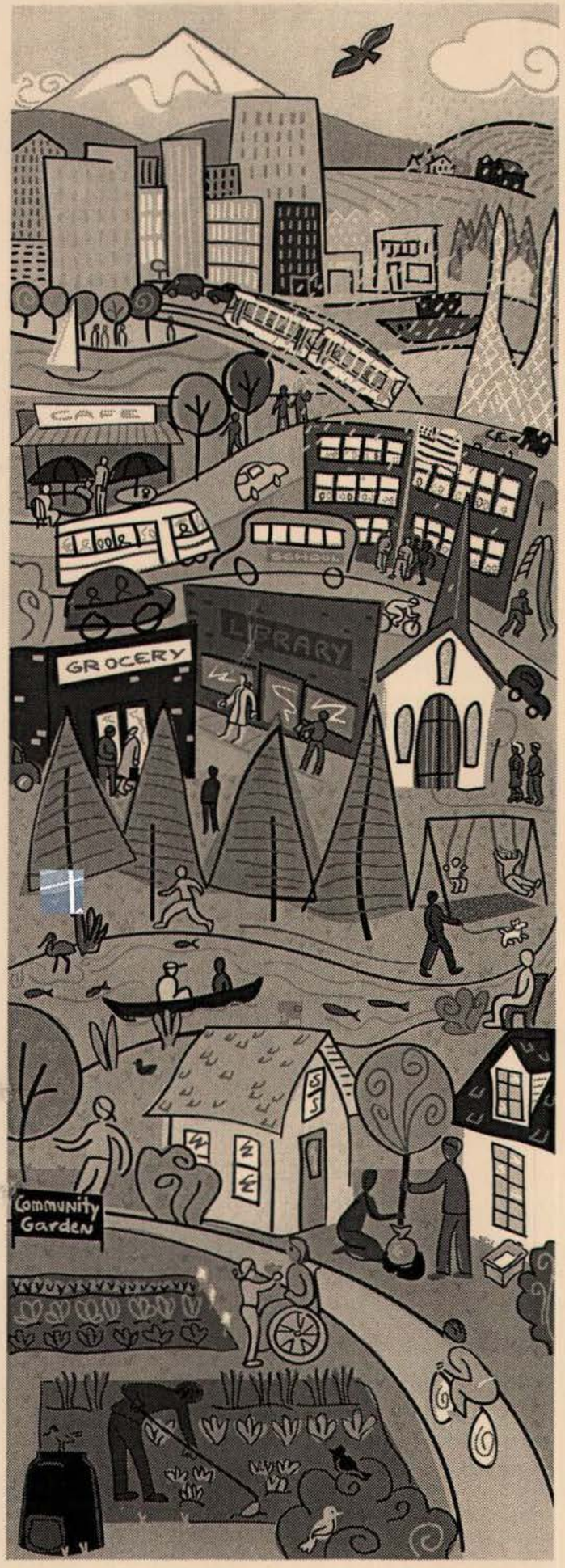

Performance Measures Report

Summary of results

An evaluation of 2040 growth management policies and implementation

Planning Department
March 2003

METRO
PEOPLE PLACES
OPEN SPACES

Metro

People places • open spaces

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

Metro manages regional parks and greenspaces and owns the Oregon Zoo and the Oregon Convention Center. It also oversees the operation of the Portland Center for the Performing Arts and the Portland Metropolitan Exposition (Expo) Center.

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Descriptions of Performance Measures Reports

Complete Results
The Complete Results report contains a thorough explanation of the process that Metro followed to complete this first report. The report provides a context for Metro's performance measures work and contains information on Metro and State performance measure requirements in addition to detailing the process for identifying and prioritizing the performance indicators, and collecting data. Most importantly, the Complete Results includes an analysis of the data collected for each performance indicator and explains the regional policies the indicators were intended to measure.

Summary of Results
The Summary of Results report presents a sampling of the most noteworthy indicators measured in the Complete Results and includes where possible, comparison data collected from other parts of the country, and comparison of the results with Metro targets or goals. The Summary of Results attempts to provide a policy context for interpreting the results of groups of indicators. Additionally, the Summary of Results contains basic statistics for the Metro region that are not found in the Complete Results.

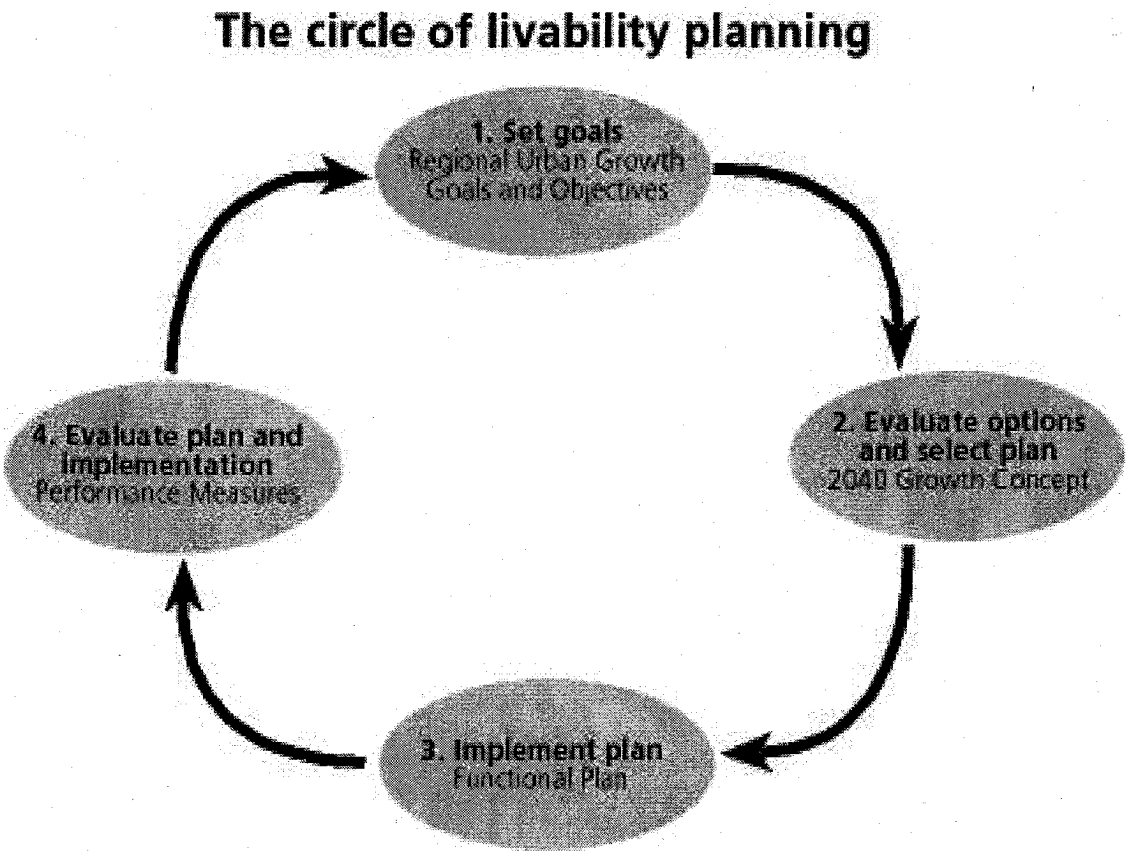
The Portland Region: How are we doing? Highlights of the region's land use and transportation performance measures
The How are we doing? report is a citizen-friendly overview of the key findings generated in the analysis of the region's growth management policies. The information presented in this "snapshot" format is derived from the content of the Complete Results and Summary of Results reports. Some comparison data are included in this report.

Introduction

Purpose

This Performance Measures report attempts to answer the question: "How are we doing?"

For the first time since adoption of the Metro regional 2040 Growth Concept in 1995, growth management policies are being explicitly evaluated. This task completes a powerful systems management approach of setting goals, completing a plan, implementing the plan and evaluating results. This first performance measures effort lays a foundation and creates a methodology for the future evaluation of regional growth management policies. Given that there is a universe of factors that affect each area that was measured, it is important to point out that the findings in this report are just part of the whole explanation of how the region is doing.



Background

The development of the Regional Urban Growth Goals and Objectives (1991), and the 2040 Growth Concept (1995) that were incorporated into the Regional Framework Plan define a clear set of goals and values intended to guide the region's growth while maintaining livability. The implementation of the policies contained in these documents began with the adoption of the Urban Growth Management Functional Plan (Functional Plan) in 1996. A detailed explanation of the 2040 Growth Concept with photos follows this introduction.

Title 9 of the Functional Plan contains eight performance measures that are to be analyzed in order to assess the implementation and effectiveness of Functional Plan policies. These performance measures allow for the opportunity to evaluate, and if necessary, correct the policies contained in the Functional Plan.

In addition, the State Legislature, through Oregon State Law (ORS 197.301) requires that Metro compile and report a similar list of nine performance measures to the Department of Land Conservation and Development... "at least every two years."

In the fall of 2000, the Metro Council Community Planning Committee reviewed the required Functional Plan and State performance measures and came to the conclusion that these measures alone were too narrow in scope to adequately evaluate the 2040 Growth Concept. In response to the Committee's concerns, Metro staff organized the 2040 Growth Concept policies into eight main categories that became known as 2040 Fundamentals. These categories were then used to identify and group additional performance indicators that were subsequently reviewed by the Metro Technical Advisory Committee (MTAC), the Transportation Policy Alternatives Committee (TPAC) and eventually approved by the Metro Council.

Following is a list of the eight 2040 Fundamentals.

- **Encourage the efficient use of land** within the UGB by focusing on development of 2040 mixed use centers and corridors;

- **Protect and restore the natural environment** through actions such as protecting and restoring streams and wetlands, improving surface and ground water quality, and reducing air emissions;

- **Provide a balanced transportation system** including safe, attractive facilities for bicycling, walking and transit as well as for motor vehicles and freight;

- **Maintain separation between the Metro UGB and neighboring cities** by working actively with these cities and their respective counties;

- **Enable communities inside the Metro UGB to preserve their physical sense of place** by using, among other tools, greenways, natural areas, and built environment elements;

- **Ensure availability of diverse housing options** for all residents by providing a mix of housing types as well as affordable homes in every jurisdiction;

- **Create a vibrant place to live and work** by providing sufficient and accessible parks and natural areas, improving access to community resources such as schools, community centers and libraries as well as by balancing the distribution of high quality jobs throughout the region, and providing attractive facilities for cultural and artistic performances and supporting arts and cultural organizations; and

- **Encourage a strong local economy** by providing an orderly and efficient use of land, balancing economic growth around the region and supporting high quality education.

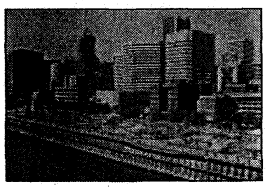
Over 130 potential indicators were identified to measure the eight 2040 Fundamentals approved by the Metro Council. Data availability and indicator prioritization reduced the number of indicators analyzed in the "complete results" report to 87. This "summary of results" report represents an overview of the indicators analyzed in the "complete results" report. (A complete list of the indicators measured appears at the end of this report.)

Neither the complete report, nor this summary report set benchmarks or targets. Nor did this performance measures effort evaluate the relationship between an indicator and the effect of a policy. Subsequent performance measures efforts will evaluate cause and effect relationships between regional policies (as contained in Metro plans) and actual performance. That work will also note other exogenous variables that may have an effect on any particular indicator.

What is the 2040 Growth concept?

The Metro 2040 Growth Concept and Map were adopted in December 1995 and define the preferred form of regional growth and development that the Portland metropolitan region will follow for a period of up to 50 years. This concept addresses the long-term growth management of the region and includes a general approach to building better communities for people who live here today and will live here in the future. The Growth Concept is based on containing growth within a carefully managed UGB, maintaining and enhancing the multi-modal transportation system that ensures mobility of people and goods throughout the region, and preserving access to nature.

The 2040 Growth Concept Map provides a visual reference to the urban form described in the text of the 2040 Growth Concept. There are ten 2040 design types, divided into main categories of mixed use areas, employment and industrial areas, neighborhoods and corridors (which support both housing and employment). The 2040 Growth Concept is based on mixed use areas supporting higher densities of employment and housing closely linked to multi-modal transportation systems. These mixed use areas are intended to be areas of compact development that offer diverse retail opportunities and numerous recreational and cultural activities all within walking distance of adjacent neighborhoods. Mixed use areas include the Central City, Regional Centers, Town Centers, Main Streets and Station Communities. The circles often represent the mixed use areas on the 2040 Growth Concept Map are intended to show a general location and scale. Jurisdictions in the region define the actual boundary and characteristics of their mixed use areas, and other 2040 Design Types.

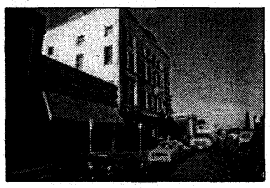


Central city

Downtown Portland serves as the hub of business and cultural activity in the region. It has the most intensive form of development for both housing and employment, with high-rise development common in the central business district. Downtown Portland will continue to serve as the finance and commerce, government, retail, tourism, arts and entertainment center for the region.

It is intended to serve the entire region 1 million people and grow in employment share commensurate with total regional employment growth.

Recommended average density for housing is 250 persons per acre.



Regional centers

As centers of commerce and local government services serving a market area of hundreds of thousands of people, regional centers become the focus of transit and highway improvements. They are characterized by two- to four- story compact employment and housing development served by high-quality transit. In the growth concept, there are seven regional centers – Gateway and Gresham serve Multnomah County; Hillsboro, Beaverton and Washington Square serve Washington County; Oregon City and Clackamas Town Center serve Clackamas County. Effectively, the eighth regional center is Vancouver serving southwest Washington.

Recommended average density for housing is 60 persons per acre.

Town centers

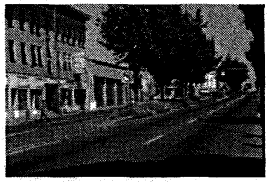
Town centers provide localized services to tens of thousands of people within a two- to three-mile radius. Examples include small city centers such as Lake Oswego, Tualatin, West Linn, Forest Grove and Milwaukie and large neighborhood centers such as Hillsdale, St. Johns, Cedar Mill and Aloha. One- to three-story buildings for employment and housing are characteristic. Town centers have a strong sense of community identity and are well served or planned to be well served by transit.

Recommended average density for housing is 40 persons per acre.

Station communities

Station communities are areas of development centered around a light-rail or high-capacity-transit station that feature a variety of shops, services and high density housing that will remain accessible to bicyclists, pedestrians and transit users as well as cars.

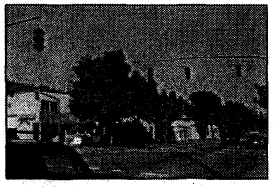
Recommended average density for housing is 45 persons per acre.



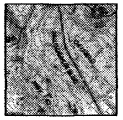
Main streets

Similar to town centers, main streets have a traditional commercial identity but are on a smaller scale with a strong sense of the immediate neighborhood. Examples include Southeast Hawthorne in Portland, the Lake Grove area in Lake Oswego and the main street in Cornelius. Main streets feature good access to transit.

Recommended average density for housing is 39 persons per acre.



Corridors



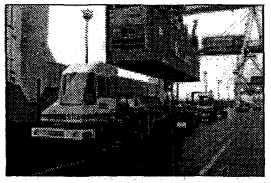
Corridors are major streets that serve as key transportation routes for people and goods. Examples of corridors include the Tualatin Valley Highway and 185th Avenue in Washington County, Powell Boulevard in Portland and Gresham and McLoughlin Boulevard in Clackamas County. Corridors are served extensively by transit.

Recommended average density for housing is 250 persons per acre.

Employment Areas

An area of mixed employment that can include various types of manufacturing, distribution and warehousing uses as well as commercial and retail development and some residential. However, the retail uses primarily serve the needs of the people working or living in the immediate employment area. Retail uses more than 60,000 square feet in size are generally not permitted.

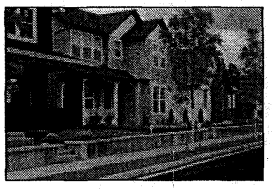
Recommended average density for housing is 20 persons per acre.



Industrial areas

Serving as hubs for regional commerce, industrial land and freight facilities for truck, marine, air and rail cargo provide a place for jobs and the ability to generate and move goods in and out of the region. Access to these areas is centered on rail, the regional freeway system and key roadway connections. Keeping these connections strong is critical to maintaining a healthy regional economy. Retail use over 60,000 square feet is prohibited.

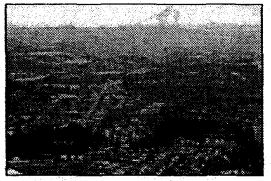
Recommended average density is 9 employees persons per acre.



