EUGENE CITY COUNCIL
AGENDA ITEM SUMMARY

Work Session: Eugene Comprehensive Lands Assessment

Meeting Date: April 21, 2010 | Agenda Item Number: A
Department: Planning and Development | Staff Contact: Jason Dedrick
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ISSUE STATEMENT
This work session provides council with an opportunity to discuss and take action on the resolution to accept the products associated with the Eugene Comprehensive Lands Assessment (ECLA).

BACKGROUND
The goal of the comprehensive lands assessment is to determine whether Eugene has a sufficient supply of land within the Urban Growth Boundary (UGB) to meet the projected demand for residential, commercial, industrial, and public/semi-public land over the next 20 years. This work was undertaken in response to House Bill 3337 which requires Eugene and Springfield to each take action to establish separate urban growth boundaries. A resolution approved by City Council on December 9, 2009 accepted the draft land need associated with this work with the intent to review and refine this information by April 2010. Council has expressed an intent to take necessary actions for the council to adopt a Eugene-only UGB by the end of February 2011.

ECLA Land Need
The attached resolution includes two reports that summarize the final products (Attachment A). The Executive Summary provides an overview of the land need determined by ECLA. Previously this land need was presented as a range due to the uncertainty that existed around several outstanding issues. These issues have now been resolved so the land need is now expressed as a single value. This value represents a reasonable estimate of Eugene's land need in acres, if there were no changes to the assumptions in Exhibit A, policies or program areas that would affect the need for residential or employment lands. This value is supported by the Community Advisory Committee (CAC) and is a direct result of the resolution of outstanding issues that were identified in 2009. Attachment B includes a statement of support from the CAC that was agreed to by all members present at the final CAC meeting on April 13, 2009. It also includes the concluding statements associated with the outstanding issues identified in 2009. Attachment C is a list of issues that the CAC recommends addressing during the next phase of work (Envision Eugene).

While ECLA indicates that the City has a need for land, it does not necessarily mean that the UGB must be expanded by this amount. Rather, it triggers an examination of our current development regulations and policies. Only when the City has determined that it has done all it can reasonably do to accommodate growth within its existing boundaries does it determine whether the UGB must be expanded. The Envision Eugene project is the means through which we will address these and other related topics. Alternative growth scenarios will be studied as part of Envision Eugene and will include a community-wide discussion of our values and priorities for the next 20 years. These growth options will

be based on the data and analysis resulting from ECLA. They will also reflect policy or program changes proposed by the community as well as future market and development trends that could alter our land use patterns and overall land need.

Next Steps

Council acceptance of the attached resolution would complete the ECLA project. This information would then establish the foundation for the data in Envision Eugene. The components of ECLA referred to in Exhibit A will be formally adopted at the conclusion of the Envision Eugene process, when the City adopts a Eugene-only UGB.

As noted above, the ECLA results serve as the foundation for Envision Eugene, an effort which staff has already initiated to meet the City Council's request that the Eugene-only UGB be established by February 2011. The Envision Eugene project will determine the community preferences for how to address our land need and will ultimately establish a Eugene-only UGB. At the April 28th work session, staff will provide an overview of the Envision Eugene process including the legal framework, technical components and public outreach efforts.

RELATED CITY POLICIES

- The City Council has included ECLA as a priority item on the Planning Division Work Program.
- Growth Management Policies are related to ECLA, most notably policies 1, 2, and 5.
  - Policy 1 – Support the existing Eugene Urban Growth Boundary by taking actions to increase density and use existing vacant land and under-used land within the boundary more efficiently.
  - Policy 2 – Encourage in-fill, mixed-use, redevelopment, and higher density development.
  - Policy 5 – Work cooperatively with Metro area partners (Springfield and Lane County) and other nearby cities to avoid urban sprawl and preserve the rural character in areas outside the urban growth boundaries.

COUNCIL OPTIONS

Option A: Adopt the draft resolution associated with the Eugene Comprehensive Lands Assessment (Attachment A).

Option B: Make specific amendments to the draft resolution associated with the Eugene Comprehensive Lands Assessment (Attachment A).

Option C: Direct the City Manager to provide a revised resolution for consideration by Council.

CITY MANAGER'S RECOMMENDATION

The City Manager recommends Option A: Adopt the resolution associated with the Eugene Comprehensive Lands Assessment (Attachment A).

SUGGESTED MOTION

Move to adopt the draft resolution enclosed as Attachment A that accepts the Executive Summary attached as Exhibit A hereto and directs City staff to use the estimates and data documented in that Executive Summary as a basis for its work in the "Envision Eugene" project.

ATTACHMENTS

A. Draft Resolution with Exhibit A
   Exhibit A: Summary Reports
B. CAC Recommendation on ECLA & Outstanding Issues
C. ECLA Issues for Envision Eugene
D. Project Committee Members

FOR MORE INFORMATION

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RESOLUTION NO. 5004

A RESOLUTION CONCERNING THE EUGENE COMPREHENSIVE LANDS ASSESSMENT PROJECT'S 20-YEAR NEED DETERMINATION.

The City Council of the City of Eugene finds that:

A. In 2007, the Oregon Legislature passed House Bill 3337 requiring the City of Eugene establish an urban growth boundary ("UGB") that does not include the City of Springfield. To do so, the City must first make reasonable estimates of Eugene's 20-year housing and employment needs, its current buildable land supply (its "inventory") and amount of development that is likely to occur on that land. The City established the Eugene Comprehensive Land Assessment ("ECLA") project to make these estimates and determinations.

B. On December 9, 2009, the City Council approved Resolution 4994 which accepted ECLA's draft estimates and determinations, described in A., above. That Resolution stated that the City Council intended to review and refine those materials in April, 2010.

C. As directed by the City Council, since December, 2009, City staff has worked closely with an ECLA Community Advisory Committee to address key issues concerning the draft documents accepted by the City Council by Resolution No. 4994.

D. The ECLA project has now completed its analysis of the City's: (1) buildable lands inventory; (2) housing needs; (3) economic needs; and (4) needs for public and semi-public land. The results of this analysis are contained in the Executive Summary, attached as Exhibit A to this resolution. At the time the City Council takes final action to establish its new UGB, the Council will be asked to adopt a comprehensive Buildable Lands Inventory, Housing Needs Analysis, Economic Opportunities Analysis and Public and Semi-Public Land Needs Analysis.

E. The land need determination in the Executive Summary, attached as Exhibit A to this resolution, represents a reasonable estimate of Eugene's land need in acres if there were no changes to the assumptions in Exhibit A, policies or program areas that would affect the need for residential or employment lands. Changes to development regulations, assumptions, market responses, and other factors will be considered as the City takes steps, through the "Envision Eugene" project, to identify the ways in which its 20-year needs will be accommodated.

F. Based on Oregon laws, rules and judicial orders, the City is prohibited from *adopting* the supply and demand information until the City can also demonstrate that its new, Eugene-only UGB will contain sufficient land to accommodate the identified 20-year needs. Therefore, the City Council's adoption of this resolution, simply "accepting" the conclusions of the ECLA project, is an interim step in the longer process of adopting a new, Eugene-only UGB.

NOW, THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF EUGENE, a Municipal Corporation of the State of Oregon, as follows:

Section 1. The City Council hereby accepts the Executive Summary attached as Exhibit A hereto and directs City staff to use the estimates and data documented in that Executive Summary as a basis for its work in the "Envision Eugene" project.

Section 2. This Resolution is effective immediately upon its passage by the City Council.

The foregoing Resolution adopted the ____ day of April, 2010.

_____

Acting City Recorder

Summary

Section 1 EXECUTIVE SUMMARY

This report summarizes the Eugene Comprehensive Land Assessment (ECLA) of the sufficiency of land within Eugene's Urban Growth Boundary (UGB). State law requires that Oregon cities have a UGB with enough land to accommodate population and employment growth for a 20-year planning period. In 2007, the Oregon Legislature passed House Bill 3337 which directed Eugene and Springfield to establish separate Urban Growth Boundaries (UGBs).

This report concludes that Eugene has an approximately 1,400 acre deficit of residential land and nearly 400 acre deficit of employment land under baseline conditions. The purpose of this report is to allow the Eugene City Council to make a judgment about these conclusions, and to amend it as appropriate. If those conclusions, and the assumptions and analysis that lead to them, are deemed acceptable by the Eugene City Council, then the City will need to evaluate policies that increase the capacity of land inside the existing UGB (e.g., by increasing density), add land to the UGB, or both. That evaluation, called Envision Eugene, has started and will continue throughout 2010.

Table S-1 shows a summary of the land deficit identified under the baseline conditions. It shows that Eugene has a deficit of:

- 1,410 gross acres of residential land, with nearly 90% of the deficit in the Low Density Residential plan designation
- 388 acres of commercial land
- No industrial land deficit under the assumptions used in this analysis without a further discussion of Eugene's economic development goals, as discussed in Section 4.2

Table S-1. Summary of land deficit, Eugene UGB, 2011-2031

Plan Designation	Needed Land (Gross Acres)
Residential	**1,410**
Low Density Residential	1,244
Medium Density Residential	72
High Density Residential	94
Commercial	**388**
Industrial	**----**

Source: ECONorthwest

Section 2 INTRODUCTION

This report summarizes the Eugene Comprehensive Land Assessment (ECLA) of the sufficiency of land within Eugene's Urban Growth Boundary (UGB). State law requires that Oregon cities have a UGB with enough land to accommodate population and employment growth for a 20-year planning period. In 2007, the Oregon Legislature passed House Bill 3337 which directed Eugene and Springfield to establish separate Urban Growth Boundaries (UGBs).

This report addresses the requirements of HB 3337 in the context of other state requirements for a UGB evaluation including a Buildable Lands Inventory (BLI), an Economic Opportunity Analysis (EOA), and a Housing Needs Analysis (HNA). The information provided by these and related products supports estimates of (1) the need for buildable land (to accommodate employment and population growth), and (2) the amount of existing buildable land within the Eugene portion of the existing metropolitan UGB. A comparison of those estimates is the basis for determining whether Eugene has enough land to accommodate Eugene's expected growth over the 20-year planning period.

Using assumptions documented in technical appendices of this summary, the analysis concludes that Eugene has an approximately 1,400 acre deficit of residential land and nearly 400 acre deficit of commercial land under baseline conditions. The purpose of ECLA, this report, and its supporting appendices is to allow the Eugene City Council to make a judgment about these conclusions, and to amend them as appropriate. If those conclusions, and the assumptions and analysis that lead to them, are deemed acceptable by the Eugene City Council, then the City will need to evaluate policies that expand the capacity of land inside the existing UGB (e.g., by increasing density), add land to the UGB, or both. That evaluation, called Envision Eugene, has started and will continue throughout 2010.

2.1 BACKGROUND

The Metropolitan Area General Plan is the comprehensive plan that has guided growth in Eugene and Springfield since 1982. The Metro Plan has been amended several times since 1982; most changes have been small. A comprehensive update began in 1994. In 2004 the Plan was updated to incorporate policies from various earlier plans, such as the west Eugene Wetlands Plan and neighborhood refinement plans, and to incorporate the Eugene Growth Management Policies, which were adopted in 1998 and summarized policies found in other plans. These policies are generally considered the fundamental ones directing Eugene's actions regarding the management of urban growth and development.

In 2007, the Oregon Legislature passed House Bill 3337, directing Eugene and Springfield to establish separate Urban Growth Boundaries (UGBs) and to "demonstrate, as required by ORS 197.296, that its comprehensive plan provides sufficient buildable lands within an urban growth boundary established pursuant to statewide planning goals to accommodate estimated *housing needs* for 20 years."[1] The Eugene City Council directed staff to look not just at *residential* land (housing needs), but at *employment* and *public* land needs as well.

