PORTLAND PLAN

Household and Employment Forecasts and Development Capacity

Managing Change

In recent decades, the Portland Metropolitan region and the City of Portland experienced a steady increase in population. In 1980, the city's population was about 368,000 residents. By 2005, the population had grown to nearly 555,000 residents. Much of this growth was a result of new city boundaries. In the 1980s and 1990s, the City of Portland annexed much of the city referred to as East Portland and Cully, as well as some smaller areas in North and Southwest Portland, greatly expanding the city's boundaries. Other growth can be attributed to people having children and new Portlanders arriving from across Oregon, the nation and beyond. In coming years, it is unlikely that Portland's boundaries will change. As a result, current Portlanders, their friends and growing families and new Portlanders alike will need to figure out how to manage change, direct investments and work smarter within existing city limits.

In another 25 years, how many people will live on Portland's nearly 93,000 acres? Where in the city will people choose to live? What kinds of jobs will Portlanders have?

Who develops household and employment forecasts?

Metro, our regional government, is responsible for forecasting the amount of population growth the metropolitan area will likely experience. Metro is also responsible for developing an employment forecast that estimates the number and types of jobs that will be in the city in the future.

What is a forecast?

Metro's forecasts are not targets. They are projections or estimates of what is likely to happen in the future, given trends, previous experience and existing policies. Although forecasts are educated estimations of what is likely to happen, they are neither goals nor necessarily descriptions of desired outcomes.

Why are forecasts important?

While forecasts may not always tell Portlanders what they want to hear, they are useful and very important. Household and employment forecasts help the City of Portland and other local communities plan responsibly. After all, population growth triggers the need not only for new housing but also for a complex web of additional urban services, from water pipes and sewers to parks and open spaces, roads, railways, schools and hospitals, all of which need to be planned far in advance. Employment

forecasts tell the City of Portland what kind of land and work sites are needed to help the economy grow and tell the city which types of businesses are likely to provide jobs over the next generation. The information contained in forecasts helps Portlanders make informed and educated decisions about how to manage land, where and when to invest in infrastructure – like transportation and utilities – and which policies and programs should be continued and enhanced and which should not.

How do Metro's household and employment forecasts work?

Metro uses data from the forcasting firm Global Insight, and estimates the distribution of households and jobs based on a computer model called Metroscope. For information on how Metroscope works, please check out Metro's website: www.metro-region.org.

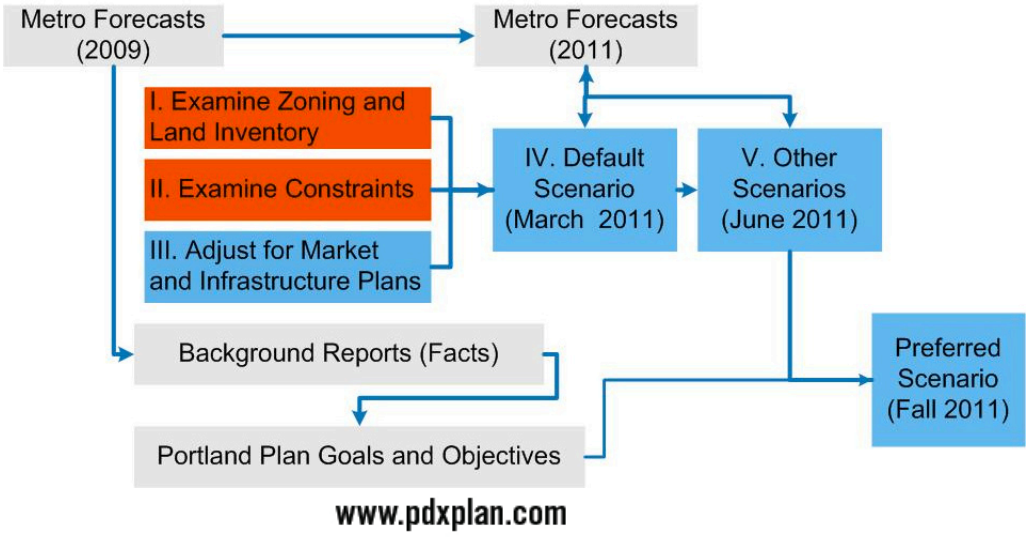
What is The Buildable Lands Inventory?

The Buildable Lands Inventory helps us begin to understand what Metro's forecasts might mean for Portland. Do our zoning and regulations allow for the development needed to accommodate the projected household and job growth? To help answer this question, the City of Portland uses its own computer model to project "development capacity." Development capacity is defined as the likely number of new dwelling units or jobs that could be accommodated in the city under existing regulations assuming the continuation of recent market trends. Determining development capacity is a five-step process. For each step, assumptions must be made. The approach used in this analysis is intended to be transparent, and relatively conservative.

Step I estimates the gross acreage of land that is available for development and redevelopment in the city. This includes:

- Inventory of the vacant sites/acreage in the city (a)
- Selection of other sites that are underdeveloped and likely available for redevelopment (b)

Step II subtracts constrained lands (c) from the Step I results ((a + b) - c). Constrained lands include sites that lack needed urban infrastructure (for example, sites without sewer service), and also include physical and regulatory barriers to development (such as environmentally sensitive areas, historic landmarks, flood hazards, etc.). This is the step we're discussing now.