Neighborhoods

Under the 2040 Growth Concept, most existing neighborhoods will remain largely the same. Some infill or redevelopment is expected so that vacant land or underused buildings could be put to better use. New neighborhoods are likely to have an emphasis on smaller single-family lots, mixed uses and a mix of housing types including row houses and accessory dwelling units. The growth concept distinguishes between slightly more compact inner neighborhoods, and outer neighborhoods, with slightly larger lots and fewer street connections.

Recommended average density for housing is 14 persons per acre.



Neighboring cities/green corridors

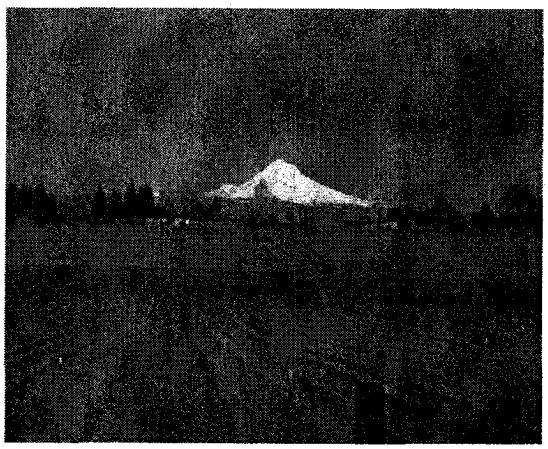
Communities such as Sandy, Canby, Newberg and North Plains have a significant number of residents who work or shop in the metropolitan area. Cooperation between Metro and these communities is critical to address common transportation and land-use issues. Neighboring cities are connected to the metro area by green corridor transportation routes intended to maintain a clear separation between Metro and these neighboring cities.

Rural reserves/open spaces

An important component of the growth concept is the availability and designation of lands that will remain undeveloped, both inside and outside the urban growth boundary. Rural reserves are lands outside the UGB that provide a visual and physical separation between urban areas and farm and forest lands intended for future urban growth boundary expansion. Open spaces inside the urban growth boundary include parks, stream and trail corridors, wetlands and floodplains for active and passive recreation, and fish and wild life habitat.

Major Findings

Performance Measures: An evaluation of 2040 Growth Concept Policies and Implementation



2040 Fundamental: Encourage efficient use of land within the UGB by focusing on development of 2040 mixed use centers and corridors.

The growth experienced by the region in the 1990s prompted the Region 2040 planning effort. This project weighed the consequences of expanding the urban growth boundary (UGB) to accommodate expected growth against taking steps to accommodate growth within a compact UGB. Policy makers realized that unmanaged growth could adversely affect the quality of life of the Metro region, and a refusal to accommodate growth could lead to economic impacts such as job losses, and substantial increases in housing prices. Policy makers felt that it was better to plan for growth than to try to ignore it.

The result of the planning effort was the 2040 Growth Concept. This concept contained a strategy for maintaining the quality of life in the region and for using land within the existing UGB more efficiently. The development pattern outlined in the 2040 Growth Concept would be realized by using less vacant land to accommodate new employment and housing and by encouraging the redevelopment of existing structures and "infill" development (development of vacant parcels in built areas) in appropriate areas. Another key element of the 2040 Growth

Concept would be the creation of a system of mixed use centers that support greater concentrations of housing and employment in close proximity to multi-modal transportation systems.

The 2040 Growth Concept and Regional Framework Plan rely on established mixed use centers accommodating increased employment and housing densities while undeveloped, vacant land in the UGB is used to greater efficiency. Except for infill development, redevelopment of vacant parcels, and accessory dwelling units, the 2040 Growth Concept does not call for increased densities in existing neighborhoods.

Key Findings

A. Efficiency of land use

When measuring changes in density, it is important to distinguish between neighborhoods in existence prior to the adoption of the Functional Plan (1996) and newer, developing neighborhoods. To begin assessing changes in density for the Metro region, data was collected for population and single family dwelling units per acre by census tract for two time periods, 1990 and 2000. A sample of the data collected for the region was organized using the boundaries of census tracts to approximate 13 different neighborhood examples that represent both newer and older neighborhoods in the region. (See Table 1)

The data shows two existing neighborhoods (Hawthorne and Irvington) experienced 4 percent decrease in persons per acre and roughly 2 percent increase in single family dwelling units per acre. The decrease in persons per acre reflects decreases in average household size in existing neighborhoods while the slight increase in dwelling units may be the result of new accessory dwelling unit (granny flat) construction or minimal infill development occurring in these mostly built-out neighborhoods. Newer neighborhoods in both Hillsboro and Sherwood experienced more than 300 percent increase in single family dwelling units per acre. These neighborhoods in Hillsboro and Sherwood experienced a 71 percent and a 167 percent increase in single family dwelling units per acre, respectively. These increases reflect the construction of new homes on vacant lands.

Table 1: Change in Neighborhoods in Single Family Dwelling Units Per Acre

Neighborhood or Locale (and Census tract #)	Persons per Acre		% Change 1990-2000	Single Family Dwellings per Acre		% Change 1990-2000
	1990	2000		1990	2000	
Beaverton (312)	10.4	11.7	13%	5.2	5.3	2%
Gresham (99.01, 100)	5.8	7.5	29%	2.1	3	43%
Hawthorne (13.02)	15.2	14.6	-4%	6.7	6.8	1%
Hillsboro (324.04)	6.3	7.1	13%	2.1	2.5	19%
Hillsboro new neighborhood (326.02)	1.9	9.4	395%	0.7	1.2	71%
Irvington (24.01, 25.01)	14	13.5	-4%	5.3	5.4	2%
NW 23rd St. (48)	33.2	37	11%	25.2	25.8	2%
Oak Grove (213, 214)	5.5	5.8	5%	2.2	2.5	14%
Outer SE PDX - I205 (6.01, 6.02)	9.5	10.7	13%	3.7	3.9	5%
Pearl District (51)	4.8	10.7	123%	2.1	6.8	224%
Sherwood (321.01)	0.7	3	329%	0.3	0.8	167%
Tigard (308.01)	5.6	6.4	14%	2.3	2.7	17%
West Linn (206)	3.1	4.2	35%	1.2	1.6	33%

Source: Metro DRC and U.S. Census Data

Further analysis of density changes in new residential neighborhoods, conducted for the only two years that data is available (1999 and 2000), revealed that the density of new residential developments in the UGB increased from 15 persons to 30 persons per gross[1] acre from 1999 to 2000. These results are derived from comparing population increases each year within the UGB with trends in new residential land consumption.[2] These results are based on only two years of data and may or may not indicate a trend. However, if the region were assumed to continue to consume land at 1999 and 2000 rates, it would take 12 to 15 years to consume the remaining supply of buildable land.[3] [Indicator 1.2f]

Table 2: Years Left to Consume Remaining Residential Land Based on 1999 and 2000 Consumption Levels

Year	1999	2000
Total Residential Buildable Land (acres)	18,244	16,751
Total Residential Land Consumed (acres)	1,468	1,087
New Population Accommodated	22,000	32,970
Years Left to Consume Total Buildable Land (at this year's rate)	12.4	15.4

Source: Metro DRC

A 2.6 percent (32,970) increase in total regional population from 1999 to 2000 was accompanied by a 26 percent (381 acres) decrease in residential land consumed over the 1999 level.

A study released in May 2002 by Northwest Environmental Watch cites research on urban form that that correlates higher densities with greater transportation choices. According to the Northwest Environmental Watch study, population density (in persons per acre) is a key determinant of the degree of automobile dependency of an area. The study states that neighborhoods with densities of less than 12 persons per acre are generally auto-dependent. Areas with 12 to 40 persons per acre are classified as transit-oriented, and pedestrian-friendly areas generally support more than 40 people per acre.

The Northwest Environmental Watch study found that in 1990, 23 percent of the population in the tri-county area (Clackamas, Multnomah and Washington counties) was located in areas with densities greater than 12 persons per acre. By 2000, 28 percent of the tri-county population was located in areas supporting densities of at least 12 persons per acre. For the same period, the study found that the percent of the population in Clark County, Washington located in areas of 12 or more persons per acre increased from 7 percent in 1990, to 13 percent in 2000.

A study by The Brookings Institution Center on Urban & Metropolitan Policy (July 2001) analyzed density trends in U.S. metropolitan areas and revealed that between 1982 and 1997, the nation's 17 percent increase in population was accompanied by a 47 percent increase in total urbanized land.[4] This land consumption pattern reflects a decline in overall U.S. metropolitan density, from 5 persons per urbanized acre in 1982 to 4.22 persons per urbanized acre in 1997. The 5.1 persons per acre density of the Portland-Vancouver area in 1997 was

[1] Gross residential acres do not deduct the portion of the vacant land that would be needed for streets, public utility easements, etc.
[2] These figures include all new residential land development and infill and redevelopment.
[3] Calculation is based on existing population and population estimates and available vacant residential land as of 1990 and 2000. This estimate does not deduct any land for public infrastructure, parks, etc.
[4] The Brookings Institution Center study considers total urbanized land to include residential, commercial, industrial, utilities, roads and highways, parks, schools, etc.

equivalent to the U.S. average in 1982. Table 3 below shows density data for a sample of western U.S. metropolitan areas with populations comparable to the Portland-Vancouver area.

Table 3: Comparable Metropolitan Density

Metropolitan Area	Population Change 1982 – 1997	Urbanized Land Change 1982 – 1997	Density (persons per gross acre) 1997
San Diego, California	38	44	7.5
Phoenix, AZ	73%	42%	7.2
Las Vegas, Nevada	131	53	6.7
Sacramento, California	48	50	5.6
Portland-Vancouver, OR	32%	49%	5.1
Seattle-Tacoma, WA	33%	51%	5.1
Salt Lake City-Ogden, UT	30%	50%	5.0
Denver-Boulder, CO	30%	43%	4.5
U.S. Metropolitan Average	17%	47%	4.22

Source: Center on Urban and Metropolitan Policy, "Who Sprawls Most? How Growth Patterns Differ Across the U.S.," The Brookings Institution Survey Series, July 2001.

Title 1 of the Functional Plan require local governments to adopt minimum density standards that increase the efficiency with which urban residential land is used. Table 3.07-1 of the Functional Plan sets housing and employment target capacities for local governments and requires them to have capacity in their zoning codes to achieve the targets or demonstrate why the target can not be achieved.

Between 1999 and 2000, the number of multifamily residential (MFR) units developed per net acre increased by 32 percent from 16.4 to 21.6, and the number of single family residential (SFR) units developed per net acre increased by 5 percent from 5.9 to 6.2. (The averages of these development patterns are shown in Table 4.) The result indicates that the way the region has been able to achieve more efficient residential development pattern is through multi-family and not multi-family development. Overall, the increases in units developed per acre represent greater efficiency of residential land use and progress toward achieving the 2017 capacity for housing units in Table 3.07-1 of the Functional Plan. [Indicator 1.2a]

Table 4: Average Units Developed Per Acre in the Metro Region and Clark County, Washington

Area	Years	Average Units Developed Per Acre SFU	MFR
Metro region	1999 – 2000	6	19
Clark County, Washington	1995 – 1999	4.9	16.2

Source: Metro DRC

Although a comparison of units developed in neighboring Clark County, Washington with this region is not precise due to differences in years and methodology, the average number of single family residential units developed per acre between 1995 and 1999 was 4.9 in Clark County. The City of Vancouver had the highest single family density in Clark County with 5.3 units per acre while the City of Battle Ground had the highest multi-family density in the county with 16.2 multi-family units per acre. (Clark County Plan Monitoring Report, July 2000)

Redevelopment and infill development, often times referred to as "refill," are recognized as important tools for increasing the efficiency of residential land use inside the UGB. Title 1 of the Functional Plan requires that local jurisdictions allow for refill by not prohibiting the partitioning

or subdividing of land where existing urban lots are two or more times the minimum lot size. The results of data collected to measure the amount of redevelopment and infill development occurring in the region show that a 26 percent redevelopment and infill rate was achieved between 1995 and 1998. This rate approaches the 20-year forecasted "refill rate" of 28.5 percent contained in the 1997 Metro Urban Growth Report. [Indicator 1.2c]

During a period from 1999 to 2000, land consumed or developed for industrial use in the UGB (in areas zoned industrial) decreased by approximately 1 percent (from 24,742 to 24,523 acres) and land consumed in non-industrial (commercial) zones increased by approximately 13 percent (from 13,459 to 15,166 acres). During the same period, industrial sector employment inside the UGB increased by 8 percent and commercial sector employment increased by 1.5 percent. The intent of the performance measures effort was to measure jobs per buildable acre, however, additional data points are needed to draw meaningful conclusions related to the efficiency of industrial and non-industrial land consumption. [Indicator 1.2b]

B. Accommodation of new population and jobs in the Metro UGB

"Capture rate" is a term used to describe the proportion of the four-county region (Clackamas, Multnomah and Washington Counties, Oregon and Clark County, Washington) new population and employment that locates, or is "captured" within the Metro UGB. The analysis of capture rate is of particular relevance to Metro's analysis of 20-year land need and the decisions related to expansion of the UGB. Capture rate was included as an indicator in the performance measures effort and available data shows that the proportion of population and households attracted to the UGB area from 1990 to 2000 was higher than from 1980 to 1990. However, the proportion of employment attracted to the UGB area from 1990 to 2000 was lower than during the 1980 to 1990 period. In the 20 years from 1980 to 2000, the household and employment capture rates inside the UGB were approximately 68 percent and 74 percent, respectively.

These actual rates show that the region is close to the 70 percent households capture rate and 82 percent employment capture rate assumed in the 1997 Urban Growth Report. (The 2002 Urban Growth Report assumes a 75 percent employment capture rate but does not include assumptions for households). Metro's Urban Growth Reports are prepared every five years to aid in the estimation of a 20-year land need. These reports include a capture rate for households and employment, but not population. The similarity in the percentage of employment (73 percent) and households (73 percent) attracted to the Metro UGB from 1990 to 2000 is an indication that the opportunity for both living and working in the region is increasing. [Indicator 1.1b]

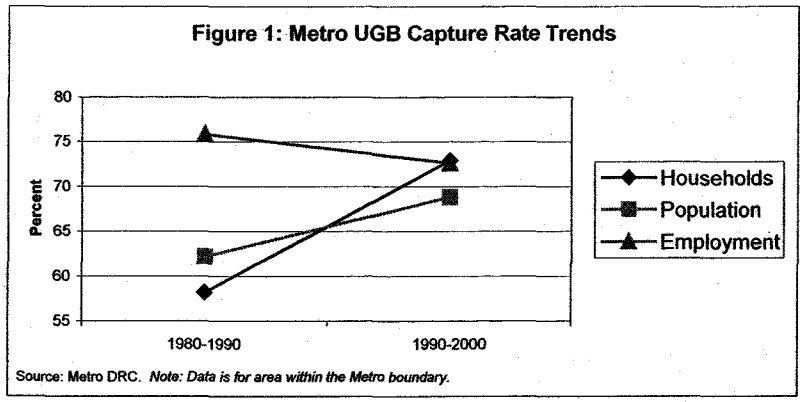


Table 5: Metro UGB Capture Rate Trend

Period	Household	Population	Employment
10-Year Capture – 1980 to 1990	58%	62%	76%
10-Year Capture – 1990 to 2000	73%	69%	73%
20-Year Capture – 1980 to 2000	68%	67%	74%

Source: Metro DRC *Note: Data is for the Metro boundary*

C. Focusing development in 2040 mixed use centers and corridors

Local government efforts to implement the 2040 Growth Concept by meeting the 2017 housing and employment targets for jurisdictions required by the Functional Plan. So far, the total land area designated for mixed use centers (central City, regional centers, town centers, station communities, main streets) is approximately 28,589 acres (or 12 percent of total land[5] in the Metro UGB). Corridors take up approximately 22,280 acres of land (or 9 percent of total land in the Metro UGB). It is important to point out that some local governments have not adopted firm 2040 design type boundaries or rezoned their designated 2040 centers to allow for mixed use.

Baseline data for the year 2000 shows that only 38 percent (350,994 jobs) of the 904,440 jobs in the UGB are located outside the boundaries of 2040 mixed use areas and corridors. Of the mixed use areas, the central city claims the largest share of UGB employment at 16 percent while corridors account for 14 percent. The percentages of employment located in other mixed use design types are illustrated in Figure 2 and Table 6.

Baseline data for the year 2000 shows that 70 percent of UGB population (896,923 persons) is located outside 2040 mixed use centers and corridors. Of the mixed use areas, the station communities claims the largest share of UGB population at 6 percent, while corridors account for 14 percent. The percentages of population located in other mixed use design types is illustrated in Figure 3 and Table 7.