Given the specific requirements of HB 3337 and the time it had to meet those requirements, City staff decided to limit this project to collecting data and making extrapolations of land need based on *existing* policy and on and recent trends. That means, importantly, that this project is *not* about researching, recommending, or adopting *new* policies that could change those trends. The evaluation and adoption of such policies will happen after this project is completed.

Thus, the scope of work for ECLA is, by design, only part of a full UGB evaluation. It does not work back and forth between estimates of land need, new policies that might change land need (e.g., policies to increase density), and new estimates of land need. Rather, it aims at making a determination of whether recent trends in growth and the type of land development that accommodates that growth (or divergences from those trends based on reasonable expectations about changes in market conditions) would result, over 20 years, in an amount of buildable land consumption that is equal to or less than the amount of buildable land estimated to be in the existing UGB now.

2.2 ORGANIZATION OF THIS REPORT

This report has three additional sections, and is supported by nine appendices that provide technical details:

- **Section 2. Framework for Determining Land Need**
- **Section 3. Results of the Assessment**
- **Section 4. Policy Implications**
- **Appendix A: Buildable Land inventory**
- **Appendix B: Employment land need (Economic Opportunity Analysis)**
- **Appendix C: Residential land need (Housing Needs Analysis)**

[1] House Bill 3337 was codified in ORS 197.304. Emphasis added.

- **Appendix D: Public and semi-public land needs**
- **Appendix E: Glossary**
- **Appendix F: Acknowledgements**

This version of the summary report does not include the technical appendices, which will be presented in the final report and available following the City Council's action on April 21, 2010.

Section 3 FRAMEWORK FOR DETERMINING LAND SUPPLY AND NEED

For thirty-five years the basic goals of the Oregon land-use program have been interpreted and refined by new statute, administrative rules, and court cases. A local government is not at liberty to adopt whatever method it chooses (no matter how logical) to make a determination about whether it has sufficient land in its boundary to accommodate growth. Rather, it must comply with specific requirements—about data, assumptions, and methods of analysis—that have evolved over decades.

Those requirements are extensive. It is essential that any analysis comply with them. This chapter summarizes the most important of those requirements in a way that illustrates their logic: what it refers to as a *framework* for determining land supply and need. This section is a summary only: some of the technical appendices contain more extensive descriptions of various components of the evaluation framework.

3.1 THE BASIC RELATIONSHIPS

Evaluation of land needs inside a UGB is based on the following assumptions about some basic relationships:

- If population and employment are expected to grow, they will need built space (e.g., houses, offices, stores, factories, warehouses) to accommodate them.
- Unless the amount of growth is small and current vacancy rates are high, some new built space will need to be constructed.
- For new buildings to get constructed they require as inputs, among other things, land that can be physically, economically, and legally be built on.
- Historically, the majority of new buildings are built on vacant land that is not too constrained by physical characteristics (e.g., steep slopes) or public policy (e.g., restrictions on building in flood plains

or wetlands). But new buildings can also be built on land that was previously developed (i.e., redevelopment). Redevelopment accommodates the expected population and employment growth only to the extent that it is denser than the existing development it displaces.

The assessments that the state planning process requires derive directly from these relationships, and are intended to answer the following questions:

- **What is the demand / need for land?** The analysis addressing this question gets broken down into *residential* land (Goal 10, Housing: Housing Needs Analysis), *employment* land (Goal 9, The Economy: Economic Opportunities Analysis), and *other* land (primary public land for parks and other public purposes). The standard steps for the assessment:
  - Estimate growth in population and households and convert to an estimate of land need by making reasonable and documented assumptions about factors like persons per household, the composition of new housing supply by type (i.e., the housing *mix*), and the average *density* at which different housing types will be built.
  - Develop a statement of economic development objectives that articulates the City's economic development goals and aspirations. Based on this statement, identify the types of industries that meet the City's goals and aspirations and describe the characteristics of land needed by these industries (e.g., site size, location, proximity to transportation, etc.). Estimate land needs based on the site needs of these industries, as well as the estimated growth in employment and the average amount of land needed to accommodate this employment.
- **What is the amount of residential, commercial (office and retail), and industrial vacant, buildable land available to accommodate expected population and employment growth?** In larger cities like Eugene, that analysis is done using GIS information about land characteristics and making assumptions about types and levels of those characteristics that make land vacant and buildable or not.
- **How much will redevelopment of land now developed reduce the need for vacant, buildable land to accommodate expected growth?** That question is addressed by estimating either (1) how much growth will be accommodated via redevelopment and, hence, will not require buildable land, or (2) how much developed

land is redevelopable in the 20-year planning period so that it may be added to the supply of buildable land.

- **What does the comparison of the estimate of land need (demand) to the estimate of land supply suggest about whether the existing UGB has enough buildable land to accommodate 20 years of expected growth?**

At this level of description, the assessment process is relatively clear and logical. But there are many details required by statute, administrative rule, and court rulings that make the process complex. There is not space in this summary to go through all the details of the full assessment. Technical appendices provide those details (about the evaluation framework, assumptions, data, and analysis methods) for the three main drivers of urban land use: need for housing, employment, and public and semi-public uses.

Section 4 RESULTS OF THE ASSESSMENT

This section presents a pre-policy summary of the results of the ECLA baseline analysis of land sufficiency within the UGB. The baseline analysis is based on recent development trends and information about Eugene's current development patterns. The assumptions used to develop the baseline analysis assume that Eugene's future development will be similar to past and current development.

The purpose of developing a baseline analysis was to provide an estimate of land sufficiency as the basis for policy discussions about how land may develop in the future. Eugene's future development patterns may be substantially different from past development patterns. The discussion of how Eugene should develop in the future will occur during the Envision Eugene project, which will model possible future development patterns based on changes in market dynamics and/or changes in development policies. Envision Eugene will focus on discussions about land use efficiency measures (e.g., increasing densities or increasing redevelopment), economic development policies, and other land use issues.

This section includes five subsections: (1) results of the buildable lands inventory, (2) estimate of demand for employment land, (3) estimate of demand for residential land, (4) estimate of need for public and semi-public land, and (5) a comparison of the supply of land with the demand for land.

4.1 BUILDABLE LAND INVENTORY

The ECLA Buildable Lands Inventory (BLI) classifies all land within the Eugene UGB to determine the amount of vacant developable land that may be available for development over the 20 year planning period. The buildable land inventory is based on numerous datasets maintained by the Lane Council of Governments, City of Eugene, and many others, as well as data acquired from contractors or other external sources, such as the state or federal government. Appendix A documents the full list of data sets used to develop the inventory of buildable land.

All lands in the Eugene UGB were categorized into mutually exclusive categories. Table 1 shows the four categories of land: (1) committed, (2) protected, (3) developed, and (4) developable. Table 1 shows that Eugene's UGB has 34,446 acres, about 8% of which (2,758 acres) was classified as buildable developable land, which is vacant. The majority of developable land was in residential plan designations (1,679 acres) or in industrial designations (924 acres).

Table 1. Acres by Plan Designation and Development Status, Eugene UGB, 2008

	Non-Buildable Land		Buildable Land		All Land
Plan Designation	**Committed**	**Protected**	**Developable**	**Developed**	**Total**
Commercial	662	113	88	1,326	2,189
Commercial	532	82	84	1,145	1,843
Major Retail Center	131	30	4	181	346
Industrial	1,913	273	924	2,651	5,761
Light Medium Industrial	897	91	393	1,275	2,656
Heavy Industrial	646	18	174	1,036	1,873
Special Heavy Industrial	21	5	195	17	238
Campus Industrial	349	159	162	323	994
Residential	5,989	845	1,679	13,642	22,155
Low Density Residential	5,334	669	1,432	12,069	19,503
Medium Density Residential	440	109	180	1,253	1,982
High Density Residential	216	67	67	320	669
Government and Education	816	6	-	20	841
Mixed Use	131	12	10	145	297
Other	2,488	291	56	367	3,202
Total	**11,999**	**1,539**	**2,758**	**18,151**	**34,446**

Source: LCOG Buildable Lands Inventory
Note: Totals may be off slightly as a result of rounding.

4.2 EMPLOYMENT LAND DEMAND

The purpose of an economic opportunities analysis (EOA) is to determine if there is enough land inside the City's UGB to support economic growth over a 20-year planning period. To make this determination, the City must assess how much and what types of economic growth may occur in Eugene.

This section provides a baseline estimate of employment land needs based on assumptions about the amount of employment growth that will require new land, employment densities, and land need by site size. This section provides a *demand-based* approach to estimating employment land needs, which projects employment land need based predominantly on the forecast of employment growth, using recent employment densities (e.g., the number of employees per acre) to estimate future commercial and industrial land demand.

Goal 9 requires cities to state objectives for economic development (OAR 660-009-0020(1)(a)) and to identify the characteristics of sites needed to accommodate industrial and other employment uses to implement the economic development objectives (OAR 660-009-0025(1)). The City of Eugene has not stated objectives for economic development, making it very difficult to identify the characteristics of sites needed to implement the economic development objectives. **When Eugene decisionmakers develop this statement of economic development objectives, the analysis of commercial and industrial land demand may change, possibly substantially, to implement the economic development objectives and the potential for larger site needs.**

Table 2 presents a baseline estimate of employment growth, employment density, and employment land demand within the Eugene UGB for the 2011 to 2031 period. Table 2 is based on the following assumptions:

- **Employment growth.** Eugene will have about 116,959 covered employees in 2011 and employment will grow at an average annual rate of 1.4%. By 2031, Eugene's employment base will have grown to 154,136 employees, an increase of 37,177 employees. **Industrial, commercial, and retail employment will grow by 31,816 employees over the 20 year period.** Demand for land based on government employment is accounted for in the analysis of need for public and semi-public land.

- **Employment not requiring vacant land.** Some employment will locate on land that is already developed. Table 2 assumes that: (1) about 15% of commercial and retail employment will locate in non-

employment plan designations, mostly in residential plan designations; (2) about 10% of new employment will locate in existing built space; (3) about 17% of employment growth will be accommodated through redevelopment, with the largest amount of redevelopment in retail employment and the smallest share of redevelopment in industrial employment. **All told, about 39% of employment growth in Eugene, 12,348 employees, will not require vacant employment land.**

- **Employment requiring vacant land.** About 19,468 employees will require vacant land over the planning period.

- **Employment densities.** Table 2 assumes that employment densities will be similar to current employment densities: 13 employees per acre (EPA) for industrial land uses, 68 EPA commercial land uses, and 23 EPA for retail.

- **Gross acres of employment land.** Employment growth will result in demand for 679 net acres of land, which does not account for land needed for public rights-of-way. Analysis of current development patterns shows that industrial land has a net-to-gross conversion factor of 15% and commercial land has a conversion factor of 20%.

Based on these assumptions, **Eugene will need 818 gross acres of industrial, commercial, and retail land to accommodate employment growth over the 20-year planning period.**

Table 2. Baseline estimate of employment growth, employment density, and employment land demand, Eugene UGB, 2011 to 2031

	Employment Growth 2011 to 2031					
Land Use Type	New Employment	Emp. Growth not Requiring New Emp. Land	Employment on New Land	EPA (Net Acres)	Land Demand (Net Acres)	Land Demand (Gross Acres)
Industrial	6,762	1,352	5,410	13	416	490
Commercial	20,180	8,072	12,108	68	178	223
Retail	4,874	2,924	1,950	23	85	106
Total	**31,816**	**12,348**	**19,468**	**29**	**679**	**818**

Source: ECONorthwest
Note: Land need for government uses is accounted for in the analysis of public and semi-public land needs
Note: Totals may be off slightly as a result of rounding.