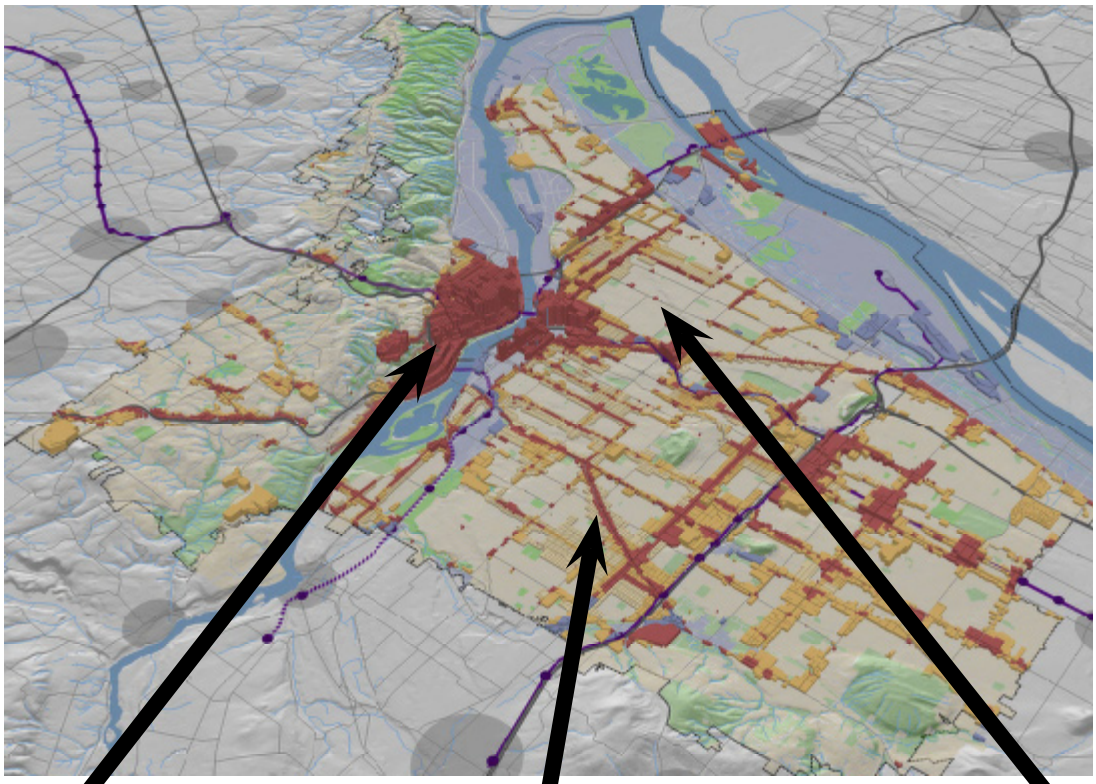
Step III examines market factors, past development trends, and expected near-term infrastructure improvements. In this step, the capacity estimate for some areas may be adjusted upward or downward by some factor (d).

Step IV combines the results of Steps I through IV into a "Default Scenario," and estimates the net acreage of land available for development and redevelopment in the city ((a + b) - c)*d. The result is a capacity estimate, expressed as the number of new dwellings that can be accommodated. The default scenario is based only on existing policy and development allowances.

Step V creates other scenarios based on desired outcomes (Portland Plan Goals and Objectives).

The Comprehensive Plan and Development Capacity

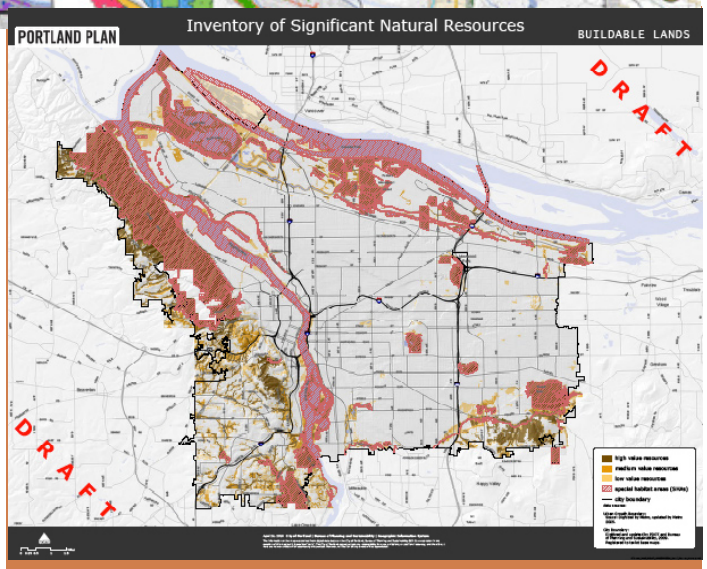
The Comprehensive Plan sets expectations about what kind of future development may occur in different parts of the City. It is implemented through policy, zoning, and public investments (Capital Improvement Plans). The model to the right illustrates how much development intensity is allowed under the current Comprehensive Plan and zoning. Darker areas represent areas with the greatest allowances for development.



Go to the **Portland Plan Atlas** for the complete set of constraint maps used in this analysis: www.pdxplan.com

Key Term: Constraints

'Constrained land' is a term used in Oregon's land use planning system to define the features of land, in addition to zoning, which may limit the intensity of future development (and therefore the distribution of future housing or jobs). The State identifies a list of specific constraints that must be considered, at minimum. Additional constraints may also be identified. Constraints could be market, regulatory, and/or physical factors that impact development feasibility. The term 'constraint' does not imply that these factors are necessarily undesirable, or leading to negative outcomes. For example, land near the bank of a river may be considered fully or partly 'constrained' in this model from reaching full zoned capacity for housing and jobs, but in reality the closeness to natural areas or a river may increase the desirability of a parcel and likelihood of development.