Figure 2

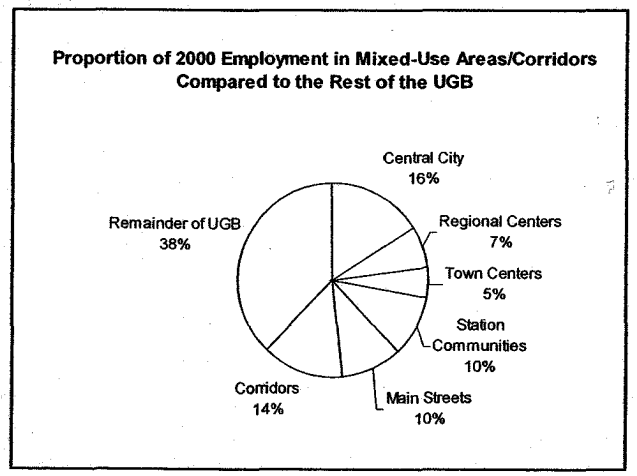
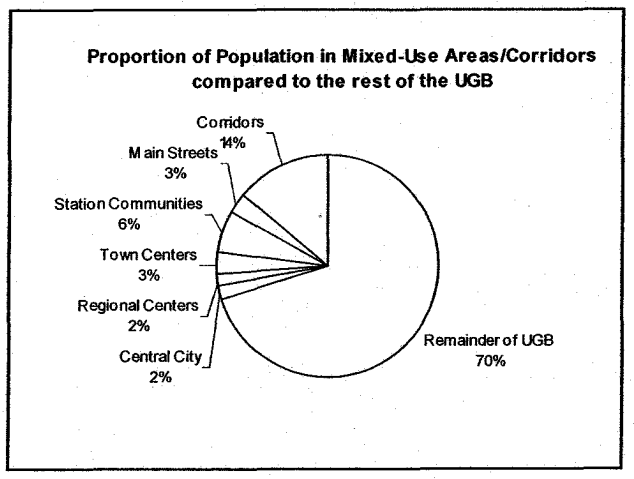


Figure 3



The 1997 Regional Framework Plan contains estimates of the amount of population and employment that would locate in 2040 mixed use areas and corridors in the future. (See the footnotes on the following page for an explanation of the difficulty of comparing these estimates to actual data.) The 2000 data shows that mixed use areas and corridors are accommodating less employment than estimated in the Regional Framework Plan (see Table 6). The 2000 data also shows that with the exception of town centers, less population is locating in mixed use centers than Regional Framework Plan estimates (see Table 7).

[5] This figure includes water features and protected land. In the future these features will be removed.

It is important to note that many local governments are still working to zone and rezone mixed use areas and that it is too soon to accurately assess whether new 2040 mixed use areas are becoming more or less mixed.

Table 6: Employment in the Mixed Use Areas and Corridors – Year 2000

Design Type Mixed Use Areas	Employment	% of MU & Corridors Total	% of UGB Employment	Regional Framework Plan Estimates of Future % of UGB Employment
Central City	144,723	26%	16%	20%
Regional Centers	63,079	11%	7%	11%
Town Centers	47,073	9%	5%	7%
Station Communities	88,045	16%	10%	15%[6]
Main Streets	87,651	16%	10%	NA
Mixed Use Sub Total	**430,571**	---	**48%**	---
Corridors	122,875	22%	14%	*See footnote on station communities*
Design Type Total	**553,446**	**100%**	**62%**	---
UGB TOTAL	**904,440**	---	---	---

Source: Metro DRC *Notes: Data is for the Metro UGB only.*

Table 7: Population in Mixed Use Areas and Corridors – Year 2000

Design Type Mixed Use Areas	Population	% of Mixed Use & Corridors	% of UGB Population	Regional Framework Plan Estimates of Future % of UGB Population
Central City	18,654	5%	2%	NA
Regional Centers	18,912	5%	2%	3%
Town Centers	42,732	11%	3%	3%
Station Communities	81,206	21%	6%	27%[7]
Main Streets	39,313	10%	3%	NA
Mixed Use Sub Total	**200,817**	---	**16%**	---
Corridors	183,730	48%	14%	*See footnote on station communities*
Design Type Total:	**384,547**	**100%**	**30%**	---
UGB TOTAL	**1,281,470**	---	---	---[8]

Source: Metro DRC *Notes: Data is for the Metro UGB only.*

[6] The Regional Framework Plan estimated that both Corridors and Station Communities would jointly accommodate 15 percent of new employment in the region.

[7] The Regional Framework Plan also estimated that Corridors and Station Communities would accommodate 27 percent of new households.

[8] The Regional Framework Plan estimated the proportion of jobs that could be accommodated in inner neighborhoods (15 percent), outer neighborhoods (10 percent), industrial areas (10 percent) and employment areas (14 percent). The Regional Framework Plan also estimated the proportion of households that could be accommodated in inner neighborhoods (28 percent), outer neighborhoods (28 percent), industrial areas (0 percent) and employment areas (5 percent).

The 2000 data also shows that the types of jobs locating in the mixed use centers and corridors are mostly in the service sector (178,770, or 42 percent of total) and retail sector (102,759 or 24 percent). About 18 percent of the service jobs inside the UGB are located in the central city, while 12 percent are located in station communities, 11 percent in main streets, 8 percent in regional centers, and 6 percent in the town centers. [Indicator 1.1c]

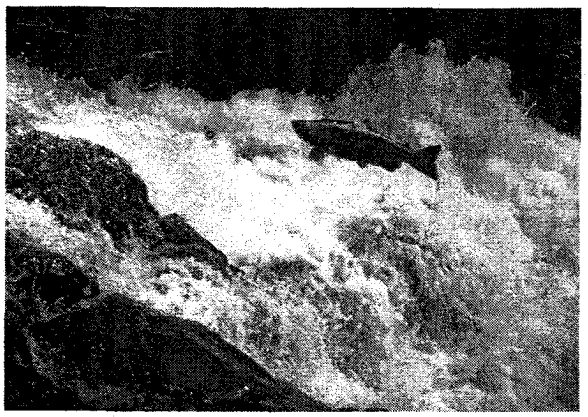
D. Conclusion

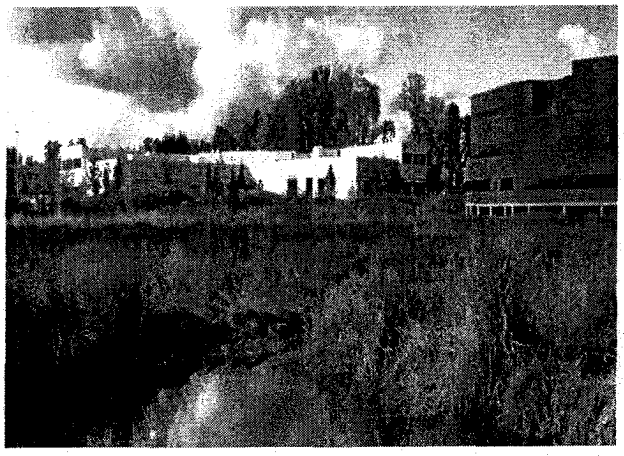
Available data used to prepare the performance measures report shows that the region is using new, residential land more efficiently. However, it is important to keep in mind that this information was based on only two years of data (1999 and 2000).

- Between 1990 and 2000, established neighborhoods become slightly more dense (less than one person per acre).
- Although the region is making progress towards accommodating more housing and jobs in the UGB (2017 target capacities), most of the increased capacity occurred as a result of new multi-family, and not single family development.
- Jobs and population accommodated in the UGB represents progress towards the 70 percent households capture rate and 82 percent employment capture rate assumed in the 1997 Urban Growth Report, which was used to estimate the 20-year land need.
- The amount of jobs (73 percent) and households (73 percent) attracted to the region that chose to locate inside the UBG during the 1990-2000 period is an indication that the region offers citizens the opportunity to live and work in the region.
- The progress of the region in focusing development in the mixed use centers could not be adequately measured at this time with the 2000 baseline data. It is therefore premature to conclude that mixed use centers are achieving desired densities or that the centers are becoming more or less mixed.
- With only one year of data available (2000), it is premature to state whether the estimates of the proportions of the region's jobs and population to be accommodated in the mixed use areas and corridors (included in the Regional Framework Plan) have not been achieved.
- Local governments in the Metro region have undertaken an extraordinary effort to rezone land to define the boundaries of their mixed use centers in their jurisdiction. The total effects of these efforts can not yet be measured.

E. What is Missing?

- The efficiency with which land is consumed for vehicle parking could not be measured at this time due to a lack of data. All indicators identified to assess trends in surface area parking and parking structure innovations require data from local governments that is not currently available. For this reason, the region's effort to economize the use of land by increasing the efficiency of land used for parking will be measured in the next performance measures effort.
- The amount of public sector jobs locating in the mixed use centers was identified as a measure of the amount of efforts to promote the 2040 Growth Concept but could not be measured due to data limitations.



2040 Fundamental: Protect and restore the natural environment through actions such as protecting and restoring streams and wetlands, improving surface and ground water quality, and reducing air emissions.

Protection and restoration of the natural environment is a vital component of the 2040 Growth Concept and a significant theme appearing in nearly every public document related to planning for the growth of the Metro region. Metro's emphasis on protection of the natural environment is a reflection of the consistent and ardent support that the public expresses for preserving these natural resources. Metro's approach to managing growth for the next 40 years attempts to strike a balance between an efficient land use pattern, and the protection and preservation of the natural identity and natural health of the Metro region.

Key Findings

A. Protection of natural resources through regulation (i.e., Title 3)

Metro's only policy that directly protects natural areas through regulation is Title 3 of the Functional Plan. This policy is enforced at the local level and is specifically intended to protect water quality and to prevent the loss of life/property as a result of flooding. The performance measures report recognized Title 3 as an important region-wide natural resources protection policy and identified a number of indicators to measure its effects. Title 3 was adopted in 1998 and took a number of years for local governments to implement, and for this reason much of the

data collected represents a time period of less than three years. Future data collection for these indicators will yield more accurate results and allow for the identification of trends.

Adopted in 1998, Title 3 provides an estimated 30,505 acres of sensitive lands in the Metro boundary with varying degrees of protection. The number of acres regulated by Title 3 is an estimate because most of the Title 3 natural features (steep slopes, wetlands, etc.) can only be accurately measured through field delineation. Indicator 2.1b found that an estimated 775 miles or 87 percent of the region's streams (and the land along those streams) are regulated by Title 3. [Indicator 2.1a]

Title 3 restricts development in areas within a specified distance of certain sensitive areas (depending on condition and location) and is intended to preserve vegetation and the water quality of these streamside/riparian areas. When Title 3 was adopted in 1998, 5,280 acres or 51 percent of the 10,434 total acres of Title 3 vegetated corridor areas, were developed. By 2000, an additional 363 acres of the Title 3 vegetated corridors were developed, increasing the total developed areas to 54 percent. Some development in Title 3 streamside areas is expected and allowed under Title 3. However, continued increases in developed land within these areas could indicate that elements of Title 3 are ineffective or the provisions of Title 3 area not being effectively enforced. Further monitoring will provide better understanding of what changes, if any are occurring. [Indicator 2.2a/b]

DEQ water quality monitoring in the Metro region show that the 12 streams monitored had significant increase in general water quality during the 1991-2000 period, however, most of these rivers experienced decreased water quality during the low flow summer months. [Indicator 2.9a]

From 1998 to 2000, vacant land in the floodplain area decreased by 568 acres or 9 percent (from 6,649 to 6,082 acres). (At this rate, all remaining floodplain area could be developed in approximately 20 years.) Title 3 does not prohibit development in the floodplain but instead, contains a balance cut and fill provision that is intended to limit the loss of flood storage capacity in the floodplain and prevent the loss of life and property as a result of flooding. However, the trend towards development of the floodplain is worthy of note. [Indicator 2.2c]

B. Protection of natural resource areas through acquisition by Metro and local governments

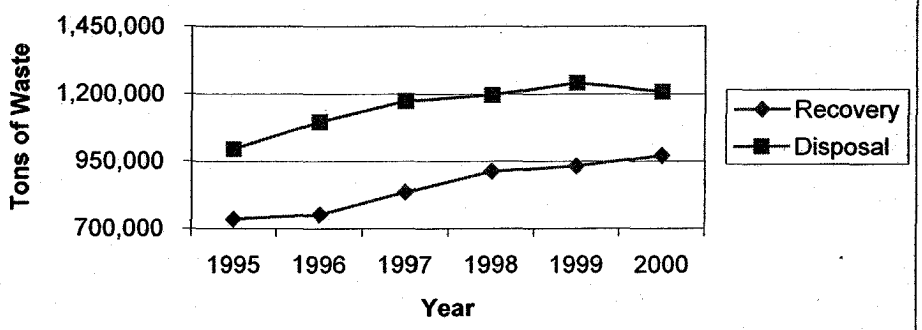
Metro's $135.6 million open spaces, parks and streams bond measure was approved by voters in May 1995. Metro has exceeded its overall goal of acquiring 6,000 acres of natural areas. As of December 24, 2002, 7,877 acres of greenspaces have been acquired. Through these acquisitions, Metro has acquired more than 62 miles of stream banks.

Metro estimated that the $25 million local share portion of the 1995 bond measure would allow local governments to acquire approximately 270 acres of local open space. Though actual local share acres acquired to date are not available, as of April 30, 2002, local governments had spent $16 million in the acquisition of local open space areas. Note: Many times, local share acquisition funds were pooled with Metro acquisition funds to purchase a number of properties jointly. This practice means that overlap exists in the figures for both Metro and local share acquisitions. Also, some local share acquisition projects include improvement costs. Local governments also spend their own (non-bond measure) resources in the acquisition of local open spaces.

C. Management of waste and protection of water quality

The change in the amount of waste recovered from 1995 to 2000 (735,230 tons to 970,850 tons or 32 percent) has increased faster than the change in the amount disposed (995,035 tons to 1,207,348 tons or 21.3 percent). During the same period, the per capita amount recovered increased by 20 percent from 0.56 tons (1,120 pounds) to 0.67 tons (1,338 pounds) per person, while the per capita amount disposed increased 9 percent from 0.76 tons (1,520 pounds) to 0.83 tons (1,663 pounds) per person. The per capita amount generated increased 13 percent from 1.33 to 1.51 tons per person during the same period. [Indicator 2.10a] The amount of hazardous waste collected per household increased by 7 percent between 1995 and 1996, by 13 percent in both 1997 and 1998 and by 11 percent from 1999-2000. [Indicator 2.10b]

Figure 4: Tons of Solid Waste Recovered and Disposed Within the Metro Boundary



Source: Metro Solid Waste and Recycling Department
Note: Calculations are based upon the population within the Metro UGB in the specified years. These calculations include waste from households, businesses, and construction and demolition activities.

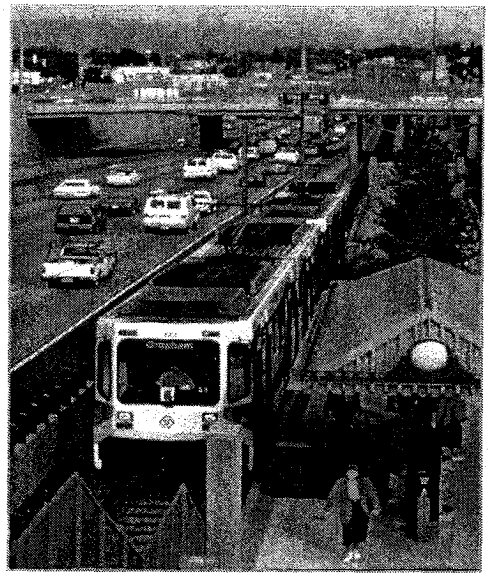
D. Conclusion

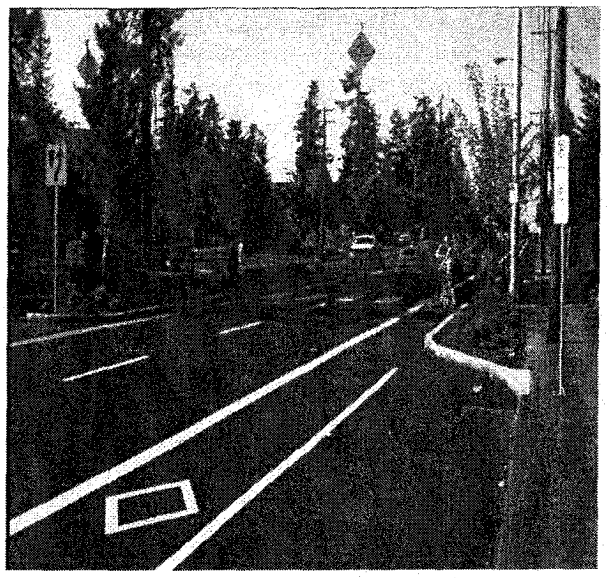
- The progress made by the region in protecting and preserving the natural identity and natural health of the Metro region is reflected in the substantial amount of sensitive land (30,505 acres or 87 percent of the region's streams) that is receiving some degree of protection by Title 3.
- Increases in developed land within Title 3 vegetated corridors may indicate that elements of Title 3 are ineffective or the provisions of Title 3 area have yet to be effectively enforced. Future performance measures will provide better understanding of changes in these areas.
- Though not a direct measure of Title 3, data on development in floodplains shows that at the current rate of development in the floodplains, all remaining floodplain area could be developed in approximately 20 years.
- The indicators identified to evaluate the provisions of Title 3 will benefit from additional years of data and will allow for a more accurate assessment of the effectiveness of these policies.
- The approval of a bond measure in 1995 to acquire open spaces parks and streams clearly illustrates the commitment of the citizens of the region to preserving natural areas from future development. Metro open space acquisitions have outpaced targets and expectations and continue to target and acquire natural areas.