Table 3 shows the baseline estimate of employment land sufficiency and summarizes the three parts of determining employment land sufficiency:

- **Employment land demand.** The demand for employment land is based on the employment forecast presented in Table 2. Table

2 shows that Eugene will need a total of 490 gross acres of land for industrial uses and 329 gross acres of land for commercial and retail uses. The following assumptions were used to develop the land need shown in Table 3:

- *Future distribution of employment land by site size will be similar to the current distribution of land by site size.* The buildable lands inventory shows that more than one-third of employment is located on sites smaller than five acres and more than one-quarter of employment land is located in sites larger than 25 acres. The analysis in Table 3 assumes that the current distribution of employment land by site size will continue into the future. For example, Table 3 shows that about one-third of needed industrial land will be on sites smaller than 5 acres (179 acres of the 490 acres of industrial land demand), consistent with the current distribution of employment land by site size.

- *The average size of sites will be similar to the current average site size.* Goal 9 requires that an estimate of the number of sites needed by land use type and site size. Table 3 assumes that the average size of sites will remain the same throughout the planning period. For example, the average size of industrial sites between 5 to 10 acres in size is 7 acres. Table 3 assumes that this average will remain consistent over the planning period.

- **Employment land supply.** The supply of employment land shown in Table 3 is based on the buildable land inventory of vacant developable by site size, shown in detail in Appendix B. For example, Table 1 shows that Eugene has a total of 924 acres of industrial land, as does Table 3.

- **Employment land sufficiency.** Table 3 shows whether Eugene has a surplus or deficit of employment land by site size by comparing the demand for land with the supply of land. For example, Table 3 shows that Eugene has a deficit of 118 commercial sites smaller than 5 acres. This result was arrived at by subtracting the demand for commercial land on sites smaller than 5 acres (201 acres) from the supply of commercial land on sites smaller than 5 acres (83 acres). The sufficiency of sites was arrived at by the same method (i.e., demand for 559 commercial

sites smaller than 5 acres *minus* the supply of 198 commercial sites smaller than 5 acres *equals* a deficit of 361 sites).

Table 3 shows that Eugene has a deficit of commercial and retail sites in all sizes smaller than 50 acres, for a total deficit of 230 gross acres on 371 sites. Eugene has about 434 acres of industrial land, on 39 sites, in excess of the demand for industrial land. The industrial land supply includes one 195 acre site owned by the Metropolitan Wastewater Management Commission (MWMC). This site is located along Highway 99 at the edge of Eugene's UGB, is currently used for wastewater reclamation, and about 75% of the site is in wetlands. The potential employment uses on this site are limited to uses that are compatible with these limitations. MWMC is currently in negotiations with a potential lessee which could result in a change in use at this site, potentially impacting the status of this site in the BLI.

Table 3. Baseline estimate of employment land demand, employment land supply, and employment land sufficiency, Eugene UGB, 2011 to 2031

Land Use Type by Broad Plan Designation Categories	Site size (gross acres)					Total (gross acres)
	Less than 5	5 to 10	10 to 25	25 to 50	More than 50	
Land Demand						
Land (gross acres)						
Industrial	179	93	86	66	66	490
Commercial (including Retail)	201	38	64	26	-	329
Number of Sites						
Industrial	224	14	6	2	1	247
Commercial (including Retail)	559	6	5	1	-	571
Land Supply						
Land (gross acres)						
Industrial	256	160	152	104	252	924
Commercial (including Mixed Use)	83	16	-	-	-	99
Number of Sites						
Industrial	248	24	9	3	2	286
Commercial (including Mixed Use)	198	2	-	-	-	200
Land Surplus (Deficit)						
Land (gross acres)						
Industrial	77	67	66	38	186	434
Commercial (including Retail)	(118)	(22)	(64)	(26)	0	(230)
Number of Sites						
Industrial	24	10	3	1	1	39
Commercial (including Retail)	(361)	(4)	(5)	(1)	0	(371)

Source: ECONorthwest
Note: Totals may be off slightly as a result of rounding.

The baseline estimate of employment land sufficiency was developed using a *demand-based* approach to estimating employment land needs, which projects employment land need based predominantly on the forecast of employment growth, using recent employment densities (e.g., the number of employees per acre) to estimate future commercial and

industrial land demand. Goal 9 requires that cities consider their objectives for economic development when developing an estimate of employment land need. The City of Eugene has not stated objectives for economic development as required by Goal 9, making it very difficult to identify the characteristics of sites needed to implement the economic development objectives. **When Eugene decisionmakers develop this statement of economic development objectives (required by Goal 9), the analysis of commercial and industrial land demand may change, possibly substantially, to implement the economic development objectives.**

4.3 RESIDENTIAL LAND DEMAND

House Bill 3337 requires that the City of Eugene establish an urban growth boundary (UGB) and demonstrate that there is enough land within the UGB to accommodate estimated housing needs for 20 years. This section presents a baseline housing needs analysis that makes this determination, consistent with requirements of Goal 14, ORS 197.296, and OAR 660-008. The methods used for this study generally follow the *Planning for Residential Growth* guidebook, published by the Oregon Transportation and Growth Management Program (1996).

The first step in a housing needs analysis to project the number of *new* housing units needed during the planning period. Table 4 shows an estimate of new housing in Eugene for the 2011 to 2031 period, based on historical data. The projection is based on the following assumptions:

- Population will increase by 33,900 people from 2011 to 2031, as forecast in Lane County's adopted population forecast.
- About 5.5% percent of the new population or 1,865 people will locate in group quarters, based on the share of population in group quarters from the 2007 Census and the assumption that the share of population in group quarters will not change.
- The average household size will continue to be 2.25 people per household, based on information from the 2007 Census, a "safe harbor" assumption established in OAR 660-024-0040(8)(a).
- Vacancy rates for all housing types will be 5.0% based on recent vacancy rates in Eugene.
- The mix of housing is 61% single-family housing types and 39% attached housing types. The housing mix is based on long-term trends in the mix of Eugene's housing. The mix of 61%/39% is based on the mix of housing in Eugene in 2007.

Based on the assumptions shown in Table 4, Eugene will need 14,951 new dwelling units to accommodate population growth between 2011 and 2031, not including new group quarters. The baseline forecast of demand for new housing units may change as the City considers policy options to accommodate growth within the existing UGB, through the Envision Eugene project.

Table 4. Baseline forecast of demand for new housing units, Eugene UGB, 2011-2031

Variable	Estimate of Housing Units (2011-2031)
Change in persons	33,900
minus Change in persons in group quarters	1,865
equals Persons in households	32,036
Average household size	2.25
New occupied DU	14,239
times Aggregate vacancy rate	5%
equals Vacant dwelling units	712
Total new dwelling units (2010-2030)	14,951
Dwelling units by structure type	
Single-family detached	
Percent single-family detached DU	61%
***equals* Total new single-family DU**	**9,120**
Single-family attached	
Percent single-family attached DU	7%
Total new single-family attached DU	**1,047**
Two to four units	
Percent apartment DU	10%
Total new two to four DU	**1,495**
Five or more units	
Percent apartment DU	22%
Total new five or more DU	**3,289**
Totals	
equals **Total new dwelling units (2010-2030)**	**14,951**
Dwelling units needed annually	748

Source: Calculations by ECONorthwest based on Eugene's adopted population forecast and US Census data.
Note: Totals may be off slightly as a result of rounding.

Some of the 14,951 dwelling units shown in Table 4 will not require new land because they will locate on land that is currently developed. Redevelopment over the 2001 to 2008 period was about 8% of new dwellings built during that period (527 of the new 6,532 dwelling units built over the eight year period).[2]

[2] For the purposes of ECLA, residential redevelopment is development that occurs on land with existing development, where the new development results in an increase in housing capacity. In

The baseline forecast assumes that the redevelopment rate will be the same as the recent rate and will remain stable over the 20 year planning period. **The result of this assumption is that 1,197 dwellings will locate on land with existing development and that Eugene will need to provide land for 13,754 new dwelling units.**

Table 5 shows the forecast of new housing units in Eugene for the period 2011 to 2031, using baseline assumptions. The baseline forecast of new housing units uses the assumptions about housing mix and redevelopment discussed above, as well as the following assumptions, based on recent data:

- **Residential density** will be the same as achieved densities over the 2001 to 2008 period: 5.4 dwelling per net acre single-family detached, 20.2 dwelling per net acre single-family attached, 8.6 dwelling per net acre for structures with two to four units, and 24.1 dwelling per net acre for structures with five or more units.

- **The net to gross factor,** which converts from net acres to gross acres, will be 22% based on the average amount of land used for public right-of-ways, infrastructure, and other public uses in residential development during the 2001 to 2008 period.

Table 5 shows the baseline forecast assumes an average density of 7.3 dwelling units per net acre (about 5.7 dwelling units per gross acre). Based on the mix and density assumptions, **Eugene will need about 2,420 gross residential acres to accommodate new housing between 2011 and 2031.**

Table 5. Baseline forecast of new housing by type and density, Eugene UGB, 2011-2031

			Net Acres			Gross Acres	
Housing Type	DU Requiring New Residential Land	Percent	Density (DU/net ac)	Net Res. Acres	Net to Gross Factor	Gross Res. Acres	Density (DU/gross res ac)
Single-family detached	8,390	61%	5.4	1,554	22%	1,992	4.2
Single-family attached	963	7%	20.2	48	22%	62	15.5
Two to four units	1,375	10%	8.6	159	22%	204	6.7
Five or more units	3,026	22%	24.1	126	22%	162	18.7
Total	**13,754**	**100%**	**7.3**	**1,887**		**2,420**	**5.7**

Source: ECONorthwest
Note: Green shading denotes assumptions based on residential development during the 2001 to 2008 period
Note: Totals may be off slightly as a result of rounding.

Table 6 provides an allocation of housing units by Eugene's three residential plan designations and commercial plan designations. Dwelling

this analysis, redevelopment does not include dwellings that will be demolished and replaced on a one-for-one basis because these dwellings are replaced at the same site and do not increase the capacity of existing residential land.

units were allocated to plan designations based, in part, on recent development trends within each plan designation and on the type of development allowed in each plan destination. Table 6 also provides an estimate of the gross acres required in each designation to accommodate new housing units for the 2011-2031 period. The acreages are based on the gross density assumptions shown in Table 5.

Based on the housing needs analysis, dwellings have been allocated by plan designation and type:

- Sixty-three percent of new dwelling units will locate in the Low Density Residential designation, which allows single-family detached, accessory dwelling units, and manufactured homes. This designation also allows duplex, single-family attached, and some multifamily dwellings.
- Seventeen percent of new dwellings will locate in the Medium Density Residential designation, which allows single-family detached, single-family attached, manufactured home parks, townhomes, duplexes, and multifamily dwellings.
- Fifteen percent of new dwelling units will locate in High Density Residential or Mixed-Use designations, which allow single-family detached, townhomes, manufactured (single detached and manufactured home parks), duplexes, and multifamily.
- Five percent of new dwelling units will locate in commercial plan designations. These units will generally occur in mixed-use developments and in nodal areas.

Table 6. Allocation of new housing units by plan designation, Eugene UGB, 2011-2031

	Plan Designation								Total	
	Low Density Residential		Medium Density Residential		High Density Residential		Commercial Designations			
Housing Type	DU	Gross Ac	DU	Gross Ac	DU	Gross Ac	DU	Gross Ac	DU	Gross Ac
Single-family detached	8,129	1,966	261	26	0	0	0	0	8,390	1,993
Single-family attached	165	6	454	35	172	7	172	13	963	62
Two to four units	378	97	756	89	138	6	103	12	1,375	204
Five or more units	0	0	908	76	1,705	69	413	17	3,026	162
Total	**8,672**	**2,069**	**2,379**	**226**	**2,015**	**82**	**688**	**42**	**13,754**	**2,420**
Percent of Acres and Units										
Single-family detached	59%	81%	2%	1%	0%	0%	0%	0%	61%	82%
Single-family attached	1%	0%	3%	1%	1%	0%	1%	1%	7%	3%
Two to four units	3%	4%	5%	4%	1%	0%	1%	1%	10%	8%
Five or more units	0%	0%	7%	3%	12%	3%	3%	1%	22%	7%
Total	**63%**	**86%**	**17%**	**9%**	**15%**	**3%**	**5%**	**2%**	**100%**	**100%**

Source: ECONorthwest
Note: Single-family attached dwellings and structures with two to four units in commercial designations are assumed to develop at the density assumptions used for medium density plan designations. Structures with five or more units in commercial designations are assumed to develop at the densities assumed for high density plan designations.
Note: Totals may be off slightly as a result of rounding.