The **Natural Resources Inventory** is one example of a 'constraint'. It identfies environmetally-sensitive lands based on methodology developed in coordination with Metro and other

Key Term: Vacant or Underutilized Land

Additional capacity for jobs and housing was calculated only for properties that are considered vacant or underutilized. Rules were applied to identify these properties based on their zoning and location:

- Industrial parcels (IS zones) were considered vacant or underutilized only if tax records show the property vacant and without floor area;

- Low and medium density residential parcels were considered vacant or underutilized based on their size and the density allowed by zoning. In the single family (R2.5 through RF), if existing development is 33% or less of the allowed density, the property was considered underutilized. Multi-family parcels (R1 through R3 and IR zones) were considered vacant or underutilized if existing development is 20% or less of the allowed density;

- High-density residential parcels (RH & RX zones) were considered vacant or underutilized if the square footage listed in the tax rolls amounts to 20% or less of their allowed floor area under current zoning;

- In commercial and mixed-use zones (CM, CS, CX, CN, CO, CG), parcels were considered vacant or underutilized if the square footage listed in the tax rolls amounts to 20% or less of the allowed floor area under current zoning; and

- In the Central City, a different model was applied, using both land values and built square footage. In the Central City, if a site was developed to 20% or less of the allowed square footage, AND if the site's improvement to land value ratio is 50% or less (e.g. $50K building on $26K land is underutilized, but $50K building on $25K land is not), it was considered underutilized.

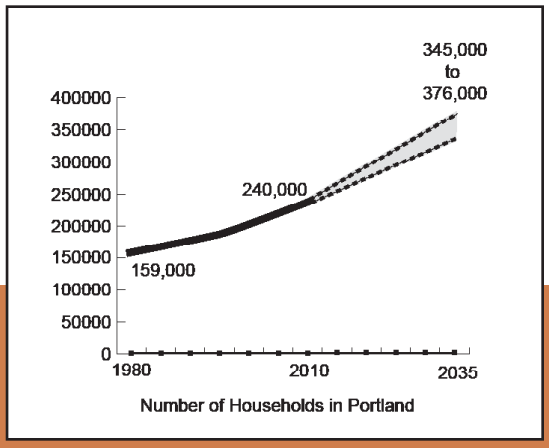
Household Forecast Snapshot

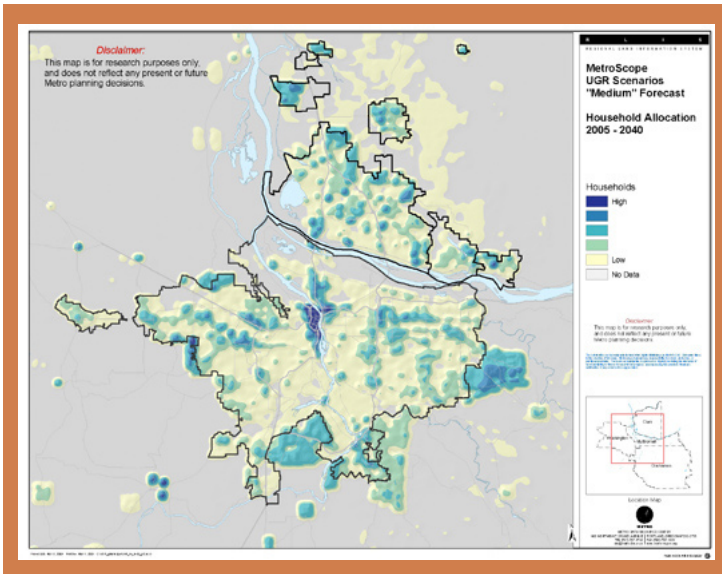
Portland is projected to gain 105,000 to 136,000 new households by 2035 (an annual percent rate change of 1.2 percent - 1.6 percent). This translates into a need for 3,500 - 4,500 new housing units each year. For context, approximately 48,000 new dwellings were built in Portland between 1996 and 2009. During the most recent housing boom (2004 – 2008) growth rates reached approximately 4,500 new dwellings each year.

Nationally, regionally, and within the city, household size is projected to decline in coming years. In 2005, 28 percent of households included children. By 2035, 25 percent of Portland households are expected to include children. Demand is expected to be highest for multi-family units. Currently, about 61% of the existing dwellings are single family detached homes. In contrast, In recent years (between 2004 and 2008) 62% of new housing units in Portland were apartments or condos.

The number of households in the Central City is projected to nearly triple by 2035. Over 5,000 new dwellings were built in the Central City during the most recent housing boom (2004 - 2008).