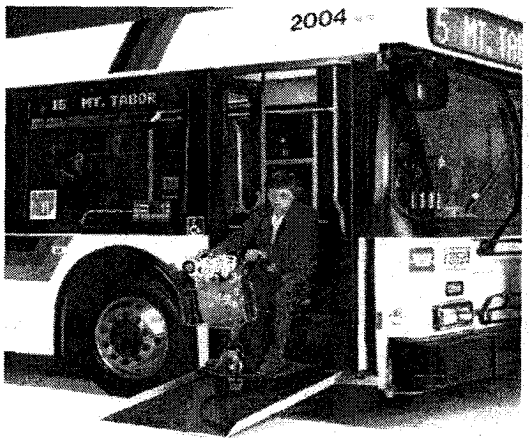
- Metro is currently developing a region-wide program that will address the protection of fish and wildlife habitat (Goal 5 of the Oregon Statewide Planning Goals). These efforts will serve as a complement to Title 3 and will provide additional protection to the region's sensitive natural areas. The development of the Goal 5 program is requiring substantial work to inventory and catalog areas throughout the region in various stages of environmental function and health. This work will create data that can be analyzed in the future to assess this 2040 fundamental.

E. What is Missing?

- The assessment of the effect of Title 3 in preserving the region's wetlands would require data from local governments and the Oregon Department of State Lands that is not currently available. The Oregon Department of State Lands processes requests for relocation and altering of wetlands.
- Trends in the conversion of non-regulated and forested tree canopy land in riparian areas could not be measured at this time due to data limitations. Improved inventories of vegetation and tree cover that are currently being developed will prove very helpful in future assessment of changes over time in the region's tree canopy.







2040 Fundamental: Provide a balanced transportation system including safe, attractive facilities for bicycling, walking and transit as well as for motor vehicles and freight.

The Regional Transportation Plan (RTP) defines transportation policies for the Metro region and lists the projects that implement these policies. The plan calls for a balanced transportation system that includes safe and attractive facilities for all modes of transportation. The plan focuses on providing accessibility to, and within 2040 land use areas that are expected to accommodate most of the region's population and jobs; the central city, regional and town centers, industrial areas, main streets and station communities.

The consequence of not providing accessibility with a balanced transportation system to, and within these 2040 land use areas is increased pressure on private development to locate outside of these central areas in a sprawling, land use pattern seen in many other metropolitan regions. This would weaken the region's economy, increase the miles of vehicle travel, and increase public costs to provide and maintain the urban infrastructure needed to serve such a sprawling land use pattern.

Key Findings

A. Transportation System

Annual capital, preservation and maintenance needs compared to spending:

Approximately $635 million is spent annually on transportation in the Metro area on capital, preservation and maintenance. This includes spending for roads, public transportation, bike facilities, sidewalks and miscellaneous other projects. 70 percent of that total ($430 million) goes to preserve and maintain the existing system of roads, bridges and other facilities and to operate the transit system. In order to implement the $8 billion package of priority projects, the region should be investing $375 per year in new capital projects. As can be seen, investments in all modes of travel are lagging.

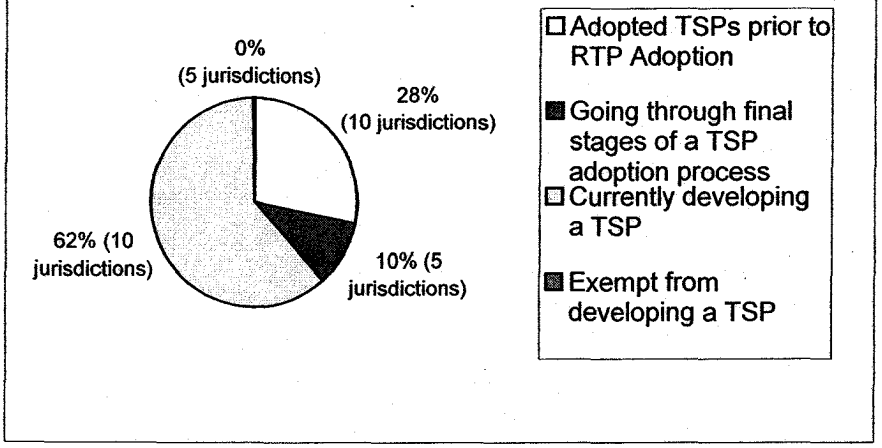
Average Annual Regional Transportation Capital Needs and Annual Capital Spending (millions of $)

Travel Mode	Average Annual Regional Need (2000-2020)	Annual Spending (2000)
Roads, Highways, Bridges, Freight	$197	$91
Transit	$157	$54
Boulevards	$8.30	$2.50
Pedestrian and Bicycle	$12.60	$5
Total	**$375**	**$152.50**

Transportation System Plan and Regional Transportation Plan Priority System

No city or county in the Metro region has an adopted Transportation System Plan (TSP) that has been found to implement all the policies and requirements identified in the 2000 RTP. However, 10 jurisdictions (28 percent of the region's total land area) had adopted a TSP prior to the adoption of the 2000 RTP. These plans address many of the requirements included in the 2000 RTP, but may need to be amended to fully address the 2000 RTP. In addition, five jurisdictions (10 percent of the region's total land area) are currently in the final stages of adopting of a TSP. Seven jurisdictions (62 percent of the region's total land area) are still developing their plans. Five jurisdictions (less than 1 percent of the region's total land area) have less than 2,500 residents and are not required to develop a TSP under the Transportation Planning Rule. [Indicator 3.1a]

Figure 5: Percent of Land Area and Jurisdictions in the Metro Region with Adopted TSPs



Approximately .9 percent ($34 million) of the RTP Priority System[9] motor vehicle, bridge and freight projects were funded in the most recent six years of regional flexible fund allocations. Assuming regional flexible funds continue to provide approximately 7 percent of annual capital spending of these projects, only 46 percent of the RTP Priority System motor vehicle, bridge and freight projects will be constructed by the end of 20 years. [Indicator 3.1b]

Of the RTP Priority System bicycle and pedestrian projects, 6.2 percent ($14.6 million) were funded in the most recent six years of regional flexible fund allocations. Assuming regional flexible funds continue to provide approximately 49 percent of annual capital spending of these projects, only 39 percent of the RTP Priority System bicycle and pedestrian projects will be constructed by the end of 20 years. [Indicator 3.1c]

Of the RTP Priority System transit projects, 1.1 percent ($35.6 million) were funded in the most recent six years of regional flexible fund allocations. Assuming regional flexible funds continue to provide approximately 11 percent of annual capital spending of these projects, only 34 percent of the RTP Priority System transit projects will be constructed by the end of 20 years. [Indicator 3.1f]

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[9] The 2000 RTP lays out the 20-year priorities for road, transit, freight, bicycle and pedestrian improvements, consistent with federal requirements of TEA-21 and state requirements. The RTP was developed to include separate layers of planned projects and programs that respond to differing federal, state and regional planning mandates. These layers are:

- the **financially constrained system**, which responds to federal planning requirements, including consistency with federal air quality standards, and is based on a financial forecast of limited funding over the 20-year plan period
- the **priority system**, which responds to state planning requirements, and assumes that significant new revenue must be identified in order to provide an adequate transportation system over the 20-year plan period
- the **preferred system**, which responds to regional planning policies adopted as part of the 2040Growth Concept and Regional Framework Plan, including specific system performance measures.

Of the RTP Priority System boulevard projects, 7.8 percent ($12.9 million) were funded in the most recent six years of regional flexible fund allocations. Assuming regional flexible funds continue to provide 89 percent of annual capital spending of these projects, only 30 percent of the RTP Priority System boulevard projects will be constructed by the end of 20 years. [Indicator 3.1g]

B. Local Street Connectivity

All jurisdictions in the Metro region have amended their development codes to require 10 street connections per mile in new developments with new streets so as to reduce delay on the regional system and decrease arterial traffic.

Based on a survey of seven study areas, portions of the region are meeting regional street connectivity requirements as measured by a standard of 100 intersections per square mile, while other areas will need to leverage new growth to bring existing street systems up to regional connectivity standards. [Indicator 3.3a]

C. Congestion Policy

Vehicle volumes continued to grow on the freeway system between 1997 and 2000, reflecting growth in population and jobs. The freeway systems continue to provide adequate mobility within the region, connecting the central city, regional centers, industrial areas and intermodal facilities and other regional destinations. Increased traffic volumes in the I-205 corridor reflects the residential growth in Clackamas and Clark counties. The growth in both employment and population resulted in large increases of freeway traffic on the Sunset Highway and Highway 217.

The No-Build Scenario[10] predicts increases in travel times in many of the key corridors and does not meet the policy objectives of the RTP and 2040 Framework. The Preferred System Scenario meets the policy objectives, while accepting a certain level of congestion. [Indicator 3.4a]

The following transportation results are forecasted with the implementation of the Preferred System:

- In most parts of the region, evening two-hour peak period auto travel times will increase from 1994 rates while overall transit travel times will decrease. The largest increase in auto travel times is expected to occur along I-205 from I-5 to Gateway; I-5 north of the central city to Vancouver, Washington; Highway 224 from Milwaukie Regional Center to Clackamas Regional Center and between Terminal 6 and I-205 along Northeast Portland Highway.

- Transit travel times are faster throughout much of the region, reflecting expanded service, including rapid bus and light rail and transit preferential improvements in many corridors. The largest decreases in transit travel times are expected to occur in corridors where rapid bus or light rail service is proposed. In the Preferred System Scenario transit travel times are generally less than 1.5 times the two-hour peak period auto travel time for the same

[10] No-Build Scenario shows where additional regional transportation system needs are created by the estimated population and employment growth if no new transportation projects or programs are constructed.

corridor in all of the corridors examined except for I-205 between Gateway and Oregon City Regional Centers.

- Truck hours of delay are expected to increase more than five-fold during the evening two-hour peak period between 1994 and 2020. This represents a change from 4 percent of truck hours experiencing delay in 1994 to nearly 13 percent of truck hours experiencing delay during the evening two-hour peak period. Overall, the preferred system results in adequate mobility and access for freight movement in the region.

D. Modal Targets

Gross transit rides: Gross transit rides have grown an average of 6.6 percent per year in the last five years. This rate of growth is more than the 4.1 percent average annual growth in gross transit rides (by 1.5 percent) needed to meet the ridership projected for transit with implementation of the RTP Priority System by the year 2020. [Indicator 3.5c]

Transit rides per capita: Transit rides per capita have grown at an average annual rate of 3.2 percent in the last five years. This rate of growth is greater than what is needed to meet ridership objectives of the transit portion of the RTP Priority System if sustained through the year 2020. [Indicator 3.5d]

Originating rides by rail and bus: Between 1998 and 2000, the average weekday originating rides by bus and rail increased by 27 percent. Total originating rides by rail and bus fixed route services increased an average of 6.99 percent per year over the last five years. This rate of growth is short of the 8.11 percent average annual growth in originating rides (by 1.12 percent) that is needed to meet the transit trips projected in the RTP Priority System by the year 2020. [Indicator 3.5e]

Service Hours per Capita: Total service hours per capita for TriMet fixed route services increased an average of 1.12 percent per year over the past four years. This rate of growth is short of the 4.07 percent average annual growth rate projected in the RTP Priority System by 2.95 percent. [Indicator 3.5f]

Change in transit use in 2040 centers (central city, regional centers, town centers): As reliable data for bus and light rail boardings in previous years are not available, current data will form the data baseline for measuring change in transit use in future years in the central city and regional centers. [Indicator 3.5h]

Vehicle miles traveled per capita: Vehicle miles traveled (VMT) per person per day in the region has fluctuated each year from an average of 6 percent in 1993 to decreases of 4 percent in 1994 and 1997. The average of these fluctuations between 1990 and 2000 equates to an increase of .64 percent per year. The RTP 2020 Priority System only projects a .07 average annual increase in VMT per capita. While the average growth rate of VMT in the last 10 years is slightly higher than regional goals the region may be able to meet a lower per capita growth rate if recent trends of VMT reduction continues. [Indicator 3.5i]

E. Air Quality

From 1996 to 2002, the region added a total of 33 bikeway miles and over 12 miles of pedestrian ways which far exceeds the average biennial miles required in the Ozone Maintenance Plan. The region continues to add bike and pedestrian ways in an effort to provide

convenient alternatives to the single occupant vehicle, a major contributor to air quality impairments.

The average annual increase in transit service hours since 1996 has been 2.84 percent. This increase far exceeds the 1.5-percent average annual increase called for in the air quality maintenance plan. The region has been adding light rail service hours at an even faster rate. One light rail train set equals the passenger carrying capacity of approximately six buses, therefore adding light rail service is more valuable for improving air quality than the equivalent bus service hours. [Indicator 3.7a]

From 1996 to 2001, the carbon monoxide standard has not been exceeded. The ozone standard was exceeded only in 1998 due to high temperature however the exceedence did not trigger a violation of the Clean Air Act. [Indicator 3.7b]

A comparison of the Portland metropolitan area ozone violations (of the Clean Air Act) with other metropolitan regions around the U.S. since adoption of the 2040 Growth Concept shows that, in general, the Portland region has improved its air quality and complies with the Clean Air Act standards. A violation can be caused by a combination of heat, vehicle miles of travel, and local wind and topography.

Table 8: Air Quality: Comparison of Metropolitan Regions: Summer Days Ozone Violation of the Clean Air Act

Metropolitan Regions	**1996**	**2000**
Atlanta, GA	25	26
Denver-Boulder, CO	0	2
Houston, TX	26	42
Minneapolis-St. Paul, MN	0	0
Phoenix-Mesa, AZ	17	10
Pittsburgh, PA	11	4
Portland- Vancouver, OR-WA	**1**	**0**
Sacramento, CA	42	29
San Diego, CA	31	14
San Francisco, CA	0	0
San Jose, CA	7	0
Seattle-Tacoma, WA	6	1

F. Conclusion

- TSPs adopted by local jurisdictions prior to the adoption of the 2000 RTP are expected to be amended to the new requirements included in the 2000 RTP.
- The proportions of annual capital spending on motor vehicle, bridge, freight, bicycle, pedestrian, transit and boulevard projects is very limited and may result in 30 to 45 percent of the RTP Priority System projects being constructed during the current 20-year planning period.
- Transit rides, including transit boarding rides compared to the Metro area population has out performed the projections in the RTP Priority System.
- The growth in transit service compared to growth in population and the levels of bikeway miles and pedestrian ways which far exceed the requirements in the Air Quality Maintenance Plan and are a good indication of the region's efforts to improve air quality.

- The average growth rate of vehicle miles traveled per capita is higher than the regional goals adopted in the RTP.

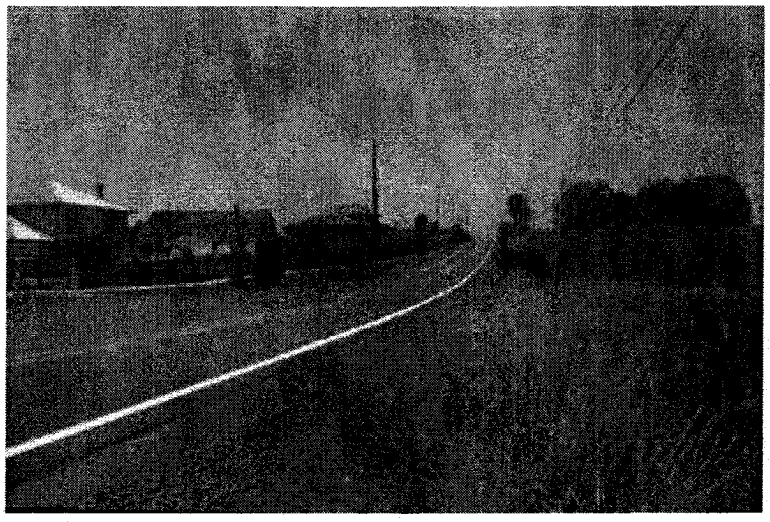
G. What is Missing?

- Some indicators identified to assess the region's progress toward implementing regional motor vehicle, pedestrian, bicycle, freight, transit and boulevard systems adequate to serve the 2040 Growth Concept were not measured due to data limitations. These measures include the percent of each mode completed, and percent of trips made by bike, walking and transit to, from and within 2040 centers.

- Indicators to assess the congestion and safety of freeway, arterial and street intersections were not measured due to data limitations. These indicators include the degree to which jurisdictions have adopted RTP LOS policies versus a higher LOS policy, and the degree to which major streets located in 2040 centers are exceeding the RTP LOS standard over time. Related indicators that could not be measured include the degree to which regional highway corridors and industrial corridors are exceeding the RTP LOS standard over time, and the total direct dollar loss due to freight delay.