The residential land needs presented in Table 6 may change based on work in Envision Eugene that includes policy decisions and land use efficiency measures related to changes in the baseline assumptions, which may result in increased or decreased land need.

The next step in the housing needs analysis is to compare the capacity for existing vacant residential land with the demand for new dwelling units. Table 7 shows that **Eugene's vacant residential land has capacity to accommodate approximately 8,277 new dwelling units**, based on the following assumptions:

- **Vacant land.** Eugene has about 1,679 acres of vacant land in residential plan designations. Vacant land is on slopes ranging from 0% to 30% slope. Undeveloped land on slopes greater than 30% were not considered buildable in the BLI.
- **Recent densities.** Future development will occur at the same densities as development over the 2001 to 2008 period. Development on slopes generally occurred at lower densities than development on flat land.
- **Land for rights-of-way.** The amount of land needed for rights-of-way (e.g., conversion of net acres to gross acres) will depend on the parcel size, ranging from no land needed on lots one acre and smaller, where rights-of-way are already developed, to an average of 22% on lots 5 acres and larger, where rights-of-way will need to be developed.

Table 7 shows that Eugene has demand for 13,066 new dwelling units in residential plan designations (not including demand for 688 dwelling

units in commercial plan designations). Table 7 shows that **Eugene has a deficit of land to accommodate 4,789 new dwelling units.**

Table 7. Comparison of capacity of existing residential land with demand for new dwelling units, Eugene UGB, 2011-2031

Plan Designation	Capacity (DU Potential)	Demand for DU	Residential Capacity -- Surplus or Deficit
Low Density Residential	4,924	8,672	-3,748
Medium Density Residential	1,917	2,379	-462
High Density Residential	1,436	2,015	-579
Total	**8,277**	**13,066**	**-4,789**

Source: ECONorthwest
Note: Totals may be off slightly as a result of rounding.

Table 8 shows the land needed to accommodate the 4,789 new dwelling units needed in Eugene's UGB over the 20 year planning period. Table 8 assumes that development will occur at the same densities used in Table 7. Based on this assumption, **Eugene will need 963 gross acres of additional residential land to accommodate new housing over the 2011 to 2031 period.**

Table 8. Deficit of land needed to accommodate new dwelling units, Eugene UGB, 2011-2031

Plan Designation	Needed Dwelling Units in Excess of Land Capacity	Density (DU/Gross Acre)	Land Deficit (Gross Acres)
Low Density Residential	3,748	4.2	895
Medium Density Residential	462	10.5	44
High Density Residential	579	24.6	24
Total	**4,789**		**963**

Source: ECONorthwest
Note: Totals may be off slightly as a result of rounding.

In addition to the housing types shown in Table 6, Eugene needs to plan for additional group quarters. The analysis assumes the City will add 1,865 persons in group quarters between 2011 and 2031. Assuming that the household size of group quarters is 1.6 persons per household[3] and that group quarters develop at the same density as structures with 5 or more units in the High Density Residential plan designation, Eugene will need about 47 gross acres of land for group quarters over the 20-year period.

[3] This household size estimate is based on 2008 American Community Survey data about the number of occupied units with five or more units (17,235 units) and the population living in structures with five or more units (27,925 persons).

The baseline residential land need described in this section, 963 acres of residential land plus 47 acres of land for group quarters, may change based on the discussions occurring as part of the Envision Eugene project.

4.4 PUBLIC AND SEMI-PUBLIC LAND DEMAND

This section summarizes the forecast of needed public and semi-public land in Eugene for the period 2011 to 2031 based on the following assumptions:

- **Parkland** need is based on the City's plans for parkland acquisition described in the *Parks, Recreation & Open Space (PROS) Project and Priority Plan* This plan was adopted in 2006 and identifies acquisition and development priorities for a population consistent with that identified in ECLA. Parkland need is based on the specific projects identified in this plan. This need is characterized as follows:
    - 1,980 acres of parkland need are identified in this plan. Of this total, 350 are inside the UGB, while the remaining 1,630 are outside the UGB.
    - Of the 350 acres of future parkland need inside the UGB, it is assumed that 15%, or approximately 50 acres will be located on lands identified as "protected" in ECLA and will not require land that would otherwise be available for development. These 50 acres are a mixture of wetlands and riparian corridors.
    - 140 acres of parkland need identified in the plan are already owned by the City, but are located outside the UGB. These areas include the Golden Gardens expansion area and the Santa Clara Community Park.
    - 160 acres of parkland need are identified in residential areas within the UGB. This parkland will locate on land that would otherwise be used for residential development, reducing the supply of residential land available to accommodate housing over the planning period.
    - The parkland need identified in the plan assumes no expansion of the UGB. If new land is brought into the UGB to accommodate residential development, more parkland (especially for neighborhood parks) may be needed to serve that geographic area.

- **School** land needs are based on the estimate of land need provided by the school districts.
    - The 4J School District does not expect to need new land over the 2011 to 2031 period.
    - The Bethel School District expects to need two sites for future schools: (1) an 80-acre site for a high school and (2) a 40-acre site for a K-8 school. These needs could increase if the City expands the UGB and brings more residential land into the UGB in the School District. The District currently owns an 80-acre site that is located outside but adjacent to the UGB. The Bethel School District does not have surplus property.[4]
- **Public operations and facilities** land needs may be less in the future than the current level of service (6.6 gross acres per 1,000 people) because Eugene already has most of the large public facilities the City is likely to need over the 20-year planning period. Recently built public facilities include: a new Federal building, a new Library, a new site for EWEB facilities, and new fire and emergency facilities. Cities like Eugene typically need new public facilities, as existing facilities pass their useful life span or population grows, such as police stations, fire stations, and other civic buildings. In addition, the University of Oregon expects to need an additional 30 acres for development over the planning period.[5] Table 9 shows a need for 2.9 acres per 1,000 people or 100 gross acres of land for public operations and facilities.
- **Semi-public** land need is forecast to be similar to historical needs, at about 1.3 acres per 1,000 people or 45 gross acres over the 20-year period.

[4] This information was provided by Pat McGillivray, Communications Relations for the Bethel School District in an interview on March 12, 2009.

[5] Christopher Ramey, Associate Vice President at the University of Oregon, said that the University expects to purchase and develop roughly 30-acres over the 20-year planning period.

Table 9. Need for public and semi-public land, Eugene UGB, 2011-2031

Type of Use	Assumed Need (Ac/1,000 Persons)	Estimated need (gross acres) 2011-2031
Schools	3.5	120
4J School District	none	none
Bethel School District	3.5	120
Parks and Open Space	NA	300
Existing land need in the UGB	NA	160
Golden Gate and Santa Clara	NA	140
Public Facilities and Operations	2.9	100
Semi-Public	1.3	44
Total	7.8	564

Source: ECONorthwest
Note: Totals may be off slightly as a result of rounding.

The demand for public and semi-public land will be accommodated in residential and commercial plan designations, as described in the next section.

4.5 SUMMARY OF LAND SUFFICIENCY WITHIN THE EUGENE UGB

This section summarizes the sufficiency of land within the Eugene UGB to accommodate expected growth over the planning period. The preceding sections show that Eugene has a deficit of commercial and residential land. This conclusion may change or the size of the deficits may change based on discussions in Envision Eugene about land use efficiency, economic development policies (including the need for industrial land with different characteristics than Eugene's current supply of industrial land), and other land use issues.

Table 10 shows Eugene's commercial and industrial land sufficiency:

- **Commercial land deficit.** Eugene has demand for 486 acres of commercial land based on the following needs:
  - 329 gross acres of commercial land for employment uses
  - 114 gross acres of commercial land for public and semi-public uses
  - 43 gross acres of commercial land to accommodate residential development that occurs in commercial plan designations

  Eugene has 98 vacant commercial acres. Based on the 486 acres of commercial land need and the 98 acres of vacant commercial land, Eugene has a deficit of 388 acres of commercial land.

- **Industrial land excess.** Eugene has about 434 acres of industrial land in excess of demand for industrial land. The industrial land supply includes one 195 acre site owned by the Metropolitan Wastewater Management Commission, which has limited uses. When Eugene decisionmakers develop a statement of economic development objectives, the analysis of industrial land demand may change, possibly substantially, to implement the economic development objectives.

Table 10. Commercial and industrial land surplus or deficit, Eugene UGB, 2011-2031

	Land Supply (Gross Acres)	Land Demand (Gross Acres)	Land Surplus or Deficit (Gross Acres)
Commercial	98	486	(388)
Industrial	924	490	434

Source: ECONorthwest
Note: Totals may be off slightly as a result of rounding.

Table 11 shows that Eugene has a total deficit of 1,411 gross acres of residential land:

- **Low Density Residential deficit.** Eugene has a deficit of 1,244 acres of Low Density Residential (LDR) land based on the following uses:
  - 895 gross acres of LDR land for new housing
  - 291 gross acres of LDR land for public and semi-public uses, including 160 acres for parkland to address existing need within the UGB
  - 58 gross acres of LDR land to accommodate employment
- **Medium Density Residential deficit.** Eugene has a deficit of 72 acres of Medium Density Residential (MDR) land based on the following uses:
  - 44 gross acres of MDR land for new housing
  - 10 gross acres of MDR land for public and semi-public uses
  - 18 gross acres of MDR land to accommodate employment
- **High Density Residential deficit.** Eugene has a deficit of 94 acres of High Density Residential (HDR) land based on the following uses:
  - 24 gross acres of HDR land for new housing
  - 47 gross acres of HDR land for group quarters

- 10 gross acres of HDR land for public and semi-public uses
- 13 gross acres of HDR land to accommodate employment

Table 11. Residential land surplus or deficit, Eugene UGB, 2011-2031

Plan Designation	Land Deficit (Gross Acres)
Low Density Residential	
New Housing	895
Public and Semi-Public Uses	291
Employment in Residential Plan Designations	58
Total Low Density Residential	**1,244**
Medium Density Residential	
New Housing	44
Public and Semi-Public Uses	10
Employment in Residential Plan Designations	18
Total Medium Density Residential	**72**
High Density Residential	
New Housing	24
Group Quarters	47
Public and Semi-Public Uses	10
Employment in Residential Plan Designations	13
Total High Density Residential	**94**
Total Residential Land Deficit	**1,410**

Source: ECONorthwest
Note: Totals may be off slightly as a result of rounding.

Table 12 summarizes Eugene's land deficit for the 2011 to 2031 period:

- Eugene will need 1,410 acres of additional residential land
- Eugene will need 388 acres of additional commercial land
- Eugene does not need additional industrial land under the assumptions used in this analysis but may have need for additional industrial land based on discussion of Eugene's economic development goals, as discussed in Section 4.2

In addition, Eugene has identified parkland need for community parks in the north Eugene area and has purchased a total of 140 acres of parkland for Golden Gardens and Santa Clara parks. These parks would need to be brought into the UGB in order to extend urban services to them and meet the intended purpose of community parks. For this reason, consideration will need to be given to these areas if a UGB expansion process follows. However, it cannot automatically be assumed that these areas will be brought into the UGB. If they are not, the community parkland need in these geographic areas will not be

addressed as proposed in local park planning documents and the *Project and Priority Plan*.