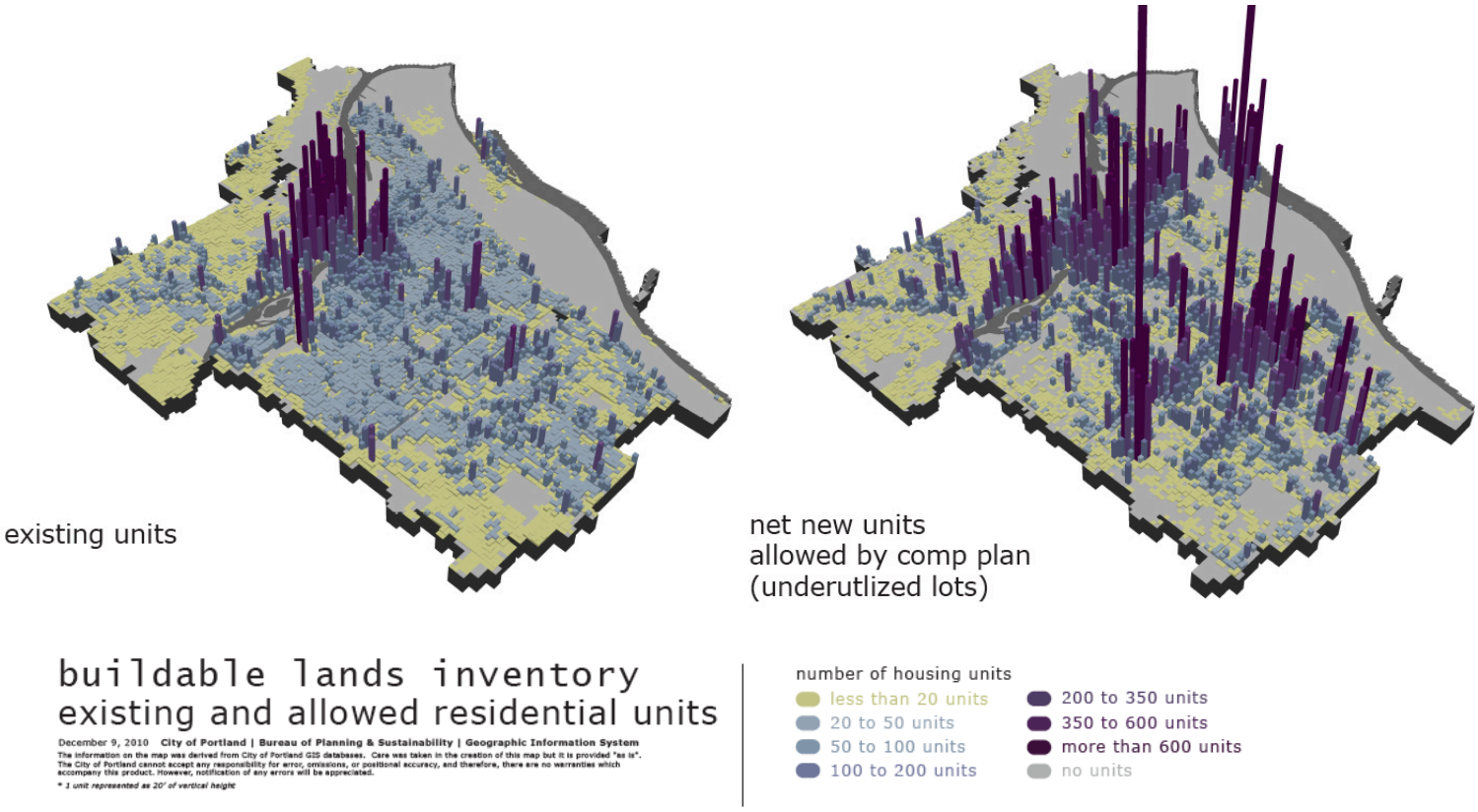
More information is available in the **Housing Demand and Supply Background Report**.





Household Distribution

This map shows Metro's projections for the distribution of new households by the year 2040 (medium growth scenario shown). Larger amounts of projected residential growth within Portland are anticipated in and around the Central City, along the Interstate Corridor, and around Gateway and other areas in Eastern Portland. Metro will update this distribution estimate in 2011.



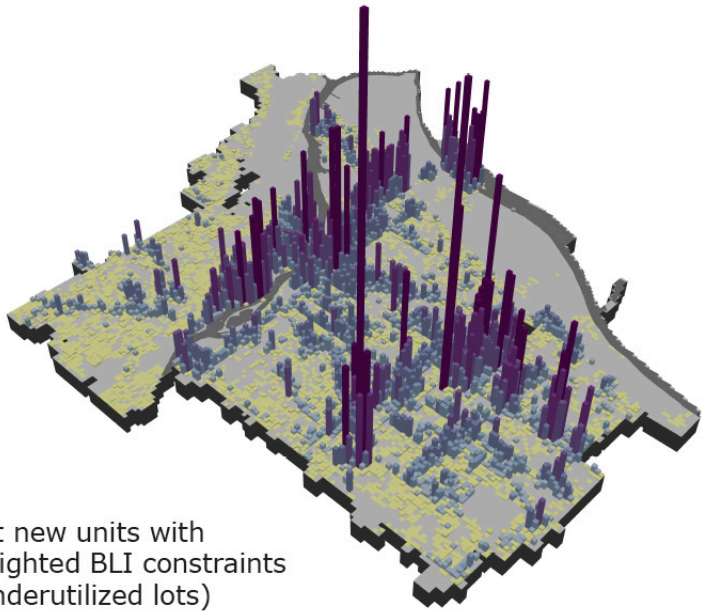
Preliminary Housing Conclusions

Zoned capacity in Portland is sufficient to meet projected housing need - that is, enough land in Portland is currently zoned to accommodate the projected number of new households. The total residential capacity of the City, with the existing Comprehensive Plan and zoning, is estimated at between 150,257 and 255,959 additional households. The low end of that range assumes no development of constrained lands, while the high end of that range assumes a percentage of constrained land will remain available for development (see the accompanying technical report for more information about those assumptions). There are approximately 266,000 households in Portland today. The existing Comprehensive Plan and zoning could accommodate 1.5 to 2 times that number of households.