- Accessibility measures such as the change in vehicle miles traveled per person over time, the change in vehicle miles traveled per low income and minority person over time, and how well the general population and employees are served by public transportation will be measured in the next phase.

- The value of existing transportation infrastructure should be determined in future performance measures, including the value of roadways, bike and pedestrian ways and transit infrastructure. The purpose of this data would be to determine how past transportation investment impact the balance of our transportation system.



2040 Fundamental: Maintain separation between the Metro UGB and neighboring cities by working actively with these cities and their respective counties.

Metro's planning efforts address concerns that growth of the Metro area could negatively affect the small cities that are connected to the Metro area by a major highway (Sandy, Canby, North Plains, etc.). Policy makers fear that the Metro area could eventually expand to merge with neighboring cities and this could lead to a loss of identity and the sense of individual community valued by the residents of these communities. Policy makers were also concerned that if population attracted to the region is not adequately accommodated in the Metro UGB, neighboring cities may be burdened with high levels of growth. This could create untold problems for these communities and have numerous negative effects on the Metro region.

Key Findings

A. Separation of Communities and Preservation of Rural Character

Data collected to measure the growth pressure placed on areas outside of Metro's UGB (including Clark County, Washington) between 1990 and 2000 shows that the proportion of employment (28 percent) locating outside the Metro UGB exceed Metro's earlier estimates. The proportion of population and households locating outside the Metro UGB in the 1990-2000 period was 31 percent and 27 percent, respectively. (Metro's 1997 Urban Growth Report assumed that only 18 percent of the region's employment and 30 percent of the region's households would locate in the three-county area outside of the Metro UGB, and in Clark County by 2017. A non-Metro population assumption was not made in the Urban Growth Report.) For more information on capture rate see page 13. [Indicator 4.3]

Table 9: Non-Metro Capture Rate (1990 to 2000 period)

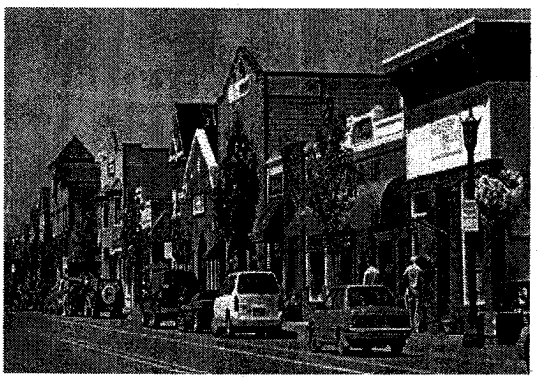
Characteristics of Growth	In Metro	Three County Non-Metro	Clark County	Total*
Employment	73%	**11%**	17%	100%*
Population	69%	**3%**	28%	100%
Households	73%	**0%**	27%	100%

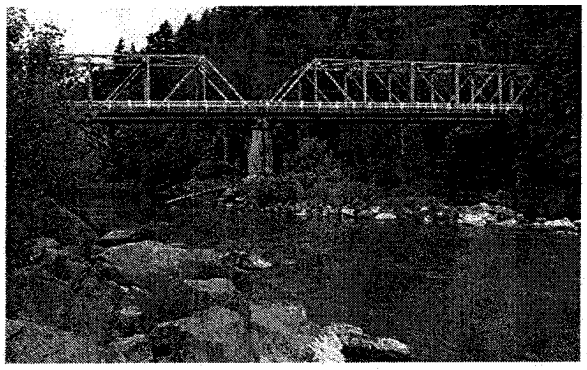
Source: Metro DRC
**Note: Total percent may not be exactly 100 percent due to rounding.*

UGB information was collected to measure the degree to which intergovernmental agreements (IGA) between Metro and the cities of Canby and Sandy are preserving a separation between the Metro UGB and these cities. The data collected shows that the Metro Council approved an expansion of the UGB that included 86-acres within the Sandy/Metro IGA area. This area is located south of the City of Gresham between Telford Road and US 26. In addition, approximately 12 acres of land contained in the Canby/Metro IGA area was brought within the Metro UGB as a result of mapping inconsistencies. The City of Gresham, one of the key proponents of Metro expansion into the Sandy/Metro IGA area and the likely candidate for governance of this area, testified before the Metro Council that the inclusion of the area was critical for secondary access and local circulation from US 26 to Springwater, UGB expansion area to north where industrial development is planned.

B. Conclusion

- Data shows that more of the households and jobs that are attracted to this region are locating outside of the Metro UGB than assumed in the Metro's 1997 Urban Growth Report.
- Encroachment into the IGA area separating Metro UGB and the City of Sandy UGB due to Metro UGB amendments was supported by the City of Gresham to provide access to local circulation to an additional UGB expansion area.
- Additional measures may be needed to assess whether the rural residential and resource-zoned land that exists in the areas between Metro and neighboring cities and supports predominantly agricultural uses is converting to rural development.
- Future performance measures efforts may need to use aerial photography and building permit records and/or examine county tax assessor records in order to better understand the degree to which the rural character and separation of communities in these areas is being preserved or lost.





2040 Fundamental: Enable communities inside the Metro UGB to preserve their physical sense of place by using, among other tools, greenways, natural areas, and built environment elements.

Metro's Regional Framework Plan stresses the importance of the relationship that local partners within the region have with one another. "The planning and growth management activities of many jurisdictions" the Regional Framework Plan states, "affect and are affected by the actions of other jurisdictions in the region." Implicit in this statement is the fact that the choices made in one community have the potential to affect adjacent communities in both positive and negative ways. The Regional Framework Plan addresses this interconnectivity and contains comprehensive approaches for land use and transportation planning that cross local jurisdictional boundaries. The Regional Framework Plan also stresses the importance of individual communities taking steps to establish and preserve unique community character.

Note on measurement of this fundamental
In order to identify indicators for measuring whether community character and the unique identity of individual jurisdictions within Metro are being preserved or lost, Metro surveyed jurisdictions and solicited information on the defining physical characteristics of each community. This preliminary information will be used as the foundation of future performance measures efforts related to this 2040 Fundamental.

Physical characteristics identified by local governments as helping to define community sense of place are as follows:

City of Beaverton

1. Beaverton is a large and diverse community geographically, with varied topography and neighborhoods. There is no one outstanding physical feature associated with the community, but several features contribute positively (and sometimes negatively) to the city's image, including the following:
   i. Buildings in the city's Old Town area, the original downtown, including the Beaverton Bakery
   ii. Commercial development along Canyon Road and Cedar Hills Boulevard, viewed by many people as they drive through the city
   iii. The Beaverton Town Square, a shopping area with an internal courtyard area that has a tall clock tower at its center
   iv. Griffith Park and surrounding office buildings, the location of the annual Taste of Beaverton
   v. The city's many residential areas which make Beaverton a good place to live
   vi. Cooper Mountain in the southwest corner of the city, which is the highest point in the city and is the location of several tree groves that are visible from other parts of the community
   vii. The Tualatin Hills Nature Park in the western part of the city, a large natural area bisected by two major streams, Beaverton Creek and Cedar Mill Creek
   viii. The Tualatin Hills Park and Recreation District Recreation Center, a large complex serving Beaverton and the surrounding area
   ix. Several large office/industrial campuses in or adjacent to the city limits including the Nike campus, the IBM campus, the Tektronix campus, the Cornell Oaks campus and development along Nimbus Avenue.
2. A prominent physical feature of the city in the making is the Round mixed use development at the Central Beaverton MAX station. During the last few years, this site has had a negative impact on the city's physical image due to uncompleted buildings that have stood there. However, construction of the development is underway again. At its completion, this development should be a positive physical presence in the downtown Beaverton area.

City of Cornelius

1. Tualatin Valley Highway (Hwy. 8) bisects the city east to west.
2. Southern Pacific Railroad and Portland & Western Railroad both run through Cornelius, the first just south of Tualatin Valley Highway, and the second just north of Tualatin Valley Highway.
3. Tualatin River and related green space form a natural boundary along the southern city limits.
4. Council Creek and related green space form a natural boundary along the northern city limits.
5. Job's Ditch, a seasonal drainage way runs north/south, roughly connecting Council Creek and the Tualatin River near the eastern city limits.

6. City Hall, three elementary schools, Central Cultural, Virginia Garcia Clinic and half a dozen churches are nodes of activity in this community.
7. The Main Street District envisioned in our Comprehensive Plan but yet undeveloped will be a central physical, economical and social element of our community's sense of place.

City of Fairview

1. Columbia River
2. Blue and Fairview lakes
3. Fairview Creek and associated streams and wetlands
4. Fairview and Metro parks systems
5. I-84
6. Union Pacific Railroad Mainlines
7. Historic Original Fairview
8. The Village

City of Gresham

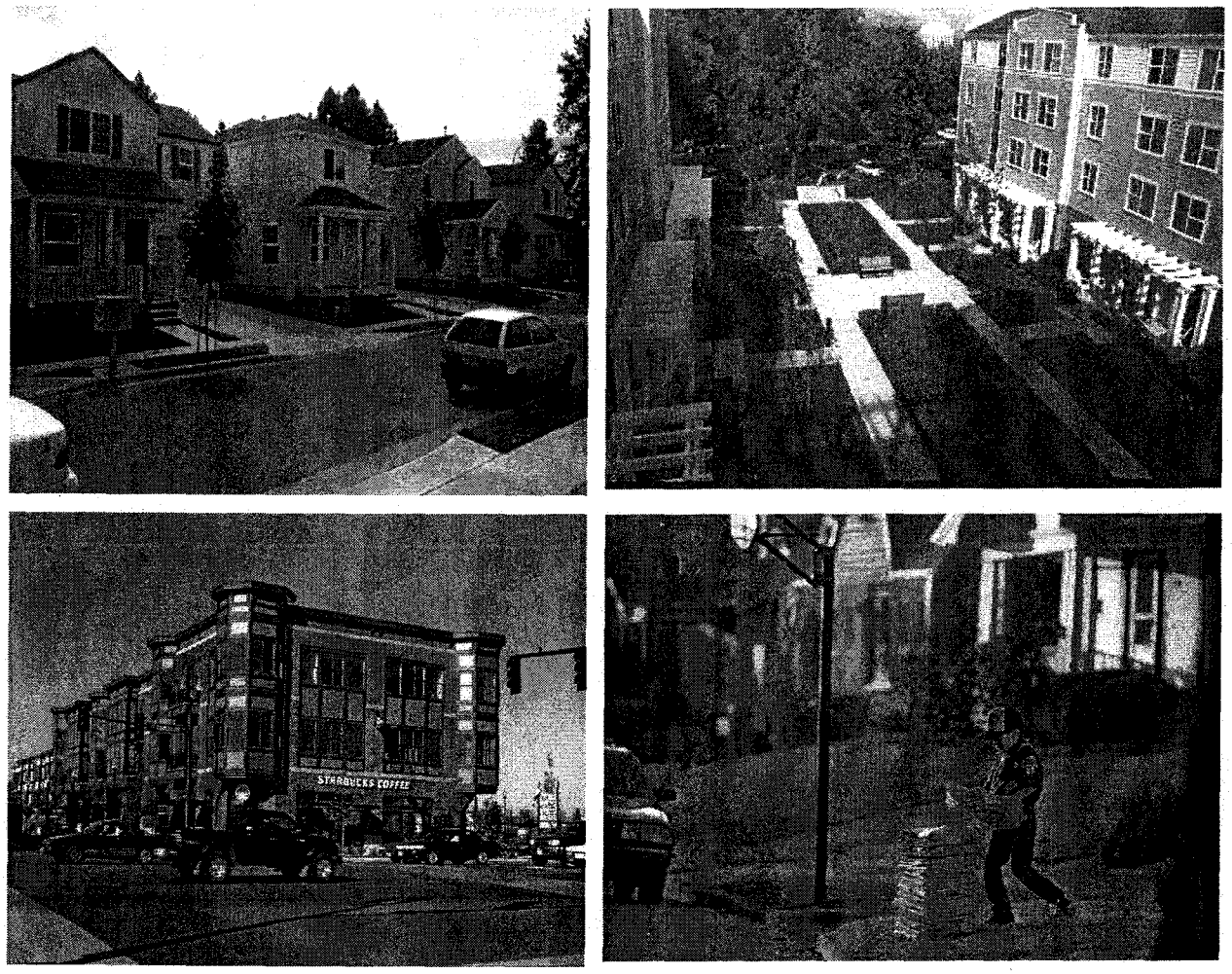
1. Historic downtown Gresham
2. Gresham Civic Neighborhood development on light rail
3. Springwater Trail – multi-use path with Johnson Creek greenway
4. Wooded buttes in south Gresham
5. Inter-connected park and open space trail system
6. Views of Mt. Hood
7. City borders farms and forests (south and east)
8. Columbia River
9. Bedroom community without adequate economic base
10. Disconnected state highway system (I-84 to US 26)
11. Big, congested and ugly street grid

City of Tigard

1. Fanno Creek, which flows north-south through the middle of the city and is the backbone of the city's trail network
2. The Tualatin River, which defines the city's southern boundary and provides a major aesthetic and recreational resource for community residents
3. Cook Park, a 79-acre regional park, located along the Tualatin River
4. Downtown Main Street, the community's historic center
5. Washington Square shopping mall, the west side's retail hub

City of Troutdale

1. Gateway to the Columbia River Gorge National Scenic Area
2. Sandy River – Recreational opportunities include swimming, fishing, kayaking, smelt runs
3. Beaver Creek Canyon runs through the city
4. Revitalized downtown with trendy shops, boutiques and specialty stores
5. Troutdale Airport
6. Small-town atmosphere



2040 Fundamental: Ensure availability of diverse housing options for all residents by providing a mix of housing types as well as affordable homes in every jurisdiction.

A diverse range of housing options contributes to the overall livability of the region by allowing citizens from all income levels to make housing choices based on their individual needs. A mix of housing that ranges in size, density, and cost also compliments the goals of the 2040 Growth Concept to create concentrations of housing and employment in mixed use centers served with a balanced transportation system. Multi-family housing and a diversity of housing options are important to the creation of mixed use centers. A mix of housing types is also directly related to the efficiency of land use within the UGB and affects the amount of new land that must be brought within the UGB in order to accommodate new growth (see 2040 Fundamental: "Encourage Efficient Use of Land").

Metro housing policies adopted in January 2001 recognize the relationship between the availability and use of land and the affordability of housing and other goods and services. In order to minimize the negative effects of this relationship, voluntary affordable housing goals were adopted for the region and local jurisdictions, and land use tools for affordable housing identified for implementation across the whole region.

These housing policies are primarily designed to encourage implementation of land use policies that would make housing more affordability in this region. Although local governments are required to report their progress, in providing additional affordable housing opportunities no Metro policy requires local governments to construct or subsidize affordable housing. Local government efforts to implement the policies will be evaluated in 2004 and will be included in the next performance measures report.

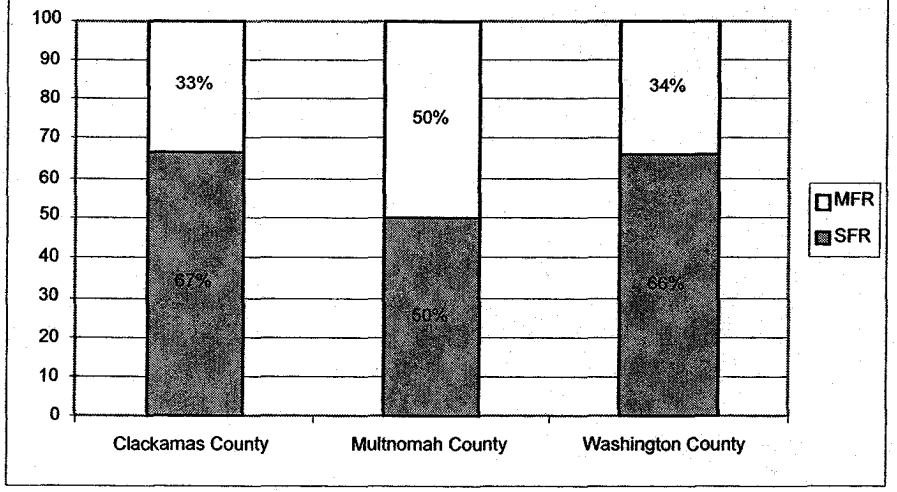
Key Findings

A. Diversity of housing (single family and multi-family residential)

Growth in the number of new multi-family housing units is outpacing the growth in number of new single family units. Between 1996 and 2000, the number of single family dwelling units increased by roughly 6.7 percent while the number of new, multi-family units increased by roughly 13.8 percent. The majority (40 percent) of single family units built in the region (per tax lot) between 1996 and 2000 consisted of lot sizes between 5,000 and 7,500 square feet, while the remaining units were built on lots under 5,000 square feet size (26 percent), lots between 7,500 and 10,000 square feet (20 percent), and lots over 10,000 square feet (14 percent). Single family units built on lots under 5,000 square feet in size increased from 1,071 in 1996 to 2,490 in 2000, a 132 percent increase.