Table 12. Summary of land deficit, Eugene UGB, 2011-2031

Plan Designation	Needed Land (Gross Acres)
Residential	**1,410**
Low Density Residential	1,244
Medium Density Residential	72
High Density Residential	94
Commercial	**388**
Industrial	**----**
Golden Gardens and Santa Clara Parks	**140**

Source: ECONorthwest
Note: Totals may be off slightly as a result of rounding.

Section 5 POLICY IMPLICATIONS

The main impetus for this project was HB 3337. In 2007, the Oregon legislature passed House Bill 3337, which is codified in ORS 197.304.[6] This is what the statute requires:

- **Separate Urban Growth Boundaries for Eugene and Springfield**: HB 3337 requires each city to "separately establish" its own UGB.
- **Residential Land Analysis**: HB 3337 requires each city to "demonstrate, as required by ORS 197.296, that its comprehensive plan provides sufficient buildable lands within an urban growth boundary established pursuant to statewide planning goals to accommodate estimated housing needs for 20 years."

[6] **197.304 Lane County accommodation of needed housing.** (1) Notwithstanding an intergovernmental agreement pursuant to ORS 190.003 to 190.130 or acknowledged comprehensive plan provisions to the contrary, a city within Lane County that has a population of 50,000 or more within its boundaries shall meet its obligation under ORS 197.295 to 197.314 separately from any other city within Lane County. The city shall, separately from any other city:

(a) Establish an urban growth boundary, consistent with the jurisdictional area of responsibility specified in the acknowledged comprehensive plan; and

(b) Demonstrate, as required by ORS 197.296, that its comprehensive plan provides sufficient buildable lands within an urban growth boundary established pursuant to statewide planning goals to accommodate estimated housing needs for 20 years.

(2) Except as provided in subsection (1) of this section, this section does not alter or affect an intergovernmental agreement pursuant to ORS 190.003 to 190.130 or acknowledged comprehensive plan provisions adopted by Lane County or local governments in Lane County. [2007 c.650 §2]

The Eugene City Council directed staff to expand the scope of the required analysis to include all lands: residential lands (as required by Goal 10, ORS 197.296 and HB 3337), employment lands (as required by Goal 9) and lands required for other uses (i.e., public and semi-public uses). In short, the ultimate question Eugene will have to address under HB 3337 is whether the currently-acknowledged UGB (lands west of Interstate 5) is adequate to accommodate identified needs for the next 20 years.

This study answers that question by presenting a "baseline" analysis that builds from recent trends. The baseline analysis indicates that Eugene has a deficit of residential and commercial land, and a surplus of industrial land. That conclusion, however, is not the final answer; the City must take additional steps to refine the technical analysis to comply with certain state policy requirements that were not addressed in this analysis. Broadly, these steps include:

- A determination of the "needed" residential density and mix as required by Goal 10 and ORS 197.296 and a refined analysis of housing land needs
- A statement of economic development objectives as required by OAR 660-009-0025 and a refined analysis of employment land needs, which could impact the need for industrial lands.
- Evaluation of measures to increase the development capacity of lands inside the UGB (sometimes referred to as "land use efficiency measures") as required by ORS 197.296(7-9) and OAR 660-024-0050(4)[7]
- Evaluation of UGB expansion alternatives if the land use efficiency measures do not result in enough additional capacity to meet identified land needs

The steps stated above are a simplification of the work that needs to be completed. Embedded in those steps are dozens of policy decisions that will require technical analysis and local review—and ultimately

[7] "If the inventory demonstrates that the development capacity of land inside the UGB is inadequate to accommodate the estimated 20-year needs determined under OAR 660-024-0040, the local government must amend the plan to satisfy the need deficiency, either by increasing the development capacity of land already inside the city or by expanding the UGB, or both, and in accordance with ORS 197.296 where applicable. Prior to expanding the UGB, a local government must demonstrate that the estimated needs cannot reasonably be accommodated on land already inside the UGB. If the local government determines there is a need to expand the UGB, changes to the UGB must be determined by evaluating alternative boundary locations consistent with Goal 14 and OAR 660-024-0060."

adoption—to comply with statewide land use policy. In short, considerable work lies ahead before the City can meet the requirements of HB 3337. The City has started working on these issues through the Envision Eugene project.

The baseline projection of land sufficiency within the UGB was developed with input from a Community Advisory Committee (CAC), composed of a broad range of stakeholders from Eugene. Below are some examples of key issues that add technical, procedural, and political complexity to the analysis. This is not a complete list of all the issues that the City will need to address as part of the Envision Eugene project:

Housing

- **Is Eugene providing enough affordable housing**? The Oregon state land-use program focuses on housing density and housing type, and requires cities plan for "housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels." Implicit in the program is the assumption that more multifamily housing not only increases the efficiency with which urban land is used and reduces the loss of farmland to urban development, but also provides denser, smaller, less expensive dwelling units that will be affordable to more households. The Oregon program does not, however, have specific tests directly related to affordability. This ambiguity is frequently a source of conflict in local and state review in that there is no correct or best way to make a determination of needed housing at particular price ranges in rent levels. Despite this ambiguity, Eugene must still make a determination about the needed housing density and mix.
- **What type and density of housing does Eugene need?** The type of permitted housing affects its density (dwelling units per acre), and density is a measure of the capacity of vacant, buildable land to accommodate population and employment growth. Assumptions about the future density of development are among the most contentious in a UGB assessment—and have been a source of contention on several recent projects in Eugene. Should one assume that future development will occur at the maximum permitted density, or at the average recent density of development? How fine should the disaggregation of the analysis be: one number for the overall average density of all residential development, or many numbers to address multiple zoning types, locational characteristics, and physical conditions? This issue relates to a core

requirement of the housing needs analysis: the determination of needed density and mix.

- **What are the appropriate locations for higher density housing types?** The residential land inventory did not identify a substantial amount of buildable land in the medium- and high-density residential (MDR and HDR) plan designations. The largest HDR site is about 30 acres and is west of Danebo road near Highway 126. What locations are appropriate for higher density housing types is a question that will ultimately need to be addressed in this planning process. The Infill Compatibility Standards and the Opportunity Siting committees have been working on these issues; the City will be required to demonstrate a match between land need and land inventory. Approaches for addressing this issue could include redesignation of lands designated for other uses. One example includes surplus sites owned by the Eugene 4J School District.

- **How much redevelopment should Eugene plan for?** Probably the most contentious issue for the CAC was the amount of new growth that would be accommodated by redevelopment. The analysis done for this study suggested that since 2000 just under one out of every 10 new homes built during that period was built on land that the buildable land inventory classified as developed; the other nine were built on land classified as vacant. But even if one accepts that approximation as accurate, what will happen in the future is still open for discussion. Will that rate drop because, for example, the demand for redevelopment for student housing will attenuate? Or will it increases because of market conditions (e.g., aging of the population; increase fuel prices) and policy conditions (e.g., limited additions of buildable land to the UGB)?

  The City has two committees addressing redevelopment (and infill): the Infill Compatibility Standards and the Opportunity Siting committees. The work of these committees will be considered as part of the Envision Eugene process and will help to inform community values and potential policy changes.

- **How will recent trends in student housing affect housing need throughout Eugene?** Some members of the CAC noted the recent trend around the University of Oregon to develop multiplex buildings where each dwelling unit has four or more bedrooms. The high value of these units has led to the redevelopment (i.e., demolition) of single-family dwellings, and to increases in parking problems in some cases. Though this situation is an issue for some

specific neighborhoods, the overall effect on the need for land inside the UGB is relatively small. In other words, while this issue may be one that the City wants to address, doing so is not required to comply with HB 3337.

- **How should the analysis address the inherent uncertainty of 20-year forecasts?** Estimating housing need for the 20-year planning period requires making assumptions about key variables that are uncertain: for example, changes in population, tenure percentages, income, housing price, housing mix, housing vacancy, household size, percent of population living in group quarters, and other demographic characteristics.

  The more disaggregated and detailed the forecast, the greater are the chances that the forecast will be wrong. For example, one's probability of predicting which *league* will win the World Series is around 50%; the probability of predicting which *team* will win the World Series is much lower (one in 30 or about 3.3%). Similarly, analysts are likely to make better predictions of the total amount of housing that will be built in Eugene than they are of the amount of housing, by type that will be built in different subareas of Eugene.

  For example, one issue raised by the CAC was the potential for changes in household size over the 20 year period. Over the last 20 years, household size has decreased steadily. There are demographic changes that suggest household size will continue to decrease, such as growth of the share of people over 60 years old, who typically have smaller households than younger people. There are other trends that suggest that household size will increase, such as growth in Hispanic households, which typically have larger than average household size, or growth in student housing with more than four bedrooms.

Employment

- **Eugene does not have a statement of economic development objectives as required by OAR 660-009-0025.** One of the steps in assessing a city's employment land supply is to clearly articulate the city's economic development objectives. OAR 660-009 encourages cities to develop economic development objectives through a public process, such as a visioning process. Eugene does not have an existing economic development policy document or plan that articulates the City's economic development objectives. The economic opportunities analysis presented in Appendix B does not comply with the requirements of Goal 9 as it presently stands. Through the Envision Eugene process, the City should develop

- **Does Eugene have the "right" land supply to accommodate employment growth?** The characteristics of Eugene's existing vacant commercial and industrial sites larger than 5 acres may not be satisfactory for attracting or growing businesses. Key issues include: lack of large sites, wetlands, lack of sites with proximity to I-5, and the grouping of sites along Hwy 99 north. The process required by Goal 9 and OAR 660-009 is to adopt local economic development objectives which then are used to identify target industries. The characteristics of sites needed by target industries is then compared to the land inventory to make a determination of the sufficiency of suitable sites. The employment land needs estimates in this report does not address site sufficiency, and as a result do not fully comply with Goal 9.
- **Does Eugene want to attract large employers that require large sites?** The lack of clear economic development objectives makes this question hard to answer. Goal 9 allows cities to be "aspirational" in local economic development plans. A city can adopt policies to attempt to attract specific types of firms, including types of firms that have not historically located in the city. Many cities aspire to attract large employers that require large sites (e.g., sites larger than 50 acres). Goal 9 allows a city to increase the amount of their buildable lands for employment beyond what might be calculated to strictly match forecasted employment *if* it demonstrates that it lacks certain need site types. Such an action, though allowed, is optional: a city must decide that it wants to have the additional site types so as to have a chance of attracting such industries. Such decisions are typically found in a city's economic development plan or plan element. But since Eugene does not have clearly articulated statement of economic development objectives (as required by OAR 660-009-0025), particularly objectives pertaining to sites, this step will require direction from the City Council about whether the City should assume any need for large sites
- **How much new employment will locate on non-employment land or on land that is already developed?** Not all new employment will require vacant employment land. There are four typical circumstances under which new employment does not require additional employment land; new employment may be accommodated (1) on land that is not designated primarily for

employment uses: e.g., home occupations that are located in residential plan designations; (2) in existing built space (e.g., adding a new cubicle to an existing office, or by extending the hours of operation); (3) in a new building on land that was not classified as vacant and buildable (e.g., building a restaurant in a large parking lot of a retail store); and (4) on developed land that gets redeveloped at a higher density.

A question that may need to be considered in Envision Eugene is how much of Eugene's forecasted new employment will not require land classified as vacant. In the Envision Eugene process, the City may model different assumptions about the amount of employment that can be accommodated in existing developed areas. In the end, however, the assumptions about the amount of employment that will be accommodated on land not classified as vacant (which is primary developed land, so such accommodation would be classified primarily as redevelopment) are policy choices that require direction from Eugene's decision makers.