Only 13 to 15% of that capacity is in land available for single dwelling residential development (detached or attached homes on their own lot). The largest concentration of single dwelling capacity is in the Powelhurst-Gilbert area.

About 15% of Portland's capacity is located in the Central City. Most of the remaining growth capacity is in mixed use corridors and neighborhood centers. Notable areas of high growth capacity are North Interstate Corridor, Gateway, Lents, Hayden Island, Montavilla, and some areas of East Portland. The areas of town with the least capacity for additional growth are some areas in Northeast Portland, and most of West Portland.

These conclusions include an assumption that between 450 and 2,150 Accessory Dwelling Units could be built over the next 25 years. We also assume that between 1,000 and 1,721 additional infill "skinny houses" could be built in the R2.5 and R5 zones, primarily in North/Northeast Portland, and in the Brentwood Darlington area.

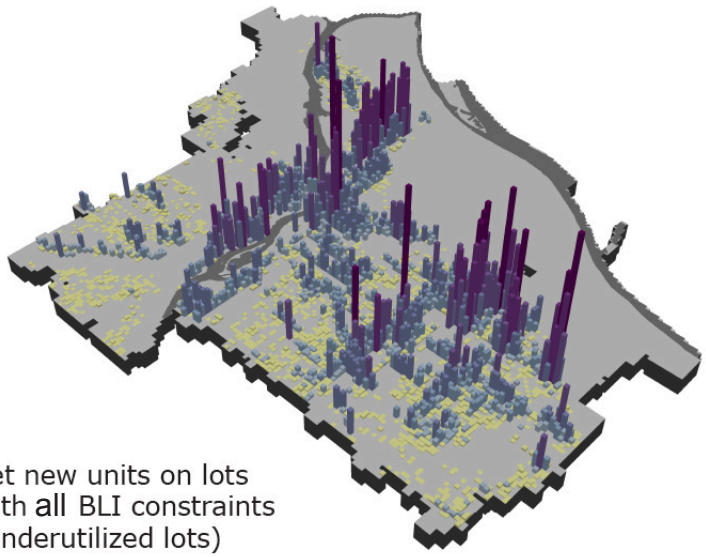


net new units with weighted BLI constraints (underutilized lots)

This map shows the distribution of potential new housing units after considering the likely impact of 'constraints', given current policies. A scoring system was used to evaluate how much impact each of the following factors have on housing development, and the estimated housing capacity was adjusted accordingly:

-Transportation system capacity
-Water service limitations
-Sanitary sewer and stormwater capacity
-Airport landing considerations
-Natural resources
-Environmental zoning
-Scenic areas
-Public open spaces and land
-Wellhead/groundwater protection
-Cultural resources
-Historic structures and districts
-Hazards (slopes, flooding, fire hazards)
-Brownfields
-Rural lands

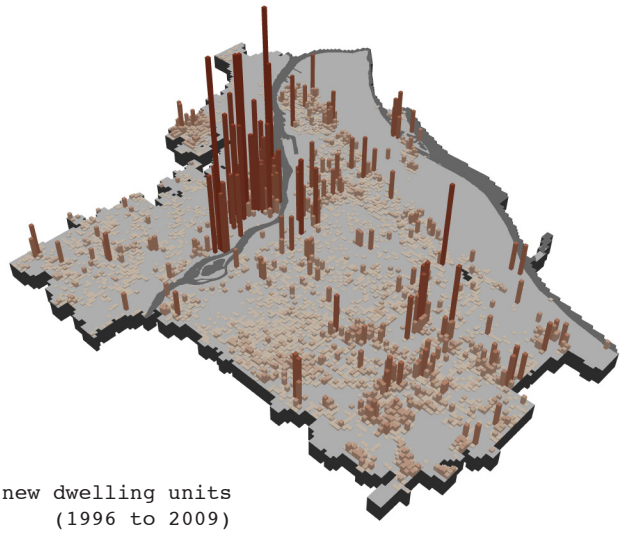
See the accompanying technical report for more information about how these constraints were evaluated.