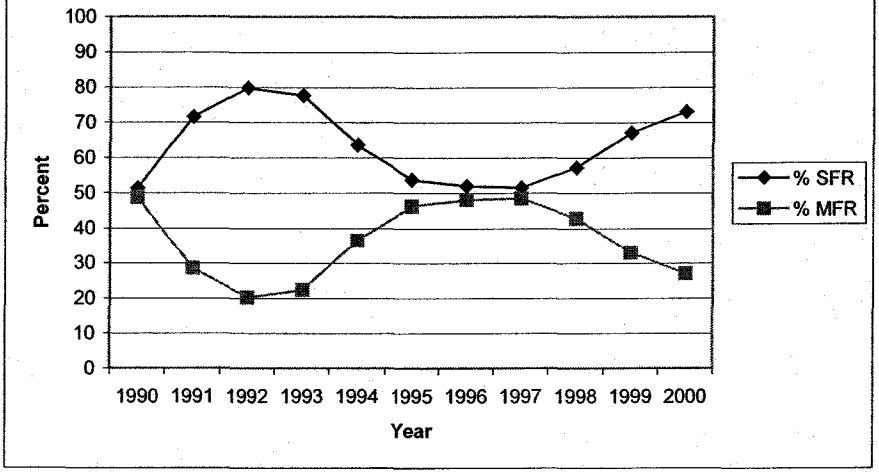
The proportion of single family residential to multi-family residential housing types is an indicator of overall housing mix. During the period from 1990 to 2000, single family residential in Clackamas County represented 67 percent of new residential units permitted while multi-family residential was 33 percent as shown in Figure 6. In Washington County the proportion of new SFR to MFR units permitted was 66 percent and 34 percent, and the proportion in Multnomah County was 50 percent and 50 percent. [Indicator 6.2]

Figure 6: Single Family and Multi Family Units Permitted by County (1990-2000)



Every year from 1990 to 2000, more single family units were permitted in the tri-county area than multi-family units. As shown in Figure 7 below, the tri-county's proportion of SFR to MFR was nearly balanced in 1990 (52 percent to 48 percent) and in 1996/1997 (51 percent to 49 percent). A converging of the single family and multi-family lines at 50 percent signifies that the proportion of single family to multi-family units is split evenly. Separation between the two lines indicates that one category is outpacing the other. The disparity between SFR and MFR was at its most severe in 1992 (80 percent to 20 percent) but stayed more evenly split from 1995 to 1997. Since 1997, this disparity has again increased and in 2000 the proportion was 73 percent SFR to 27 percent MFR. [Indicator 6.2]

Figure 7: Proportion of all new SFR and MFR units permitted (1990-2000) in the Tri-County area



In comparison, between 1995 and 1999 in Clark County, Washington new housing in the whole of Clark County were 80 percent SFR to 20 percent MFR. In the Vancouver, Washington Urban Growth Area for the same period the split was 74 percent SFR to 26 percent MFR. (Clark County Monitoring Report, July 2000).

B. Housing affordability

The homeownership rate (households that own their place of residence) in the region has fluctuated since 1991 but has remained in the 61-62 percent range for the last four years which data was available (1996 to 2000). [Indicator 6.11] A comparison with the March 2001 Oregon Benchmark Report shows that the percentage of owner-occupied households[11] in the State of Oregon increased from 67 percent in 1990 to 68 percent in 1998, meeting the 2000 state target of 68 percent. [Indicator 6.11]

For further comparison, the 2000 King County Benchmark Report Washington estimated a home ownership rate of 59.6 percent, rising just 0.8 percent since 1990 and reported that the 75 largest metropolitan areas in the United States had an overall rate of 64 percent.

[11] Owner-occupied households is used interchangeably with homeownership rate by housing and real estate professionals.

Housing affordability is directly related to wages and the cost of housing. Data for the period from 1990 to 2001 shows that increases in median family income (MFI) in the Portland metropolitan four-county area are outpacing national increases. In this period, median family income (MFI) for the Portland Metropolitan Statistical Area (MSA) rose by approximately 51 percent (from $37,100 to $55,900), while the MFI for the U.S. rose by approximately 47 percent ($35,700 to $52,500). [Indicator 6.6a]

Between 1990 and 2000, the median selling price of single family dwellings increased by 108 percent in the Portland MSA. [Indicator 6.9] During the same period average rents increased by approximately 36 percent in the Portland MSA. [Indicator 6.8]

For this performance measures report, the ability of citizens in the region to buy a home was measured using median sale price, MFI and assumptions on loan period, mortgage rate, and down payment. The results shows that from 1990 to 2000 the region became less affordable, but remained within reach of those in the MFI bracket. The results also indicated that household at or above the MFI in 1990 ($37,100) and 2000 ($53,700) could buy a home in the Portland MSA worth more than the median selling price during the 10-year period. In 1990, a household earning the MFI could afford a $129,000 home and the median selling price was $79,700. In 2000, a household earning the MFI could afford a $187,000 home and the median selling price was $166,000. The difference indicates an affordability surplus of $49,300 in 1990 and $21,000 in 2000. [Indicator 6.6b]

Table 10: Affordability Surplus

Year	Median Selling Price ($)	MFI	House Price Affordable to a Median Income Family	Affordability Difference (surplus)
1990	79,700	$37,100	$129,000	$49,300
1991	91,750	$39,000	$136,000	$44,250
1992	97,000	$39,400	$138,000	$41,000
1993	107,000	$40,700	$142,000	$35,000
1994	117,000	$42,300	$148,000	$31,000
1995	128,000	$42,700	$149,000	$21,000
1996	139,900	$44,400	$155,000	$15,100
1997	150,000	$46,300	$162,000	$12,000
1998	156,900	$49,600	$173,000	$16,100
1999	160,200	$52,400	$183,000	$22,800
2000	166,000	$53,700	$187,000	$21,000

Source: Metro DRC and HUD

**Notes: Assumes fixed rate of 7 percent annually on a 30-year loan with 20 percent down payment and 30 percent allowable for housing expenses. Data is for single family detached and attached housing only. The dollar figures are in nominal and not real or constant dollars.*

C. Conclusion

- Single family units built on lots under 5,000 square feet in size increased from 1,071 in 1996 to 2,490 in 2000, a 132 percent increase.
- The growth in the construction of new multi-family housing units (13.8 percent) over new single family units (6.7 percent) between 1996 and 2000 may reflect the extent to which local governments have implemented the policies contained within Title 1 of the Functional Plan (see 2040 Fundamental: "Encourage Efficient Use of Land"). The growth may also

reflect the extent to which local governments have implemented the state's Metropolitan Housing Rule requiring jurisdictions to designate sufficient buildable land to provide the opportunity for at least 50 percent of new residential units to be attached single family or multi-family housing.

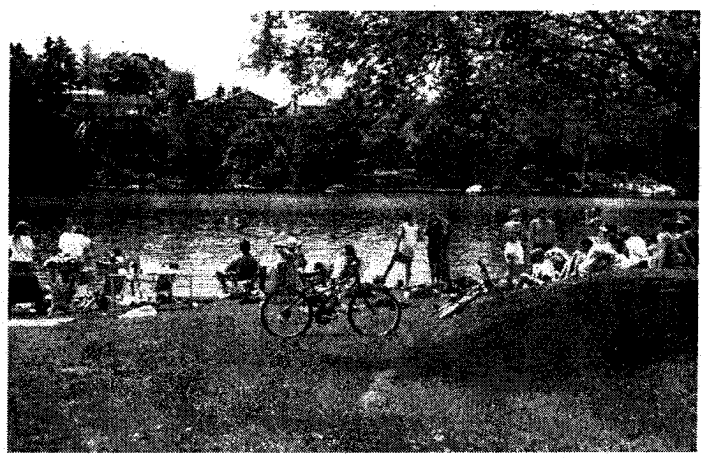
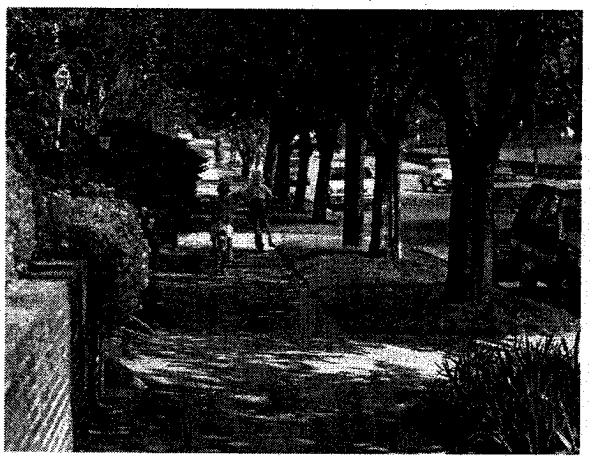
- Despite the increase in new multi-family residential units, the proportion of new single family units built has outpaced new multi-family units in the region since 1998.
- The relationship between median family income and the median cost of a home in the region continues to be an important indicator of affordability. Data shows that households at the median family income are still able to buy a home at, or above the median selling price, although the "affordability surplus" is shrinking.

D. What is Missing?

An important measure of housing affordability is the number of households in the region spending more than 30 percent of their income on housing. Detailed 2000 U.S. Census data was not available at the time that affordable housing indicators were being identified for the performance measures report. (Specifically, data on the number of households spending more than 30 percent of household income on housing, which is the federal government's definition of affordability.) However, a May 30, 2002 article appearing in The Oregonian entitled *Housing Costs Haven't Hit the Roof*, presented a summary of newly-available housing data derived from the 2000 census.

The Oregonian reported that the percentage of households in the Portland area spending more than 30 percent of their income for housing increased from 17 percent in 1990 to 26 percent in 2000. The article states, that as of 2000, Portland ranks in the middle of cities in the West (with a population of 1.5 to 3.5 million) for housing affordability. In comparison, Seattle ranked as less affordable than Portland with 28 percent of residents paying more than 30 percent of income for housing. Phoenix ranked as more affordable with 23 percent of homeowners spending beyond 30 percent.

The Oregonian also reported that the number of renters in the Portland area spending more than 30 percent of their income on housing increased from 37 percent in 1990 to 41 percent in 2000.


2040 Fundamental: Create a vibrant place to live and work by providing sufficient, accessible parks and natural areas, improving access to community resources such as schools, community centers and libraries as well as by balancing the distribution of high quality jobs throughout the region, providing attractive facilities for cultural and artistic performances and supporting arts and cultural organizations.

There is a strong foundation in Metro's policy history for identifying, acquiring and preserving parks and open spaces that contribute to the region's livability. The Metropolitan Greenspaces Master Plan, adopted in 1992, identified a cooperative regional system of parks, natural areas, greenways and trails to enhance recreational opportunities and preserve the connection between the growing population and their natural surroundings.

Citizen approval of Metro's $135.6 million open spaces, parks and streams bond measure in 1995 for purchasing 6,000 acres of natural areas, trails and greenways demonstrated the region's commitment to preserving the connection between people and the natural environment. Local governments were apportioned $25 million to acquire and improve open spaces locally.

The other components of this 2040 Fundamental address elements of community vibrancy such as cultural opportunities and economic stability that are key to maintaining the region's identity and preserving the region's livability. Several of these elements are related directly and indirectly to regional policies adopted by Metro to implement the region's 2040 Growth Concept.

Key Findings

A. Sufficiency of parks and greenspaces

Available data shows that as of the most recent regional inventory of Metro and local parks and greenspaces open to the public, approximately 23.94 acres of parks and greenspaces are available per every 1,000 persons residing inside the UGB.

Overall, there are a total of 28,555 acres of parks and greenspaces provided by Metro and local governments that are open to the public, of which 16,951 acres (59 percent) are inside the UGB and 11,604 acres (41 percent) are outside the UGB. Another 22,091 acres of greenspaces are not open to the public, bringing the total amount of parks and greenspaces open and not open to public provided by Metro and local governments to 50,574 acres. Some of the greenspaces not open to the public represent natural areas acquired with funds provided by the 1995 open spaces, parks and streams bond measure which may not have road access, or parking to provide for opening the areas to the public. As of April 30, 2002, Metro has acquired 7,737 acres of these natural areas. Funding sources have not yet been identified to provide improvements required to open these areas to the public. [Indicators 7.1, 7.2 and 2.3a]

Additionally, there are 99 miles of completed regional trails inside the UGB and 8 miles of trails outside the UGB. [Indicator 7.3] As stated earlier, the data used to calculate the preceding parks and greenspaces acres available to residents of the region relied on a 1998 regional parks inventory and 1998 population estimates. An updated inventory is needed to accurately compare the current level of park service in the region to the current population.

Table 11: Parks and Open Spaces in the Region

Park/Open Space Ownership and Location	Number of Sites	Total Acreage	Number of Sites Open to Public	Total Acreage Open to Public	Parks/Open Spaces Acreage Open to public (per 1,000 residents)*	Parks/Open Spaces Acreage with and without public access (per 1,000 residents)
Metro (inside UGB)	95	3,086	15	2,341	1.96	
Metro (outside UGB)	123	5,498	16	1,328	1.11	
Total Metro	**218**	**8,584**	**-**	**3,669**	**3.07**	**7.2**
Local (inside UGB)	2,850	23,336	1,217	14,610	12.25	
Local (outside UGB)	257	18,654	74	10,276	8.62	
Total Local	**3,107**	**41,990**	**-**	**24,886**	**20.87**	**35.23**
Total Parks and Open Spaces	**3,325**	**50,574**	**1,322**	**28,555**	**23.94**	**42.42**

*Source: Metro Regional Parks and Greenspaces (1998 Parks Inventory) *All ratios are per 1,000 population residing within the UGB. Note: Per 1,000 calculations are based upon the 1998 population within the UGB of 1,192,198.*

A comparison of the ratio of park land per 1,000 people in this region and in the City of Portland with other areas in the country seems to suggest that a number of jurisdictions provide more parkland per 1,000 people than this region.

The Metropolitan Council of Minneapolis/St. Paul represents a seven-county area and had a total of 141,980 acres of parks and open space available for its 2,638,068 citizens in 2000. This equates to approximately 54 acres of parkland per every 1,000 persons in that region.

Another similar comparison could be drawn from data appearing The Oregonian article in October 1998. The author compared the total acreage of available park land in the City of Portland with a number of other jurisdictions in the West. With 9,994 acres of parks[12] and a population of 503,000, the article reported that the City of Portland provided 19.1 acres of parks per capita. Portland ranked in the middle of the 12 jurisdictions the article mentions. The City of Austin, Texas ranks first by providing 38 acres of parks per capita, while Clark County (Las Vegas) ranked last by providing 4 acres per capita. It is important to clarify that this data is for parks acreage within the city limits only and the cities were chosen by the author of the article.

Table 12: Parks in Comparable Cities – 1998

Jurisdiction	Population	Total Acres	Park acres per 1000 people
Austin	596,769	22,699	38.0
Phoenix	1,159,014	33,855	29.2
San Diego	1,218,700	32,650	26.8
Dallas	1,006,877	22,756	22.6
Portland	503,000	9,594	19.1
Houston	1,822,989	20,538	11.3
Oakland	386,086	2,908	7.5
Sacramento	376,243	2,693	7.2
San Antonio	1,115,600	7,390	6.6
Long Beach	421,904	1,942	4.6
Los Angeles	3,553,638	15,574	4.4
Clark Co. (Las Vegas)	1,314,924	5,304	4.0

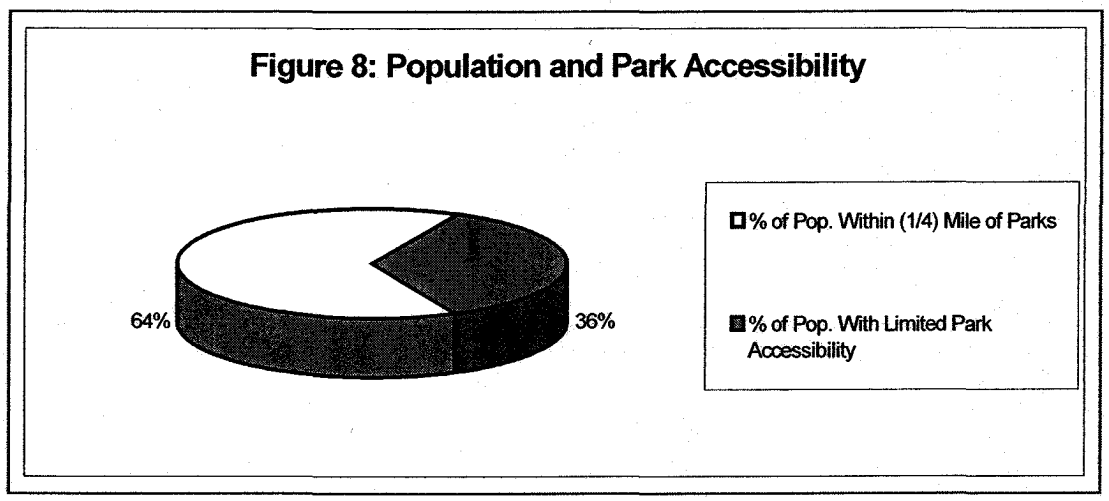
Source: The Oregonian 10/28/98

[12] The City of Portland parks includes community parks, neighborhood parks, regional parks like Washington and Forest Parks, school grounds like sports fields that are open to public, aquatic facilities, botanic gardens, community gardens and habitat areas that are not open to the public. The acreage of parks in the City of Portland as of April 2002 was 10,268 acres.

