. Metro Future Vision Commission.

The Citizens Regional Watershed Handbook, May 1995. Metro and the Wetlands Conservancy.

Rock Creek Watershed Atlas, March 1995. Portland State University and Metro.

National Case Studies in Managing Growth and Natural Resources, 1995. Metro.

Tryon Creek Watershed Atlas, 1995. Portland State University and Metro.

Land Use In Oregon: Growth and Change, January 1995. League of Women Voters of Oregon.

Transportation Planning Rule Implementation Regional Guidelines: Report on a Regional Discussion, February 1994. Cogan, Owens, Cogan.

Oregon's Statewide Planning Goals & Guidelines, 1995 Edition. Department of Land Conservation and Development.

Oregon's Statewide Land Use Planning Goals, 1993 Edition. Department of Land Conservation and Development.

Picture This...The Results of a Visual Preference Survey, June 1993. A. Nelesen Associates, Inc.

1992 Metro Charter, November 1992. Metro.

Oregon Benchmarks, December 1992. Oregon Progress Board.

Ten Essentials for a Quality Regional Landscape, 1992. Metro.

Regional Transportation Plan, January 1992 Revision of the 1989 Update. Metro.

Regional Urban Growth Goals and Objectives, September 1991. Metro.

Historical Development of the Metropolitan Service District, May 1991 by Carl Abbott for the Metro Charter Committee.

Videos

Building 2040, November 1995. Metro.

It's Your Future. It's Your Turn, June 1994. Metro.

Implementation

Making an Assessment of Accessory Rental Units in the Portland Area, June 1996. Theodis Perry, Jr.

Main Street Handbook - A User's Guide to Main Streets, March 1996. Metro.

Regional Mainstreets: An Implementation Strategy to Promote Main Street and Corridor Development, July 1995. Metro.

Regional Mainstreets, Transit Corridor Implementation Strategy, Technical Memorandum, June 1995. Tashman Associates et al.

Market Background and Observations of Regional Mainstreets, June 1995. Leland Consulting Group.

Accessory Rental Units in the Portland Area: A Guide for Design, Development & Management, May 1995. Institute of Portland Metropolitan Studies (Ethan Seltzer and Theodis Perry, Jr.)

Regional Mainstreets: Main Street and Corridor Case Study Analysis, Technical Memorandum, June 1995. Tashman Associates et al.

To obtain copies of documents listed here, contact Metro's Growth Management Services Department at (503) 797-1562.

Metro Policy Advisory Committee

Chair, Rob Drake, Mayor, Beaverton
Bob Baker, Councilor, Vancouver
Richard Benner, Director, Department of
Land Conservation and Development
Philip R. Bogue, President, Tri-Met Board
of Directors
Bud Farm (Second Vice-chair), Powell
Valley Road Water District
Jim Francesconi, Commissioner, City of
Portland
Charlie Hales, Commissioner, City
of Portland
Judie Hammerstad (Vice Chair), Chair,
Clackamas County Commission
Bill Klammer, Mayor, City of Lake Oswego
Jon Kvistad, Metro Council Presiding
Officer
Peggy Lynch, citizen member
Ruth McFarland, Metro Councilor
Susan McLain, Metro Councilor
Gussie McRobert, Mayor, Gresham
Robert Mitchell, Chair, Tualatin Valley
Water District
Lou Ogden, Mayor, Tualatin
Linda Peters, Chair, Washington County
Commission
Chuck Petersen, Board Member, Oak
Lodge Sanitary District
David C. Ripma, Councilor, Troutdale
Dan Saltzman, Commissioner, Multnomah
County
Jean Schreiber, Councilor, Milwaukie
Judie Stanton, Commissioner, Clark
County
Mitch Wall, citizen member
Jim Zehren, citizen member

Metro Policy Advisory Committee Alternates

Evelyn Brzezinski, Councilor, Beaverton
Kathy Christy, Commissioner, Washington
County
Tanya Collier, Commissioner, Multnomah
County
Demi DeSoto, Executive Director, North
Clackamas Chamber of Commerce
Carol Gearin, Board Member, Tualatin
Valley Fire and Rescue
John Hartsock, Boring Fire Protection
District 59
Bill Kennemer, Commissioner, Clackamas
County
Richard Kidd, Councilor, City of Forest
Grove
Tom Lowery, Councilor, City of Lake
Oswego
Patricia McCaig, Metro Councilor
George J. Passadore, Tri-Met, Office of
the General Manager
Jim Sitzman, Urban Program Coordinator,
Department of Land Conservation
and Development
Jill Thorn, Mayor, West Linn
David Widmark, Councilor, Gresham