Mixed-use lands

- **How does the City want to proceed with mixed-use lands?** Mixed-use (primarily residential and commercial) is a key city strategy that is embedded in the Metro Plan, TransPlan and other policy documents. Moreover, there are different "flavors" of mixed use: nodal development, mixed-use plan designations, housing development in commercial plan designations, and employment uses in residential plan designations. Success of dense mixed use development in these types of mixed use areas depends on a range of factors—and the strength of market demand for mixed development types. Additional opportunities exist for new mixed use centers, for housing in commercial areas, and for housing downtown.

Determination of sufficiency of lands with the UGB to accommodate 20-year land needs

- **What land efficiency measures should Eugene consider?** The City will be required to adopt some suite of measures to increase the capacity of lands within the UGB. Staff have already identified potential strategies as part of Envision Eugene and are in the process of evaluating the impact of those strategies. The key issue here is that the strategies must demonstrate that they will yield the stated land efficiencies. For housing, if needed density is greater

than actual (observed) density, the burden of proof is articulated in ORS 197.296(7):

> "… the local government … shall adopt measures that demonstrably increase the likelihood that residential development will occur at the housing types and density and at the mix of housing types required to meet housing needs over the next 20 years.

For example, if the City wants more redevelopment, or development of housing at higher densities, it may have to take policy steps to ensure that it will happen and where it should happen.

CONCLUSION

The ECLA process provides the technical analysis necessary to meet Eugene's obligations for the residential land determination under HB 3337. It does not, however, address all of the technical and policy work required to justify establishment of a separate UGB for Eugene, nor does it make a final determination about land sufficiency within the Eugene portion of the Eugene-Springfield Metropolitan UGB.

The baseline analysis presented in this report suggests that the City has a deficit of residential and commercial lands. That determination triggers a number of statewide planning requirements—particularly the requirement to review and adopt land use efficiency measures to reduce the size of a UGB expansion.

Moreover, the ECLA process was a technical process that, at Council's direction, did not address policy issues. Key policy issues such as identification of economic development objectives, adopting a needed housing density and mix, and articulating redevelopment and other land efficiency strategies must be addressed to make the final UGB determination.

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April 14, 2010

TO: **Eugene City Council**
CC: **Jason Dedrick**
FROM: **Terry Moore, Beth Goodman, and Bob Parker**
SUBJECT: **ECLA BASELINE ASSUMPTIONS**

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1 BACKGROUND

ECONorthwest is conducting the Eugene Comprehensive Lands Assessment (ECLA). Though there are many reasons for conducting such an analysis, the main one directing the content and timing of the analysis is Oregon House Bill 3337, which requires Eugene to establish its own Urban Growth Boundary (UGB) separate from the joint metropolitan UGB that Springfield and Eugene has shared for about 25 years. The full scope of work for ECLA is described elsewhere. It includes creating many products to comply with state requirements for LCDC Goals 9, 10, and 14: a Buildable Lands Inventory (BLI), an Economic Opportunity Analysis (EOA), and a Housing Needs Analysis (HNA).

Those interim products (and others) have resulted in a comparison of estimates of the need / demand for buildable land (to accommodate employment and residential growth) to the estimates of the amount of buildable land for the City of Eugene. That comparison of land need to land supply is the basis for a determination about whether land inside the Eugene portion of the existing metropolitan urban growth boundary is sufficient to accommodate Eugene's expected growth. That determination is where ECLA will end and Envision Eugene begins. The discussion of how Eugene should develop in the future will occur during the Envision Eugene project, which will model possible future development patterns based on changes in market dynamics and/or changes in development policies. Envision Eugene will focus on discussions about land use efficiency measures (e.g., increasing densities or increasing redevelopment), economic development policies, and other land use issues.

House Bill 3337 requires that Eugene establish a UGB and "demonstrate, as required by ORS 197.296, that its comprehensive plan provides sufficient buildable lands within an urban growth boundary established pursuant to statewide planning goals to

accommodate estimated *housing* needs for 20 years."[1] The scope of work for ECLA provides further direction. First, the Eugene City Council expanded the analysis to look not just at *residential* land (housing needs), but at *employment* land as well. Second, the scope is about collecting data and making extrapolations of land need based on existing policy and on market conditions and trends; it is not about researching, recommending, or adopting policies that could change those trends.

That last point led to a scope of work for 2008-2009 that is only part of a full UGB evaluation. It makes the analysis sequential rather than simultaneous. It does not work back and forth between estimates of land need, new policies that might change land need (e.g., policies to increase density), and new estimates of land need. Rather, it aims at making a determination of whether recent trends in growth and the type of land development that accommodates that growth (or divergences from those trends based on reasonable expectations about changes in market conditions) would result, over 20 years, in an amount of buildable land consumption that is equal to or less than the amount of buildable land estimated to be in the existing UGB now.

If so, then the City can use that determination to meet the requirements of HB 3337. If not, the City will probably need to do additional work to either (1) identify land-use efficiency measures to accommodate expected growth, (2) expand the UGB, or (3) both. The discussion of land-use efficiency measures or UGB expansion is beyond the scope of this project and beyond 2009. The scope of this project is limited to the collection and assessment of existing data to (1) estimate the existing supply of buildable land inside the Eugene portion of the current UGB, and (2) forecast the need for buildable land based on an extrapolation of recent market trends in the context of existing City policy (or reasonably expected changes in those market trends in the context of existing policy).

If the analysis in this study demonstrates that the City is unlikely have sufficient land within the UGB, that does *not* mean that the City must expand its UGB. Rather, it means that the City must take another step to make that determination: it must identify, evaluate, and discuss policies it could adopt to reduce the land deficiency. The City's ultimate determination of whether the UGB needs to be expanded must be done in the context of policies that it will adopt that can reasonably be assumed to reduce the need for that expansion (these policies are referred to collectively as "land –use efficiency measures"). Evaluation of efficiency measures, if required, will occur in 2010 and beyond.

The written products for this project will ultimately comprise dozens of analyses, tables, and maps. Making sense of them as an integrated analysis is difficult enough for people involved in the analysis, and more difficult still for community members who

[1] House Bill 3337 was codified in ORS 197.304. Emphasis added.

want to understand the implications for City land-use policy at a general level. With that point in mind, ECONorthwest proposed in its work plan that the technical information be consolidated and represented in land-use variations. The most important land-use variation, and the one that the staff technical work and CAC review has focused on, is the one related to recent trends and current policies in land use consumption (referred to as *the baseline* variation). Where there is uncertainty or reasonable differences of opinions about some of the assumptions that compose the baseline variation, then the intent is to run some variations on this scenario to test how the need / supply comparison is affected. Those variations are described in a separate memorandum.

The remainder of this memorandum discusses baseline assumptions in the land needs analysis. The framework and analysis that describes the rationale for the information summarized below is in previous memoranda that ECONorthwest presented to the CAC and will be incorporated into the final products for ECLA.

We organize and discuss the baseline assumptions in three categories: those that relate to (1) employment land (commercial and industrial), (2) residential land, and (3) public and semi-public land. For each of the key assumptions we provide some introductory text to explain what the assumption is and how it fits into the needs analysis, and then summarize information under four headings:

- Potential range of assumption: What is a reasonable, defensible range, and on what basis is that claim made?
- CAC and TAC discussion: What did the ECLA Community Advisory Committee and Technical Advisory Committee have to say about this assumption?
- Current technical recommendation for baseline assumption: Given the previous two points, what is this memorandum recommending as the baseline assumption?
- Data source: More information about the basis for the recommendation.

2 BASELINE ASSUMPTIONS

Table 1 lists the assumptions that are needed to model land need for the Eugene UGB over the 2011-2031 period; underlining denotes what ECONorthwest believes to be a key assumption. Key assumptions are those that (1) potentially have a large impact on land needs, and (2) are most likely to be affected by City policies. Subsequent sections of this memorandum provide information about baseline assumptions as they relate to historical data.

Table 1. Baseline assumptions for modeling land need

Employment land needs	Residential land needs	Public and Semi-Public Land Needs
Employment growth	Population growth	Park Land
Share of employment by category	Population in group quarters	Neighborhood Parks
Industrial	Persons in household	Community Parks
Commercial	Residential vacancy rate	Natural Areas
Retail	Housing mix	Other Parks
Government	Housing density	Schools
New employment in non-employment PD	Residential development in commercial PD	4J School District
New employment in existing built space	Net to Gross Factor	Bethel School District
Commercial Redevelopment	Residential redevelopment	Public Operations and Facilities
Employment Density		Semi-public uses
Net to Gross Factor		

2.1 EMPLOYMENT LAND NEED: BASELINE ASSUMPTIONS

The analysis of employment land need is driven by an analysis of employment growth, Eugene's competitive advantages, the types of firms that may locate in Eugene, and the site needs of the firms that may locate in Eugene. The employment land need must meet the State requirements of Goal 9 and OAR 600-009. The framework and full analysis of employment land need that meets State requirements will be available in the Economic Opportunities Analysis, which will be part of the final report. This section discusses the baseline assumptions necessary for determining the amount of land needed for employment over the 20-year planning period.

Employment growth

Employment growth is the amount of growth in jobs reasonably expected in Eugene over the 2011 to 2031 period. We exclude government employment growth because government land need is accommodated through public and semi-public land needs, evaluated separately. Changes in the forecast of employment growth directly result in changes in need for employment land.

Forecasting employment requires two fundamental assumptions: (1) an estimate of current employment to provide the basis for forecasting future employment and (2) a rate of future employment growth.

- **Employment base.** Eugene had approximately 125,000 employees in 2006.[2] Detailed information about changes in employment in Eugene is not readily available for 2008 or 2009. In the absence of information about the affects of the recession on Eugene, we developed an employment base for Eugene in 2011 based on assumptions, including: (1) Eugene's employment base shrank by nearly 7,200 jobs as a result of the movement of employees to the new RiverBend Hospital, the closure of Hynix, and as a result of job layoffs in the current recession and (2) Eugene's job market will not grow during 2009 to 2011.[3] Based on these assumptions, the 2011 employment base will be 116,959 employees located within the Eugene UGB.
- **Forecast rate.** The historical long-term employment growth rate for Eugene is not easily available because the State does not publish employment data by city. It is reasonable to assume that Eugene's employment grew with employment in Lane County because Eugene's employment accounted for 60% of employment in Lane County in 2006.

  Employment in Lane County grew at 1.7% annually between 1980 and 2007, with an increase of more than 55,300 jobs. Employment growth in the County was slowest during the 1980's (at 1.5% average annual growth) and fastest during the 1990's (with 2.1% average annual growth).

[2] The employment forecast is based on the best available data, which is collected by the Oregon Employment Department and modified by LCOG to correct for errors in the data about exactly where in Lane County particular employers were located. The most recently available version of this data is for 2006.

[3] We assumed that employment in Eugene decreased proportionate to employment decreases in Lane County

There is no single "right" way to forecast employment growth. There are, however, two methods for forecasting employment growth that, independent of their technical merits, are legally sanctioned as "safe harbors"[4]: (1) assume that employment will grow at the same rate as population (OAR 660-024-0040(8)((a)(ii)), or (2) assume that employment will grow at the same rate as the Employment Department's forecast for Lane County.

- Potential range of assumption: Eugene's employment growth rate could be expected to be similar to past County growth rates, averaging about 1.7% average annual growth and ranging between 1.5 and 2.1% average annual growth. Applying the safe harbors for employment growth results in lower employment growth rate assumptions. Assuming that employment will grow at the same rate as population (a 0.9% annual growth) results in addition of about 20,000 jobs.[5] Assuming that employment in Eugene will grow at the same rate as the one used in the Employment Department's forecast for Lane County (a 1.4% annual growth rate) results in the addition of about 34,500 jobs, not including government jobs, which are accounted for in public and semi-public land needs.
- CAC and TAC discussion: Several CAC and TAC members said the assumption that Eugene's employment will grow at the rate forecasted for Lane County (1.4% annual growth) is reasonable, and probably the more reasonable of the two growth rates. Eugene is the central city and employment center of the region: it is reasonable to expect employment to grow faster than population. On the other hand, a difference in growth rates suggests greater commuting to Eugene from outlying cities (e.g., Veneta).
- Current technical recommendation for baseline assumption: We recommend assuming 1.4% annual employment growth, based on: (1) the assumption that Eugene is the regional economic center of Lane County and likely to have the greatest employment growth, and (2) average employment growth in Lane County over the 1980 to 2007 was 1.7% average annual growth.
- Data source: The employment base is a point in time estimate for 2006 based on: Quarterly Census of Employment and Workforce from the OR Employment Department and Total Employment in Lane County from the US Bureau of Economic Analysis.