B. Accessibility of parks and natural areas to majority of region's population

Based on the 1998 parks inventory, 64 percent of the people residing in the UGB are within walking distance[13] (¼-mile) of public parks, greenspaces or regional trails currently open to the public. The ¼-mile is based on Metro transportation policies that ¼-mile is considered a "walking distance" to transit. [Indicator 7.4]

Figure 8: Population and Park Accessibility



Source: Metro Data Resource Center

The City of Portland Parks Bureau estimates that 77.5 percent of its citizens lived within ½-mile of a community or neighborhood park in 1999. (City of Portland Service Efforts and Accomplishments: 1999-00, December 2000)

C. Conclusion

- Available data (1998 vintage) shows that the level of parks and green spaces provided by governments in the region to enhance recreational opportunities for the citizens are comparable to some other urban areas, although the level provided per 1,000 people is less than in some areas in the country.
- Many of Metro's and local government's open space areas were acquired with funds made available by the 1995 open spaces, parks and streams bond measure. Due to a lack of funding for needed infrastructure, areas of public open space belonging to governments (including Metro) are not yet open to the public for recreational use.
- Additional effort is needed to better define some segments of this 2040 Fundamental such as: a) access to community resources; b) balancing the distribution of high quality jobs; and c) support for arts and cultural organizations. Additional effort is also needed to identify performance indicators and collect and analyze data related to cultural vibrancy and community resources, which are identified as priorities in this 2040 Fundamental.

[13] The ¼-mile is based on Metro transportation policies that consider ¼-mile a "walking distance" to transit. This measurement does not take into account natural physical constraints that may serve as a barrier to accessibility such as rivers and steep slopes. Nor does the methodology for account for man-made barriers such as highways and other development.

D. What is Missing?

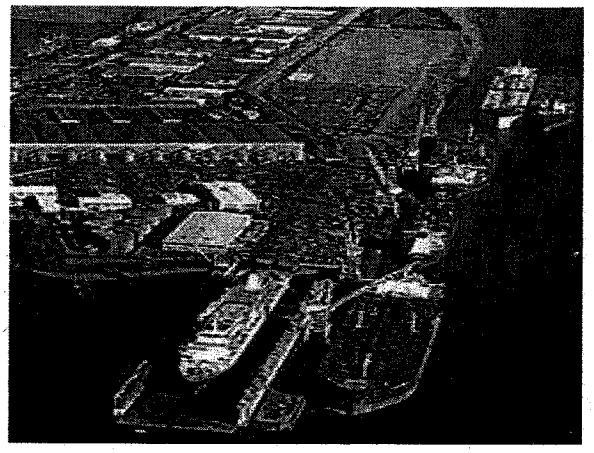
- Some indicators identified to assess neighborhood and household characteristics such as the trend in the diversity (or mix) of income groups living in neighborhoods, accessibility of households to retail opportunities including major grocery stores, and business types located in mixed use centers were not measured due to data limitations.
- In addition, the following segments of this 2040 Fundamental were not measured or directly measured in this phase due to lack of resources.

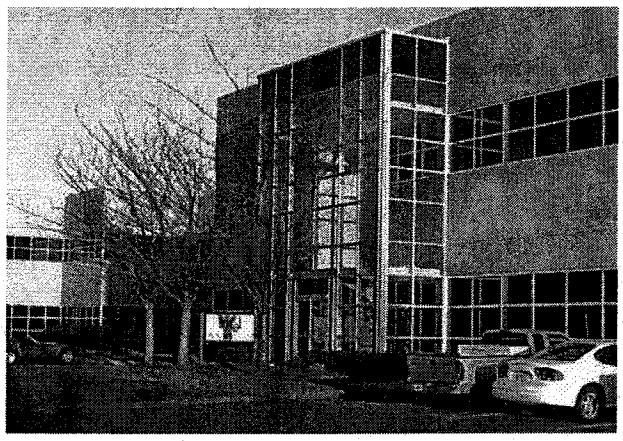
  - **Improving access to community resources such as schools, community centers and libraries:** This segment of this fundamental needs to be defined in the coming years and incorporated into the next performance measures report.

  - **Balancing the distribution of high quality jobs throughout the region:** 2040 Fundamental: "Encourage a Strong Local Economy" addresses the strength of the regional economy and several of the indicators identified to measure this fundamental pertain to regional employment growth by sector and industry, and the regional unemployment rate (8.5a/b, 8.5c/d). 2040 Fundamental: "Encourage Efficient Use of Land," which addresses the efficient use of land in the region, identified one Indicator 1.1c to measure employment in mixed use centers. 2040 Fundamental: "Create a Vibrant Place to Live and Work," which addresses housing affordability, identified Indicator 6.6a to measure the change in the region's median household income.

    Although these indicators measure levels of employment and wages region-wide and in the mixed use centers, additional indicators will need to be identified to measure the pattern of job distribution throughout the region. This work will be addressed in future performance measures efforts.

  - **Providing attractive facilities for cultural and artistic performances and supporting arts and cultural organizations:** The Metropolitan Exposition-Recreation Commission (MERC) exists under Metro and manages three regional facilities — the Oregon Convention Center, the Portland Center for the Performing Arts and the Portland Metropolitan Exposition Center (Expo Center). Although MERC's 2000 data shows that 946,770 citizens attended artistic events at the Portland Center for the Performing Arts, 602,600 citizens attended events at the Expo Center, and 580,835 citizens attended events at the Oregon Convention Center, performance indicators will need to be identified to measure the degree to which these facilities are attracting citizens.





2040 Fundamental: Encourage a strong local economy by providing an orderly and efficient use of land, balancing economic growth around the region and supporting high quality education.

Regional economic trends are cyclical and largely driven by state, national and international factors and private sector decisions. However, as a regional government, Metro is in a unique position to affect (directly and indirectly) the region's economy through broad and specific regional policies. Perhaps the clearest relationship between Metro policies and the regional economy is founded in Oregon state law which requires Metro to maintain an UGB and a sufficient supply of land within the UGB for 20 years of growth.

These UGB decisions influence the region's capacity for industrial growth and also affect land availability and land price. At some level the demand and supply of land may affect housing affordability, the cost of goods and services, levels of employment and property tax revenue that that in many cases is used by state and local governments to fund critical programs, including education and parks. Metro's responsibility to inventory and replenish residential, commercial and industrial land within the UGB allows for thoughtful orderly planning for future developable areas.

The 2040 Growth Concept relies on the UGB to plan the region's growth in ways that preserve the region's livability and maintain economic vitality. The 2040 Growth Concept ensures that land and infrastructure within the UGB are used efficiently to enhance diverse commercial

activities in strategic locations throughout the region. The 2040 Growth Concept also works to ensure that investment does not abandon existing urban areas. In response to Metro requirements, most local governments in the region have taken steps to provide a supply of mixed use land in one form or another. Some governments have created new, mixed use areas and zones while other jurisdictions have rezoned existing commercial or residential areas to allow a mix of uses.

Transportation and distribution sectors play vital roles in the regional economy. Metro's RTP requires a regional emphasis on freight movement and creates opportunities for the private sector, ports, local jurisdictions, ODOT and other public agencies to maximize the efficiency of the freight system. Metro transportation policies on road connectivity and congestion management directly affect the movement of goods, services and employees and thus the regional economy.

Key Findings

A. Encouraging strong regional economy through land supply

A number of indicators assess the degree to which industrial, commercial and mixed use land is available inside the UGB. The regional supply of these land categories may be Metro's most direct influence on the regional economy.

Vacant land zoned for industrial uses in the region decreased slightly (3 percent) in the two years that data is available from 9,924 acres in 1999 to 9,612 acres in 2000. It is difficult to draw conclusions from just two years of data and since changes in the amount of vacant industrial land may have resulted from the development of land currently zoned industrial and/or from rezoning. [Indicator 8.1b]

In comparison, neighboring Clark County, Washington estimated that vacant industrial land in the Vancouver Urban Growth Area has decreased to 5,315 acres in 2000. In comparison, commercial land in Clark County, Washington has decreased 1,631 acres in 2000. (Clark County Plan Monitoring Report, July 2000)

It is important to point out that not all available vacant industrial land is readily developable. Factors such as the availability of public infrastructure (roads, streets, water, sewer, etc.), ownership, lot size, and other constraints influence the ease with which parcels zoned industrial can be converted to use.

Historically, Metro has measured the total supply of industrial land in the region, but has not quantified the land in terms of suitability of the sites. However, the 1999 Regional Industrial Land Study prepared by OTAK. Inc. employed a four-tier system (A, B, C and D) to categorize the supply of industrial land. A 2002 update of the industrial land supply study used 2000 data and an improved methodology to increase the accuracy of the inventory.

Tier A land is considered to be available for use within a short time frame (less than five years) as a result of the availability of public infrastructure such as roads, streets, water, sewer, etc. Tier D land is considered to be land best suited for redevelopment and is constrained only by buildings, brownfields and existing uses. Tiers B and C are considered to be constrained.

The data (see Table 13) shows that in 2000, approximately 2,093 acres (32 percent) of the 6,517 acres of vacant buildable industrial land within the UGB was classified as readily

developable, or as Tier A. Of the 2000 Tier A land, the majority of the parcels (518 acres or 25 percent) are 1-5 acre lots. In 2000, approximately 623 acres (10 percent) of the 6,517 acres of vacant buildable industrial land within the UGB was classified as land with redevelopment potential, or Tier D. Of the 2000 Tier D land, the majority of the parcels (236 acres or 38 percent) are 1-5 acre lots. [Indicators #8.2 and #8.3]

Table 13: Buildable Industrial Land Supply by Tier and Lot Size – UGB, 2000

	Under 1-acre lots	1 to 5	5 to 10	10 to 25	25 to 50	50 to 100	100 + acre lots	Total	% Total
A – Readily developable	53	518	431	484	348	171	89	2,093	32%
B – Constrained	67	789	678	760	769	149	-	3,212	49%
C – Commercially valued	281	264	45	-	-	-	-	590	9%
D – Suited for Redevelopment	31	236	156	99	47	53	-	623	10%
Total	**432**	**1,807**	**1,309**	**1,343**	**1,164**	**373**	**89**	**6,517**	**100%**

Source: Regional Industrial Land Supply, 1999; 2002 update for Urban Growth Report

Vacant commercial land inside the UGB decreased from 2,180 acres in 1999 to 1929 acres in 2000, a decrease of 251 acres or 12 percent. Again, it is difficult to draw conclusions from the amount of commercial land consumed since the data reflects just two years of data and since changes in the amount of vacant commercial land may have resulted from both development of land currently zoned commercial and/or from rezoning. [Indicators 8.4a and 8.4b]

Mixed use lands are fundamental to the design and implementation of the 2040 Growth Concept as they serve as concentrated hubs of transportation and other infrastructure that provide greater opportunities for housing and employment and allow for a diverse and vibrant concentration of businesses. The performance measures effort found that the 5,024 acres of vacant mixed use land that were available within the UGB in 1998 increased by approximately 232 acres (5 percent) to 5,256 acres in 2000. These increases in supply occurred in 11 individual jurisdictions from 1998 to 2000. It is difficult to discern whether the changes in the amount of measurements available mixed use land is the result of rezoning or consumption. [Indicators 8.4d and 8.4e]

Land Price is another factor that affects the regional economy, however, accurate land price are difficult to conduct. This is due in part to the difficulty of acquiring sales data that accurately reflects the complicated nature of land transactions (deed transfers, multiple parties, varied financing methods) and the multiple variables that affect the price of a piece of land (existence of infrastructure, allowable uses, etc.). Metro has not developed a precise methodology for calculating land price and for this reason data from outside sources (Urban Land Institute) was used to address this issue in this first performance measures report. The data below shows that between 1995 and 1999, the cost of land for downtown office buildings decreased while the cost of land for shopping centers increased moderately. The data also showed the cost of land for industrial and single family uses increasing substantially. [Indicator 8.11]

Table 14: Land Price in the Portland Metropolitan Area

	Typical Vacant Land Price	1995	1999	Percent Change
1.	Single Family Lots (I)	$77,700	$105,167	▲35%
2.	Commercial Land – Acre (ii) Shopping Center	$386,410	$414,905	▲7%
3.	Commercial –Square Feet (iii) Office Market			
	a) Downtown	$85.50	$84.00	▼2%
	b) Suburban High-Rise	$12.00	$15.00	▲25%
	c) Office Park	$7.00	$9.75	▲39%
4.	Industrial – Acre (iv)			
	a) Industrial Parks	$54,450 – 108,900	$133,000 – 190,000	▲98%
	b) Flex or Hybrid Industrial Parks	$141,570 – 163,350	$255,000 – 440,000	▲128%

Source: ULI (Urban Land Institute) Market Profiles 2000
Key: ▲= percent increase
▼= percent decrease

Jobs, Income and Freight Movement

There is a strong relationship between enhanced livability and a strong regional economy powered by various employment sectors. Although Metro takes the region's employment situation into account as it considers amendments to the UGB to accommodate a 20-year land supply, it is not within Metro's authority to require that either employment or housing locate in any specific area. Despite Metro's limited authority related to the regional economy and indicators such as income, Metro policies recognize that diversified employment opportunities contribute to a strong and stable regional economy that is less reliant on a few large employers.

During the 1990 and 2000 period, total employment in the Portland PMSA (five-county region) increased by 34.2 percent, or by 244,500 jobs (from 715,000 to 959,700 jobs). [Indicator 8.5a]

Data shows also that during the same 10-year period (1990 to 2000) total personal income in the Portland-Vancouver four-county area (SMSA) increased by 49 percent (from $29 billion to $57.8 billion), while national rates of personal income increased by 41 percent during the same period. In 1990, paper and pulp products ($14.20 per hour), printing and publishing ($13.38 per hour) and primary metals ($11.93 per hour) accounted for the highest average hourly wage rates in the Portland-Vancouver four-county area. In 2000, paper and pulp products ($19.47 per hour), machinery ($17.14 per hour) and printing and publishing ($16.11per hour) accounted for the highest hourly wage rates. [Indicator 8.7]

Retail sales per capita in the Portland/Vancouver area increase dramatically by 67 percent over the 10-year period that data was available, from approximately $9,000 in 1989 to $15,000 in 1998. During the same period, the volume of sales increased from approximately $10.9 billion in 1989 to $27.5 billion in 1998. [Indicator 8.15]

Transportation plays a major role in the regional economy. Indicators were identified to assess freight movement and general business activity. The performance measures report found that the largest mass of freight (64 percent or 166,574,500 tons) travels in, out and within Portland by truck, which in 1997 carried more tonnage than the other modes combined. Trucks also accounted for 77 percent of the value of total regional freight. For more information, see Figures 9 and 10. [Indicator 8.13]

Figure 9

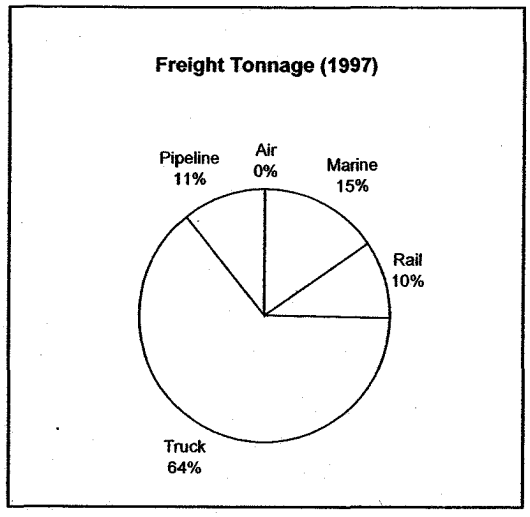
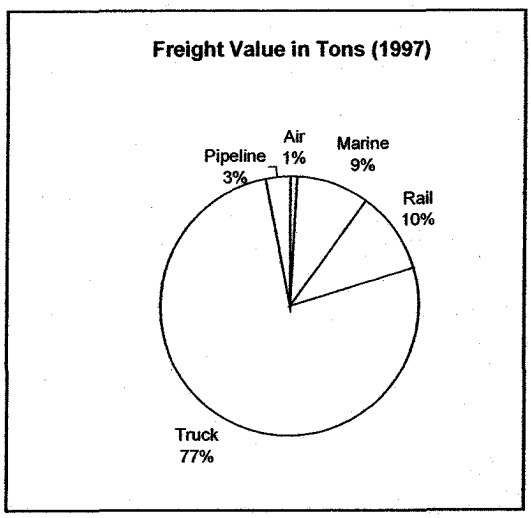


Figure 10



Air passengers departing from and arriving to Portland International Airport increased by approximately 13.2 percent from 1995-2000, however, this figure was influenced by a 7.8 percent decrease that occurred between 2000 and 2001. This decrease is attributable to the recession and to the September 11, 2001. [Indicator 8.14]

B. Conclusion

- Although there are aspects of the regional economy that Metro policies may affect, it is difficult to identify and directly measure Metro's influence. For this reason, this report focuses on measuring Metro policies that seem to have the clearest relationship with the regional economy. These indicators include Metro policies related to land supply and demand. Other indicators of overall regional health were also included.
- The 1999 Regional Industrial Land Supply Study (conducted by Otak, Inc,) and the update completed in 2002 measure the suitability of buildable vacant industrial land in the Metro region for immediate industrial use. The studies found that land that meets the definition of readily developable or redevelopable is outnumbered by industrial land with different development constraints. The acreage differences between the data produced in the original study and the data from the 2002 update can be attributed to methodology improvements. Future updates to this performance measure will rely on a new industrial lands study being conducted.
- The sources for land prices provided in this report (Market Profile 2000 by the Urban Land Institute and the Real Estate Transactions Journal, published by the PGP Valuation Inc.) have been discontinued. Data limitations will make it almost impossible to update this indicator in the future unless Metro or another group engages in land price data collection.
- It is difficult to determine the amount of mixed use land being consumed due to continual addition of this land through rezoning.
- Movement of freight into, out of and within the region was dominated by truck, which in 1997 carried more tonnage than the other modes (air, marine, rail, pipeline) combined.