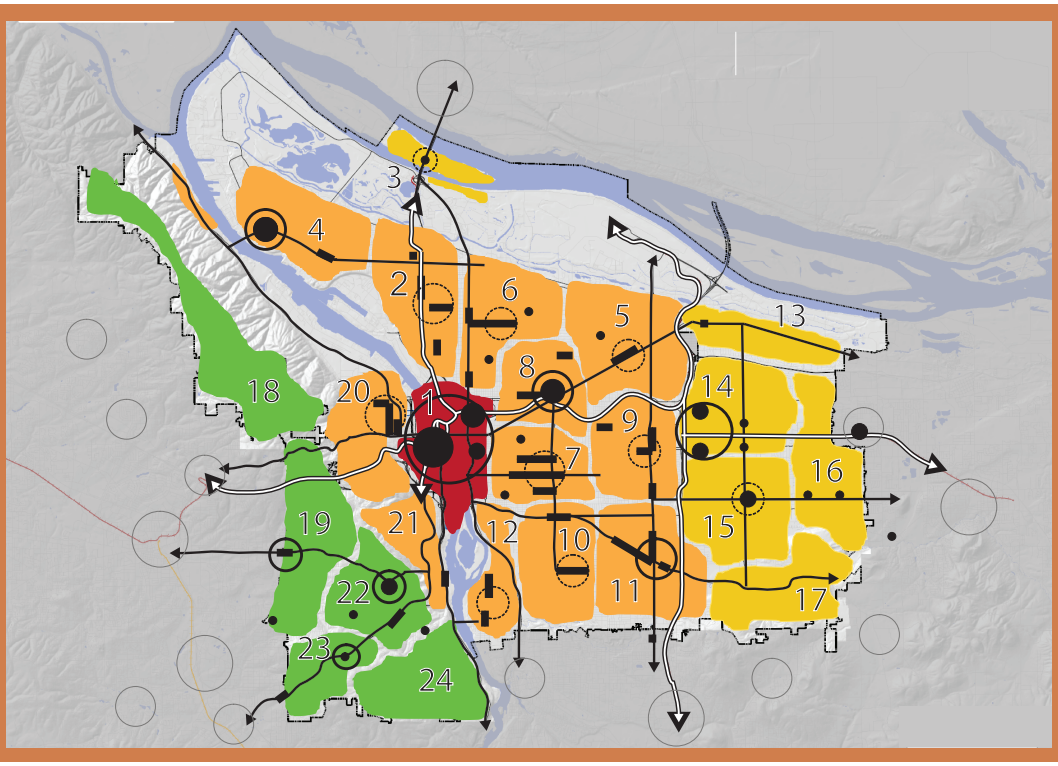
net new units on lots with all BLI constraints (underutilized lots)

This map shows the distribution of potential new housing units if all constrained land is removed from consideration.

One way to understand what might happen in the future is to evaluate past trends. The map below illustrates where new housing has been developed over the past decade. Taller, darker lines indicate a greater number of new dwelling units.



new dwelling units (1996 to 2009)



These "20-Minute Neighborhood" analysis areas were created as a framework for examining local data and trends. Each area includes several Portland neighborhoods. Most are centered on a commercial center, or main street.

Estimated Residential Capacity Assuming Existing Comprehensive Plan

Analysis Area	actual number of households TODAY	additional housing unit capacity (factoring in constraints) new SFR	new MFR	new TOTAL	Growth Factor by 2035
1	20,152	101	35,071	35,172	2.7
2	15,391	1,275	22,493	23,768	2.5
3	2,172	262	6,666	6,938	4.2
4	12,715	1,396	6,171	7,567	1.6
5	14,974	1,317	3,571	4,888	1.3
6	16,860	835	5,726	6,561	1.4
7	19,112	577	6,354	6,931	1.4
8	15,235	834	8,400	9,234	1.6
9	14,076	2,523	12,330	14,853	2.1
10	14,140	1,614	3,371	4,985	1.4
11	18,030	3,284	17,843	21,127	2.2
12	7,960	340	5,647	5,987	1.8
13	5,759	574	2,670	3,244	1.6
14	11,642	3,393	31,651	35,044	4.0
15	14,456	5,423	11,850	17,273	2.2
16	12,014	2,289	12,552	14,841	2.2
17	3,358	2,664	874	3,538	2.1
18	3,275	1,569	143	1,712	1.5
19	7,055	1,953	1,149	3,102	1.4
20	14,248	909	4,399	5,308	1.4
21	5,358	901	7,625	4,526	2.6
22	9,835	1,755	3,624	5,379	1.5
23	4,880	561	1,587	2,148	1.4
24	3,455	1,306	156	1,462	1.4

"SFR" = single family residential, "MFR" = multifamily residential
Note: These figures incorporate constraint deductions.

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The 'Growth Factor' is a way of quantifying the amount of change possible in each area. For example, a score of 2.0 would mean that there is capacity to double the number of households in a given area. A score of 1.0 would mean there is little or no capacity for growth. This esitimate is based on the amount of underutilized or vacant land available for housing development, how many new dwellings zoning allows on that land, and factoring in the impact of the constraints (like slopes, or environmental resources).

Employment Forecast Snapshot

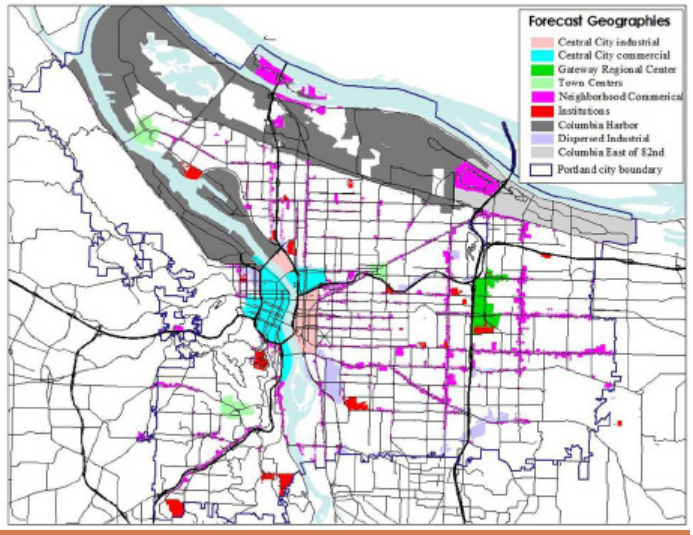
Between 2000 and 2006, the average annual growth rate (AAGR) of jobs in Portland was just 0.2%, compared to 0.5% in the three-county area, 0.7% in the seven-county MSA, 1.6 percent in Central Portland, and 3.2% in the outer-ring sections of the three-county area.