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[4] Safe harbors are optional assumptions that satisfy the requirements of Goals 9, 10, or 14. Use of a safe harbor as described in the Oregon Administrative Rules will satisfy the requirement for which the safe harbor is prescribed. A safe harbor is not the only way or necessarily the preferred way to comply with a requirement but correct use of a safe harbor results in an assumption that the DLCD will accept.

[5] This assumption is based on the population forecast for the Eugene UGB presented in the "Lane County Rural Comprehensive Plan General Plan Policies 1984", updated June 2009. Population in the Eugene UGB is forecast to grow at about 0.88% annually.

Distribution of employment by land-use type

The forecast of employment growth can be divided into broad categories of land use based on the characteristics of land needed: commercial office, commercial retail, industrial, and government. In 2006, the share of employment in each of these categories was: 54.3% commercial, 13.1% retail, 18.2% industrial, and 14.4% government.[6]

Note that the effect of this assumption is diminished to some degree by the fact that the *amount* of employment does not change—the *composition* changes. Thus, the same number of employees will need built space to work in, which will need land be constructed. The difference is that the density of employment growth will be different for some types of development. But the differences in density among commercial office, retail, and government are relatively small, so shifting among those has little impact on land need. The bigger effect comes from shifts between those categories and industrial, which has lower density.

- Potential range of assumption: There is no "correct" way to forecast the future composition of Eugene's economy. The greatest uncertainty is in estimating the amount of industrial employment will Eugene have in 20 years. Industrial employment, especially manufacturing, declined from 36% of Lane County's employment in 1980 to 26% of the County's employment in 2007, consistent with state and national trends. Possible approaches to forecasting the future composition of Eugene's economy are:
    - Assume the future composition of Eugene's economy will look like the present and use the existing distribution of employment by land-use type;
    - Assume that employment in non-industrial sectors will grow more than employment in industrial based on County, State, and national recent trends. An example of the shift in the mix: 55% commercial, 15% retail, 15% industrial, and 15% government; or
    - Assume that the amount of industrial employment will be similar to other major cities or counties in the Willamette Valley. Industrial employment accounted for the following share of employment: 19% in Salem and 24% in Portland.[7]

[6] Growth in government employment is accounted for through the public and semi-public land needs process, rather than through the employment land needs analysis. This assumption accounts for the closing of Hynix, which reduced the share of industrial employment in Eugene.

[7] Mix of employment for Salem and Portland is based on information from Oregon Prospector. Accessed at: http://oregonprospector.com/

  - Use the mix of employment forecast in the Employment Department's forecast for Lane County: 46% commercial, 13% retail, 23% industrial, and 18% government.

- CAC discussion: Some CAC members said that the current mix of employment seems more likely to continue into the future than the mix in the Employment Department's forecast for Lane County.
- Current technical recommendation for baseline assumption: Given the long-term state and national trends of decreasing share of employment in industrial sectors, especially manufacturing, it seems unlikely that manufacturing employment in Eugene will increase substantially. We recommend using the current mix of employment (54.3% commercial, 13.1% retail, 18.2% industrial, and 14.4% government), given the uncertainty of growth in manufacturing.
- Data source: The employment base is a point in time estimate for 2006 based on Quarterly Census of Employment and Workforce from the OR Employment Department and Total Employment in Lane County from the US Bureau of Economic Analysis.

New employment accommodated on land not designated for employment

Some employment is currently accommodated on land that is located in a residential or other non-employment plan designation. In 2006, about 15% of covered employment[8] was located in residential and other non-employment designations. This includes businesses located in non-employment plan designations (such as a corner store in a neighborhood) and people working from home. This estimate excludes workers that are not covered by unemployment insurance, such as sole proprietors. Although these workers may be more likely than covered employees to locate on land with non-employment designation, we do not have information about where non-covered workers are located. In the absence of this information, we assumed that covered and non-covered workers will locate on land in non-employment plan designations in the same proportions and that 15% of all employment will locate on land in non-employment plan designations.

- Potential range of assumption: There is little information available about the amount of employment accommodated on land not designated for employment in Eugene, beyond the data reported above. In work for other Oregon cities, ECO has generally found and assumed that between 10% and

[8] *Covered* employment is employment that the state tracks because it is covered by unemployment insurance and reported. Covered employment information is available at the city-level. *Total* employment, which includes all employment, is tracked by the U.S. Bureau of Labor Statistics and is not available at the city-level. Comparison of covered and total employment in Lane County showed that covered employment was 75% of total employment in the County in 2006.Covered employment excludes sole proprietors and other workers not covered by unemployment insurance.

20% of employment is accommodated in residential or other non-employment plan designations.

- CAC and TAC discussion: Some CAC and TAC members suggested that the share of employment accommodated on land not designated for employment uses may increase in the future, based on trends in working from home.
- Current technical recommendation for baseline assumption: We recommend assuming that 15% of non-industrial employment will accommodated on land not designated for employment. The basis for this recommendation is that the 2006 covered employment data is the best available and we have little data as a basis for assumptions about changes in the amount of employment that may locate in non-employment designations in the future.
- Data source: The estimate of 15% of covered employment on land not designated for employment is based on employment data from 2006. The data source for the employment base was Quarterly Census of Employment and Workforce from the OR Employment Department, overlaid with the LCOG GIS data showing the City of Eugene Plan Designations.

New employment accommodated in existing built space

As firms add employees they may fit many of them into existing office spaces. That would occur if current vacancy rates were much higher than average (because future employment growth could then be partially accommodated in existing space until and natural, frictional vacancy rate was reached). It could also occur in occupied buildings through filling vacant cubicles or offices or increasing density of use existing workspaces (e.g., by adding new cubicles). There is no study that quantifies how much employment is commonly accommodated in existing built space over a 20-year period in a city.

- Potential range of assumption: There is no data that document the amount of employment locate in existing built space. Clearly some employment is accommodated through this type of intensification of use but, equally clearly, not all employment can be accommodated this way. ECO typically assumes that 5% to 10% of employment will be accommodated in existing built space. Given the current high unemployment rate, it is reasonable to assume that Eugene has greater capacity to accommodate employment growth in existing built space. A range of between 5% to 20% of new employment locating in existing built space is a reasonable assumption.

  Obviously, such an assumption cannot apply indefinitely, so it presumes that (1) the use of existing space is not so intense that it cannot be economically increased, and (2) economic conditions, competitiveness, and standard business practices for reducing cost make a 5% to 20% increase in space utilization reasonable.

- CAC and TAC discussion: CAC members' opinions were divided on this assumption, with CAC members suggesting increasing and decreasing it.
- Current technical recommendation for baseline assumption: We recommend assuming that 10% of new employment will locate in existing built space.
- Data source: ECONorthwest has typically assumed that about 10% of employment would locate in existing built space for similar studies in other cities. The rationale for this assumption is: (1) in the short-term, commercial vacancy rates are likely to be higher than normal (because of the current recession) and (2) existing firms have a large incentive to accommodate new employees in their existing offices because of the cost of moving and leasing additional office space. Given the current high rate of unemployment, it may be reasonable to assume that 20% of employment growth will be accommodated in existing built space.

New employment accommodated through redevelopment

Goal 9 strongly encourages cities to develop policies to encourage redevelopment of commercial and industrial land, especially brownfields. Redevelopment is any development that happens on land that has been classified as developed (i.e., not vacant). This definition is consistent with the definition of developed land in OAR 660-009.

For the purposes of this study, we define redevelopment as development that (1) occurs on land with existing development, *and* (2) results in a net increase in employment density. The second condition means that the replacement of a building used for employment by a new building with similar employment density would not be counted as redevelopment. This definition includes infill on partially vacant land.

We can see that redevelopment has occurred in Eugene over the last 20-years. Retail redevelopment is especially common, such as the redevelopment that has occurred along Coburg Road, like Oakway Center. We can reasonably assume that some employment growth will be accommodated through redevelopment of existing commercial and industrial land over the next 20-years.

Determining how much redevelopment has actually occurred is difficult because data about redevelopment (or indicators of redevelopment) are not maintained. While the City collects data for industrial and commercial building permits, there is no way to determine which of these permits was issued for redevelopment of a site, short of sorting through the permits one-by-one. We could estimate redevelopment using assumptions about land value and potential to redevelopment, this methodology provides a gross indicator of redevelopment potential but little indication of how much redevelopment is *likely* to occur over the planning period.

As a result, we do not have a factual basis to estimate the amount of employment growth that may be accommodated through redevelopment. In previous studies conducted by ECONorthwest and other organizations, redevelopment has been addressed by assuming that a certain percentage of employment growth will be addressed through redevelopment, generally from 5% to 20% of new residential development.[9]

- Potential range of assumption: We found no studies or data that attempt to estimate the amount of commercial and industrial infill and redevelopment that occurred in Eugene over the past decade. It is clear, however, that infill and redevelopment occurred, especially along Coburg Road. A 2002 study in the Portland Metro area suggested that about 50% of commercial and 35% of industrial of employment land would be accommodated through redevelopment over the 2002-2022 period.[10]
- CAC and TAC discussion: CAC and TAC did not discuss this assumption in great enough depth to have suggestions for different assumptions from more than one committee member. One TAC member suggested that the most appropriate places for redevelopment are in mixed use centers and downtown.
- Current technical recommendation for baseline assumption: Our preliminary recommendation is to assume redevelopment of 10% of forecast industrial employment, 15% of commercial employment, and 35% of retail employment.
- Data source: No data about commercial and industrial redevelopment is currently available.

Employment density

Employment density is the density of employment (measured in employees per acre) locating in commercial and industrial plan designations. Forecasting employment land need based on forecasts of employment growth requires a conversion, either explicit or implicit, of employment growth (number of new employees) to land need based on assumptions about employment density. This can be accomplished through use of assumptions about the number of employees per acre (EPA). In 2006, Eugene's overall employment density was 22 employees per acre. Employment densities in Eugene varied by use and mixture of uses, as follows:

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[9] ECONorthwest used this method in studies for the following cities: Ashland, McMinnville, The Dalles, Pendleton, Ontario, and Sandy. Metro uses a "refill"rate to account for employment accommodated through redevelopment. In Metro's 2002 Urban Growth Report, they assumed a refill rate of about 26% for commercial and industrial lands.

[10] Metro's "2002-2022 Urban Growth Report: an Employment Land Needs Analysis," December 2002. Accessible from http://library.oregonmetro.gov/files/ugr-employment.pdf

- **Industrial** densities ranged from about 5 employees per gross acre (EPA) in heavy industrial areas to nearly 20 EPA in light or campus industrial.
- **Commercial** densities varied from 30 EPA in mixed retail and office sites to 93 EPA in downtown.
- **Retail** densities varied from about 20 EPA to about 37 EPA at Oakway Center.

Existing employment densities are documented more completely in the memorandum to the CAC "Preliminary Estimate of Employment Land Need in Eugene During the 2010-2030 Period" (dated February 5, 2009).