- Jobs data for the period between 1990 and 2000 reveals an increasing trend in the number and percent of jobs in non-manufacturing sector and decreasing trend in the manufacturing sector.
- The three most significant sectors of employment in the region during the last decade were the service, retail and manufacturing sectors.

C. What is Missing?

- The financial health of individual jurisdictions in the region could not be measured due to data limitations.
- In addition, the following segments of this 2040 Fundamental were not measured or directly measured in this phase due to lack of resources.

  - **Balancing economic growth around the region:** Metro policies stress the need for a diversification of the regional economy and the creation of family-wage jobs. The type and distribution of jobs and housing will provide for a more equitable distribution of income, create additional investment and tax capacity throughout the region, and support other regional goals and objectives including affordable housing. However, no indicators were identified to adequately measure the distribution of jobs and/or income throughout the region.

  - **Supporting high quality education**: No indicators were identified at this time to measure this portion of this 2040 Fundamental. Future performance work program will review related Metro policies and measure their performance.

Basic Statistics of the Metro Region

Jurisdictions within the Metro boundary	
Cities	24
Counties (Clackamas, Multnomah, Washington)	3
Special service and school districts	130
Land Area (2001 Metro data)	
Metro UGB	368.6 sq. miles 235,904 acres 954.67 sq. km.
Population (2000 Census data)	
Metro UGB	1,281,470
Metro Boundary	1,305,574
Three County Area (Clackamas, Multnomah, Washington)	1,444,219
Four County Areas (Clark, Clackamas, Multnomah, Washington)	1,789,457
Clackamas County in Metro Area	236,349
Multnomah County in Metro Area	654,202
Washington County in Metro Area	415,023
Households (2000 Census data)	
Clackamas County total	128,201
Average household size[14]	2.62
Average family size[15]	3.07
• Multnomah County total	272,098
Average household size	2.37
Average family size	3.03
• Washington County total	169,162
Average household size	2.61
Average family size	3.14
Housing Units (2000 Census data)	
Clackamas County	136,954
Multnomah County	288,561
Washington County	178,913

[14] Average household size is calculated by dividing the persons in all households by the number of occupied households in the region. Persons in the occupied households may not be related.

[15] Average family size is calculated by dividing the persons in all families by the number of families in the region. Persons in the family are related by marriage, birth and adoption.

Median Family Income (2001 HUD Data)	
Metro Region	$52,500
Per Capita Income (1999 Bureau of Economic Analysis data – Federal Department of Commerce)	
Clackamas County	$32,237
Multnomah County	$32,095
Washington County	$31,537
Oregon Total	$26,958
Portland/Vancouver, WA (PMSA)	$30,672
Vehicles registered (2000 Oregon Department of Motor Vehicle data)	
Clackamas County	354,035
Multnomah County	641,426
Washington County	393,099
Transportation	
Daily Bus Boarding Rides (2000 TriMet Data)	206,200
Daily Bus Originating Rides (")	158,000
Daily MAX Boarding Rides (")	68,300
Daily MAX Originating Rides (")	61,000
Daily Vehicles Miles of Travel Per Capita for Portland side of the Metro area (in miles traveled daily per person) (2000 ODOT data)	20.0
Miles of Bike Lanes (2002 Metro data)	512
Regional Facilities (2000 Metro & MERC Data)	
Annual Attendance	
Expo Center	602,600
Oregon Convention Center	580,835
Portland Center for the Performing Arts	946770
Oregon Zoo Attendance	1,328,761

Indicators Measured

2040 Fundamental: Encourage efficient use of land within the UGB.

Efficiency of Land Use:
1.1d: Population and dwelling unit density by census tract.
1.2a: Consumption of buildable land by residential sector in the Metro UGB. **(Required)**
1.2b: Consumption of buildable land by employment in industrial and non-industrial areas. **(Required)**
1.2c: New housing units (SFR/MFR) permitted through redevelopment and infill. **(Required)**
1.2f: Gross consumption of vacant land as compared to population growth. **(Required)**

Mixed use opportunity for Employment and Housing:
1.2e: Mixed use index: Progress of development of mixed use opportunities for employment and housing in the region in the central city, regional centers, and town centers.

Population and Employment Accommodated in the UGB and 2040 Design Type Areas:
1.1a: Mixed use and corridor capture rate – the proportion of employment population and household growth inside the Metro UGB which is located in mixed use areas and corridors.
1.1b: Capture rate - the proportion of the region's population, employment, and household growth inside the Metro UGB as compared to the total (four county) region.
1.1c: Employment in 2040 mixed use centers and corridors. **(Required)**

2040 Fundamental: Protect and restore the natural environment.

Protection of Environmentally Sensitive Lands within the Metro Boundary:
2.1a: Acres of environmentally sensitive land within the Metro jurisdictional boundary regulated by Title 3 (wetlands, floodplains, streamside areas and steep slopes). **(Required)**
2.1b: Percent of stream miles within the Metro boundary protected by Title 3. **(Required)**
2.2a-b: Percent of vegetated corridors along Title 3 rivers and streams within the Metro boundary converted to development (including adjacent steep slopes as defined by Title 3). **(Required)**
2.2c: Percent of Title 3 floodplain area, within the Metro boundary converted to development. **(Required)**

Features Protected by Acquisition:
2.3a: Acres of greenspaces acquired by Metro, and acquired by local governments and special districts.
2.3b: Miles of stream banks in public ownership/protected through acquisition by Metro, and through acquisition by local governments or special districts. **(Required)**

Forested Land and Water Features Protected and Not Protected:
2.4: Acres of Title 3 wetlands, vegetated corridors along primary and secondary rivers and streams, floodplains, and steep slopes in the Metro boundary that are forested (tree canopy).
2.5: Change in acres of forested (tree canopy) Title 3 wetlands, streamside areas and steep slopes in the Metro boundary.
2.6a: Acres of forested (tree canopy) land that are unregulated by Title 3 and outside of public and private parks and open space areas.
2.7a: Change in acres of forested (tree canopy) land in the Metro boundary that is unregulated by Title 3 and outside of public and private parks and open space areas.

Steep Slopes on Non-Regulated Land and Water Features:
2.8: Acres of vacant steep slopes inside the Metro boundary not regulated by Title 3.

Water Quality;
2.9a: DEQ Water Quality Index.
2.9b: DEQ 303(d) list for water quality limited water bodies in the Metro region.

Waste Disposed and Recycled;
2.10a: Change in the amount of waste generated, recycled and disposed in the Metro boundary.
2.10b: Amount of household hazardous waste collected in the Metro boundary.

2040 Fundamental: Provide a balanced transportation system.

Transportation System:
3.1a: Percent of the region with an adopted transportation system plan in compliance with the 2000 RTP.
3.1b: Percentage of the RTP Priority System motor vehicle and freight projects funded by the MTIP.
3.1c: Percentage of the RTP Priority System bicycle and pedestrian projects funded by the MTIP.
3.1f: Percentage of RTP Priority System transit projects funded by a given MTIP.
3.1g: Percentage of RTP Priority System boulevard projects funded by the MTIP.

RTP Priority System:
3.1h: Total cost of motor vehicle and freight projects as a percentage of the total Regional Flexible Funds allocation.
3.1i: Total cost of bicycle and pedestrian projects as a percentage of the total Regional Flexible Funds allocation.
3.1l: Total cost of transit projects as a percentage of the total Regional Flexible Funds allocation.
3.1m: Total cost of boulevard projects as a percentage of the total Regional Flexible Funds allocation.

Local Street Connectivity:
3.3a: Portions of the region meeting street connectivity requirements.

Congestion Policy:
#3.4a(1): Traffic volume on major freeways in the region. **(Required)**
#3.4a(2): Change in average travel times in key corridors by motor vehicle, freight, transit. **(Required)**

Modal Targets:
3.5c: Gross transit rides.
3.5d: Transit rides per capita.
#3.5e: Originating rides by bus and rail.
#3.5f: Service hours per capita.
3.5h: Change in transit use in 2040 centers: central city, regional centers, town centers.
#3.5i: Vehicle miles traveled per capita. **(Required)**

Air Quality:
#3.7a: Progress made implementing or exceeding commitments in the Portland Ozone Maintenance Plan for increase in transit, bicycle and pedestrian facilities.
#3.7b: Difference between currently estimated On-Road Mobile emissions and the amount allowed in the Portland Maintenance Plans for Ozone and Carbon Monoxide.

2040 Fundamental: Maintain separation between the Metro UGB and neighboring cities.

IGA Designated Rural Land:
4.1: Amount of land in intergovernmental agreement (IGA) areas that has been brought within the Metro UGB or the UGB of a neighboring city after participating jurisdictions agreed these areas would remain in rural use.

IGA Green Corridors:
4.2: Number of new rural commercial, rural industrial, non-residential and non-agricultural permits (including square footage) granted within 200 feet of both edges of the right of way of adopted green corridors (Highway 99E and US 26).

Population and Employment:
4.3: Employment and population locating outside the Metro UGB (non-Metro capture rate): the proportion of the region's population, employment and household growth locating in the four-county area outside the Metro UGB.

2040 Fundamental: Enable communities inside the Metro UGB to preserve their physical sense of place.

Indicators identified by local governments will be measured in the next phase of performance measures.

2040 Fundamental: Ensure availability of diverse housing options for all residents.

Type and Quantity Housing Units:
6.1a: Change in number of dwelling units.
6.1b: Number of dwelling units by the following type: a) detached single family units: large lot, small lot, accessory, manufactured; and b) attached multi-family units: duplex and townhouses (attached SF*), multi-family.
6.2: Change in the proportion of single family to multi-family housing. **(Required)**

Density of Change for Multi-Family Dwellings:
6.3: Change in average number of multi-family units per net acre. **(Required)**

Vacancy Rate:
6.5: Vacancy rate for multi-family units (apartments).

Income and Affordability:
6.6a: Change in median household income.
6.10: Number of units affordable to households in the following income groups: a) less than 30 percent of median household income; and b) less than 50 percent of median household income.

Affordability Surplus and Homeownership:
6.6b: Home ownership affordability gap.
6.11: Percent of owner-occupied or homeownership in the region

Housing Cost:
6.8: Median rent of multi-family residential.
6.9: Median sales price of single family residential.

2040 Fundamental: Create a vibrant place to live and work.

Recreation/Parks and Open Spaces:
7.1: Acres of Metro parks and greenspaces per thousand (1998): **(Required)**: a) Inside UGB open to the public; and b) Inside and outside the UGB open to the public.
7.2: Acres of other (local and state) public parks and greenspaces per 1,000 open to the public. **(Required)**: a) Inside UGB open to the public; and b) Inside and outside the UGB open to the public.
7.3: Miles of completed regional trails: a) Inside the UGB; and b) Outside the UGB
7.4: Percentage of population within walking distance (¼-mile) of public parks, greenspaces and regional trails. **(Required)**

2040 Fundamental: Encourage a strong local economy.

Commercial, Industrial and Mixed Use Land Supply
8.1a: Amount of vacant land zoned industrial.
8.1b: Change in consumption of land zoned industrial

8.2: Vacant buildable industrial land that is readily developable and served with public facilities and classified as Tier A in the 1999 Regional Industrial Land Supply Study.
8.3: Redevelopable buildable industrial land served with public facilities and classified as Tier D in the 1999 Regional Industrial Land Supply Study.
8.4a: Amount of vacant land zoned commercial.
8.4b: Change in consumption of land zoned commercial.
8.4d: Amount of vacant land zoned mixed use.
8.4e: Change in consumption of land zoned mixed use.

Employment
8.5a: Regional Employment Growth. **(Required)**
8.5b: Regional Employment Growth by sector. **(Required)**
8.5c: Regional Employment Capture Rate.
8.5d: Regional Employment Growth by industry by County.
8.6: Regional Unemployment Rate.

Income
8.7: Income Growth, per capita income, wage rates by industry.

Real Estate
8.8: Building Permits (single family residential and multi-family residential total).
8.10: Number of home sales.

Land Price
8.11: Change in real estate price by following land use type: i) Residential single family ($/unit); ii) Residential multi-family ($/acre); iii) Commercial; iv) Industrial.

Business/Trade Volume

8.13: Freight tonnage and value of goods using the following modes: a) Air; b) Marine; c) Rail; d) Truck.
8.14: Air passenger volume.
8.15: Retail sales per capita.

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PROJECT OVERSIGHT AND SUPPORT

Metro Technical Advisory Committee
Wink Brooks, City of Hillsboro
Ron Bunch, City of Lake Oswego
Bob Clay, City of Portland
Hal Bergsma, City of Beaverton
Meg Fernekees, Oregon Department of Land Conservation Department
Mike Houck, Portland Audubon Society
Mary Kyle McCurdy, 1000 Friends of Oregon

Transportation Policy Alternatives Committee
Steve Dotterrer, City of Portland (former committee member)
Susie Lahsene, Port of Portland
Annette Liebe, Oregon Department of Environmental Quality
Lynn Peterson, TriMet (former committee member)
Bill Stewart, Willamette Traffic Bureau

Ad Hoc Peer Review Group
Steve Dotterrer, former Transportation Policy Advisory Committee member
Mark Knudsen, Metro Policy Advisory Committee member
Douglas McClain, Metro Technical Advisory Committee member
Jim Zehren, Metro Policy Advisory Committee member

Planning Department
Andy Cotugno, Planning Director
Mark Turpel, AICP, Long Range Planning Manager
Sherry Oeser, Manager
Gina Whitehill-Baziuk, Manager

PROJECT STAFF
O. Gerald Uba, Ph.D., Project Manager
Scott Weddle, Assistant Regional Planner

Support Staff, Planning Department
Sherrie Blackledge, Administrative Assistant
Ethan Spoo, Intern (Portland State University)

INTER-DEPARTMENTAL SUPPORT

Long Range Planning, Planning Department
Malu Wilkinson, Associate Regional Planner

Community Development, Planning Department
Mary Weber, AICP, Community Development Manager
Brenda Bernards, Senior Regional Planner

Data Resource Center, Planning Department
Mark Bosworth, Program Supervisor
Carol Hall, Principal Planner
Karen Larson, Associate GIS Specialist
Dennis Yee, Program Supervisor, Senior Economist

Regional Transportation Planning, Planning Department
Tom Kloster, Transportation Planning Manager
Kim Ellis, Senior Transportation Planner
Ted Leybold, Principal Planner
Kelley Webb, Assistant Transportation Planner

Travel Forecasting, Planning Department
Dick Walker, Travel Forecasting Manager
Jennifer John, Senior Transportation Planner

Solid Waste and Recycling Department
Mike Hoglund, AICP, Director
Scott Klag, Senior Solid Waste Planner

Regional Parks and Greenspaces Department
Heather Nelson Kent, Planning and Education Manager
Linnea Nelson, Program Assistant II

Other Staff Members
Nancy Goss Duran, Former Executive Analyst
Janice Larson, Communications Division Manager
Michael Morrissey, Planning Department
Cathy Thomas, Senior Public Affairs Specialist
Marc Zolton, Media Coordinator

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