In 2006, Portland had 40% of the jobs in the 7-county metropolitan area (MSA). But, Portland's capture rate of regional job growth fell to 11% in the 2000-2006 period, down from about 27% in the 1980-2000 period. Central Portland has been an exception to this trend, as its growth has kept pace with the region.

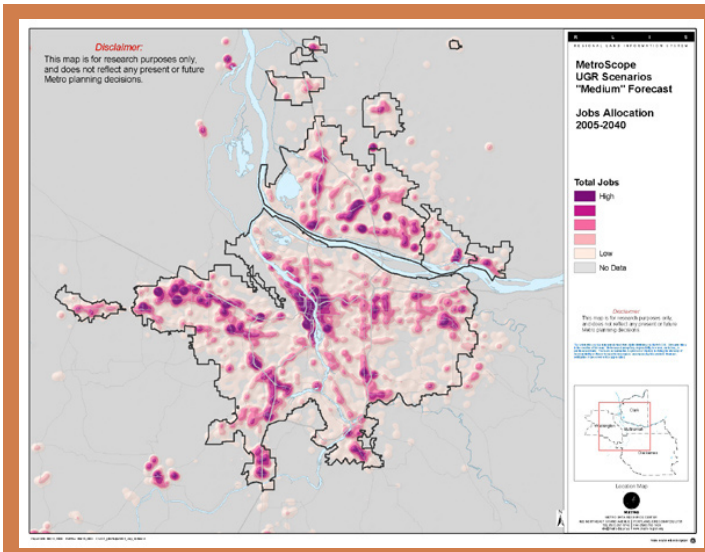
Services account for just over one-fifth (21%) of the City's employment base – followed by health and social services, arts/accommodations/food services, education, retail, and manufacturing

Between 2010 and 2035, the institutional sector is projected to grow by 37%, the office sector by 28%, the industrial sector by 18% and the retail and service sector by 17%. Schools and hospitals accounted for about 53,200 in-city jobs as of 2006 and for virtually all of the net job gains experienced in Portland from 2000-06. This is the City's fastest growing sector. Accommodating future job growth in the institutional sector may prove challenging because those uses are often adjacent to or within residential areas.

More information is available in the **Economic Opportunities Analysis Background Reports**



Portland's employment districts



Jobs Distribution

Metro's projections for the distribution of new jobs by the year 2040 (medium growth scenario). Within Portland, the largest job growth is anticipated in and around the Central City and to a lesser extent around Gateway. Metro will update this distribution estimate in 2011.

What is Portland's Land Capacity to Support Job Growth?

Recent trends show a declining city share of the region's jobs, despite an expanding share of the region's housing. Portland has advantageous infrastructure and workforce capacity, but tightening land supply. Portland's land supply for job growth has shifted away from greenfields to constrained land and redevelopment at higher densities. Narrowing land supply options have not slowed local housing development, but may limit employment growth. Land supply is affected by a variety of public choices, particularly in land use policy, infrastructure investments, and incentives.

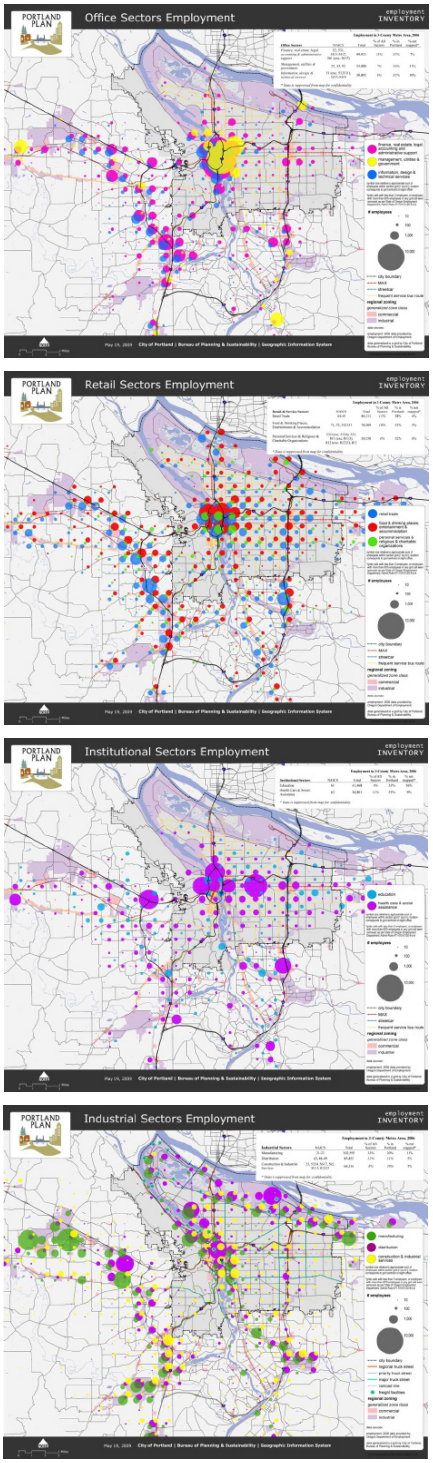
The draft mid-range employment forecast is for recovery to a 27-percent capture rate of regional job growth (about 150,000 new jobs; 1.3% AAGR), and translates into demand for 3,200 acres of employment land absorption. Land absorption is a measure of both the vacant land developed during the period and the sites redeveloped to higher density. The high range forecast is for 200,000 new jobs (36% capture rate, 1.6 AAGR) and absorption of 4,100 acres; the low range forecast is for 100,000 new jobs (18% capture rate, 0.9 AAGR) and absorption of 3,200 acres at lower densities.

To meet forecast land absorption, 4,200 acres of developable employment land has been identified, but roughly two thirds of that land has development constraints. Supply was measured by vacant (unimproved) land and "less improved sites," measured by an improvements-to-land-value ratio less than 0.5.

Approximately 1,400 acres of the developable supply are potential brownfield sites (may be contaminated), of which only 33% is estimated to be available for development by 2035 under current market conditions. An additional 1,350 acres of the supply has existing or proposed environmental overlays that allow but limit development, of which 45 percent is estimated to be available for development by 2035.

Comparing available supply to forecast demand by district geographies, significant shortfalls of developable land were identified for industrial district and institutional campus growth. The Economic Opportunities Analysis reports provide detailed estimates of land absorption and existing capacity within nine employment land geographies.

City estimates indicate that Portland will need about 600 more acres of industrial land and 360 more acres of institutional land to meet the mid-range job forecast.



Above: Regional distribution of existing employment by sector- office, retail, institutional, industrial. Larger copies of these maps are available online as part of the **Portland Plan Atlas** - www.pdxplan.com.

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Next Steps - Development of Growth Scenarios

Alternative scenarios are a tool used to explore ways the City might change it's growth policies, development regulations, and infrastructure investments to impact how and where the City grows over the next 25 years. In 2011 Portlanders will weigh the costs and benefits of several different 25-year growth scenarios, and use that information to develop a preferred growth concept. A default scenario, and two or more alternative scenarios will be produced, and after public discussion and refinement of the ideas, a 'preferred scenario' will be selected to guide the future Comprehensive Plan update. To inform that conversation, we will evaluate the performance of both the default scenario and alternative scenarios against a specific set of performance measures. These measures are rooted in the goals and objectives of the Portland Plan. Draft performance criteria are shown below.

Draft Growth Scenerio Evaluation Criteria

CATEGORY	MEASURE	WHAT QUESTION DOES THIS ANSWER?
	Housing mix (type, location and rough costs)	Given the constraints we have identified, our zoning, and market conditions, do we have the capacity to meet the housing need forecast?
	Acres available for employment/potential by sector	Do we have enough land to accommodate the employment need forecast? Do we have sufficient land for each of the four employment sectors (retail, office, institutional, industrial)? Which scenario best supports middle income job growth?
	Housing + transportation cost	Will Portland still be affordable? We will evaluate the relative affordability based on the location and type of housing we can accommodate.
	Active and Green Transportation	How will people get around in 2035? The location of housing and jobs will impact how many people can bike or walk, or take transit to work.
	Tree canopy	How will new growth impact tree canopy in our neighborhoods? Will one growth scenario have less of an impact than another?
	Watershed Impacts	How will the future development patterns effect stormwater management and watershed health?
	Carbon Emissions	We have a measurable target in the Climate Action Plan, to reduce our greenhouse gas emissions. How will the different land use scenarios impact our ability to meet that target?
	Air Quality	Will the location of new development expose more people to pollutants?
	Access to Nature	Given the location of available land, will new households have better access to nature?
	Complete Neighborhoods Index	This evaluation factor compares how much access people will have to local services and businesses. Will most of the new households be located in close proximity to vibrant neighborhood centers? Will we locate people near existing centers, or promote new centers?
	Revenue generation	How much revenue should be expected with the different development scenarios, based on land use and development type?
	Capital investment costs	How much will the city need to invest in capital projects to support the scenario?
	Ongoing maintenance costs	How much it will cost to maintain future infrastructure? Will the different scenarios impact maintenance costs? How can we shape development to reduce long term costs?

The Default Scenario

The 'Default Scenario' is an estimate of the result we would likely see over the next 25 years without any regulatory or investment changes. In other words, how will new jobs and housing likely be distributed in 2035, if we follow our existing zoning anf Comprehensive Plan? The default scenario is based only on existing policies and planned investments, and does not recommend or explore choices we could make with the Portland Plan to move in a different direction. The default scenario does consider the land supply (the results of the Buildable Lands Analysis). It will consider how the market will use the supply. For example, our existing plans have more capacity for growth than the likely market demand for housing, so the default scenario will state our assumptions about which areas will most likely be developed over the 25-year horizon. It will also consider how planned but not yet built infrastructure projects could impact land supply. The Default Scenario will be the starting point for consideration of other alternatives.

Other Scenarios

Other scenarios will illustrate different choices – for example, should we rely on neighborhood infill, main street development, or should we have a more central-city focused growth strategy? Scenarios also allow us to test different sequences of growth, or different investment options – should the Lloyd District be more fully developed before Gateway? How would a Barbur or Powell Boulevard light rail line impact growth patterns?

KEEP UP WITH THE CONVERSATION

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For More Information...

The Portland Plan Atlas includes maps of the different factors impacting land supply. Follow the "Learn About Your City" links at the Portland Plan website below.

For information on how Metro's forecast model, Metroscope, works, please check out Metro's website: www.metro-region.org.