- Potential range of assumption: The potential ranges of assumptions are described above.
- CAC and TAC discussion: CAC and TAC did not have many comments or questions about the employment density data presented.
- Current technical recommendation for baseline assumption: We recommend making the following assumptions about employment density, based on the average densities in Eugene: 13 EPA for industrial, 68 EPA for commercial, and 23 EPA for retail.
- Data source: Employment densities are based on employment in 2006 from the Quarterly Census of Employment and Workforce from the OR Employment Department, City of Eugene Plan Designations, and LCOG GIS data about land in employment plan designations.

Converting net acres to gross acres

The data about employment density presented above is in *net* acres, which does not include land for public right-of-way. Future land need for employment should include land in tax lots needed for employment plus land needed for public right-of-way. One way to estimate the amount of land needed for employment including public right-of-way is to convert from *net* to *gross* acres based on assumptions about the amount of land needed for right-of-way.[11] A net to gross conversion is expressed as a percentage of gross acres that are in public right-of-way. For example, a net to gross conversion factor of 15% means that 15% of gross acres are in public rights-of-way.

[11] OAR 660-024-0010(6) uses the following definition of net buildable acre. "Net Buildable Acre" consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads. While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads. Areas used for rights-of-way are considered unbuildable.

- Potential range of assumption: We examined net to gross ratios for existing commercial and industrial development on selected sites within Eugene. We found the following net to gross factors:
    - Commercial sites had a net to gross factor ranging from: about 17% in community retail centers, 31% in Downtown, and 34% in the area directly south of Downtown Eugene.
    - Industrial sites had a net to gross factor averaging about 14%, with no substantial different between light and heavy industry.

  Work with other cities has shown similar net to gross factors. ECO typically assumes a net to gross factor of 15% to 20% for employment lands.
- CAC and TAC discussion: CAC and TAC did not provide comments on the net-to-gross factor.
- Current technical recommendation for baseline assumption: We recommend assuming a 20% net-to-gross factor for commercial land need, based on the assumption that future commercial employment will be in areas more like community retail centers and less like Downtown. These areas will need less land for public rights-of-way.

  We recommend assuming a 15% net-to-gross factor for industrial land need, which is consistent with observed need for public rights-of-way in industrial areas in Eugene.
- Data source: The net-to-gross factors are based on data from the 2006 Quarterly Census of Employment and Workforce from the OR Employment Department and City of Eugene Plan Designations. This assumption is generally consistent with the assumptions in the MetroPlan about land needed for public rights-of-way.

2.2 RESIDENTIAL LAND NEED: BASELINE ASSUMPTIONS

The analysis of residential land need is driven by an analysis of housing need. The housing needs analysis must meet the State requirements of Goal 10, ORS 197.296, and OAR 600-008. The framework and full analysis of employment land need that meets State requirements will be available in the Housing Needs Analysis, which will be part of the final report. This section discusses the baseline assumptions necessary for determining the amount of land needed for housing over the 20-year planning period.

The housing needs analysis presents information about residential development by housing types. There are multiple ways that housing types could be grouped. For example, housing types could be grouped by: (1) structure type (e.g., single-family detached, apartments, etc.), (2) tenure (e.g., distinguishing unit type by owner or renter units), (3) housing affordability (e.g., units affordable at given income levels) or (4)

some combination of these categories. There are probably other ways to group housing types.

For the purposes of this study, we grouped housing types based on: (1) whether the structure is stand-alone or attached to another structure and (2) the number of dwelling units in each structure. The housing types used in this analysis are:

- **Single-family detached** includes single-family detached units, secondary dwelling units, and manufactured homes on lots and in mobile home parks.
- **Single-family attached** includes row houses, townhouses, and condominiums.
- **Two to four units** includes structures with two to four dwelling units, such as duplexes, tri-plexes, and quad-plexes.
- **Five or more units** includes structures with five or more dwelling units per structure.

The reason for choosing these categories of housing type for the analysis is that the City collects data about residential development based on these structure types.

Using these structure types to forecast need for new housing does not provide information about housing issues that elected officials may want to consider. Two examples of housing types that are not shown in this categorization of housing types are:

- **Larger than average student households.** Recent development trends in neighborhoods near the University have included student housing that have higher than average household size. These structures may have three or four dwelling units per structure but each dwelling unit may have four or more bedrooms. These housing types affect the surrounding neighborhood differently than units with smaller household sizes, such as by potentially generating higher demand for parking spaces than units with fewer persons per unit.
- **Affordable, small single-family units.** The housing needs analysis discusses the need for affordable housing, both for homeownership and rental housing. Small single-family units in established neighborhoods are one example of affordable ownership units. These units may be located in established neighborhoods where redevelopment is occurring, decreasing the availability of these housing types.

These issues are discussed in the housing needs analysis, where data is available about these housing types.

Population growth

A 20-year population forecast (in this instance, 2011 to 2031) is the foundation for estimating needed new dwelling units. If Lane County did not have an adopted population forecast, we would need to consider a reasonable range of population growth. Lane County, however, adopted a new coordinated population forecast that covers the 2010 to 2035 period. The City has taken action on a Metro Plan Amendment to formally adopt this forecast for use in all future planning efforts and is awaiting similar action by Springfield and Lane County. The forecast projects that population inside the Eugene UGB will grow from 179,338 people in 2011 to 213,238 people in 2031, an increase of 33,900 people between 2011 and 2031.[12]

- Potential range of assumption: The adopted Lane County population forecast is the only assumption about population growth currently under consideration in ECLA.
- CAC and TAC discussion: CAC and TAC were not asked for different assumptions about population growth because this is a policy decision based on the Lane County coordinated population forecast, which the City Council has adopted as a Metro Plan Amendment.
- Current technical recommendation for baseline assumption: We recommend using the Lane County population forecast for Eugene.
- Data source: Lane County adopted coordinated population forecast, *Lane County Rural Comprehensive Plan*, updated June 2009.

Population in group quarters

Persons in group quarters do not consume standard housing units: thus, any forecast of new people in group quarters is typically backed out of the population forecast for the purpose of estimating housing demand. Group quarters can have a big influence on housing in cities with colleges (dorms), prisons, or a large elderly population (nursing homes). In general, any new requirements for these housing types will be met by institutions (colleges, government agencies, health-care corporations) operating outside what is typically defined as the housing market. Group quarters, however, require land and are typically built at densities that are comparable to multiple-family dwellings.

The U.S. Census tracks the number of people in group quarters. The share of Eugene's population living in group quarters was 5.5% in 1990, 4.4% in 2000, and 5.3% in 2007.

One of the factors that will affect the amount of Eugene's population housed in group quarters is enrollment growth at the University of Oregon and the University's

[12] The population forecast is from Table 1.1 in the revised *Lane County Rural Comprehensive Plan General Plan Policies 1984*, updated June 2009.

provision of dormitory space. The University projects growth of about 3,700 students over the 2009 to 2019 period (from 20,300 students in 2009)[13] and plans to build an additional approximately 1,500 bed spaces over the 2007 to 2017 period.[14]

- Potential range of assumption: The U.S. Census' range of people in group households (between 4.4% to 5.5% of population) is a reasonable range for this assumption. There are two main factors that may affect the share of population in group quarters: (1) the aging population and (2) growth in the University of Oregon's student body.
    - The aging of the population may result in an increase in share of seniors living in group housing, especially nursing homes. Housing types for the aging population range from congregate facilities (e.g., assisted living) to age restricted active adult retirement communities, which have a range of single-family and multifamily housing types. The age and health of seniors impact the their hosing choice. Younger, independent seniors have a preference for aging in place or choose housing that allows them greater independence, such as age restricted communities. As seniors age or their health deteriorates, housing choices may include assisted living facilities and nursing homes. It is difficult to estimate how much the aging of the population and greater housing choice for seniors will affect the share of population in group quarters.
    - Growth in the University of Oregon's student population may result in an increase in the share of population in group quarters. The affect of growth in the student body at the University on the share of Eugene's population in group quarters will depend on actual growth in the student body and whether the University builds as much student housing as has been proposed. If the University builds as much housing as proposed, it may result in an increase in population in group quarters, which would result in a decrease in need for new housing units.
- CAC and TAC discussion: Some CAC members have expressed concern that the assumption account for growth in the student population at the University of Oregon and the University's plans for building additional dorm rooms.

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[13] University of Oregon Draft Academic Plan, 1/12/09. Accessed on 2/9/2009 from: http://provost.uoregon.edu/files/provost/uploads/Academic_plan_1_12_09.pdf

[14] University of Oregon memorandum, Strategic Housing Plan Consultant's Report, March 26, 2008. Accessed on 2/9/2009 from: http://uplan.uoregon.edu/projects/Project%20Sums%20for%20Web/HousingPlan/UO%20HSP%20FINAL%20MAIN.pdf

- Current technical recommendation for baseline assumption: We recommend assuming that 5.3% of Eugene's 2031 population (1,865 people) will live in group quarters.
- Data source: The assumption about population in group quarters is based on the share of Eugene's population in group quarters in 2007 according to the U.S. Census, American Community Survey, 2007. This assumption considers long-term trends in share of population in group quarters in 1990, 2000, and 2007, based on U.S. Census data in those years.

Persons per household

In 1990, traditional families (married couple, with one or more children at home) accounted for 25% of all households in Oregon. In 2007 that percentage had dropped to 20%. Consistent with that trend, the average household size has decreased over the past five decades and is likely to continue decreasing. The average household size in Oregon was 2.60 in 1980, 2.52 in 1990, and 2.51 in 2000 and 2.49 in 2007. One and two person households made up the majority of Oregon households in 1990. The direct impact of decreasing household size on housing demand is that smaller households means more households, which means a need for more housing units even if population were not growing.

Average household size in Eugene followed the same pattern as the State: household sizes have decreased. In 1990, the average household had 2.30 persons per household, dropping to 2.27 in 2000, and 2.25 persons per household in 2007. OAR 660-024 established a "safe harbor" assumption for average household size—which is the figure from the most recent Census.

- Potential range of assumption: We could assume that household sizes will change over the planning period or we could use the safe harbor and assume that household sizes will continue at 2.25 persons per household.

  The historical change in household size in Eugene over the last quarter-century is a relatively slow decrease: from 1980 to 2007 the average annual rate of decrease was on the order of 1/10th of 1% per year. If Eugene's household size continues to decrease, Eugene will need more dwelling units than the current forecast projects to accommodate Eugene's expected population growth.

  Trends in student housing suggest that Eugene's household size may increase slightly over the planning period. One type of student housing that has been built more frequently in Eugene are large units with five or more bedrooms and shared common space and kitchen facilities. These dwellings are most common in neighborhoods near the University and may have five or more students living in them. While it seems that the market for this type of housing is limited by student housing demand and student housing preferences,

continued growth in this type of housing could increase average household size slightly across the City. The result of increased household size would be a decrease in the number of new dwelling units needed to accommodate Eugene's expected population growth.

- CAC and TAC discussion: Some CAC members think that we should assume that household sizes will change in the future. CAC members have expressed concern at development of buildings with an increasing number of bedrooms in the same dwelling unit. This creates higher persons per household in the neighborhoods with this type of development, which creates other policy challenges for these neighborhoods (e.g., parking demand). Other CAC members identified this as a trend localized around the University, which would not significantly impact household size across the City. The housing needs analysis will discuss this trend.
- Current technical recommendation for baseline assumption: We recommend using the safe harbor assumption that household sizes will remain at 2.25 persons per household. Forecasting future household sizes requires considering a number of demographic and social shifts that are complex: continued aging of the population, changes in ethnicity, and changes in student housing preferences. The changes in household size from these factors may cancel each other out or may affect household size in specific areas of the City.
- Data source: The assumption about household size is based on a point in time estimate based on 2007 U.S. Census, American Community Survey, data.

Residential vacancies

Housing vacancy rates are cyclical. Low vacancy rates signal an excess of demand relative to supply, which brings new construction and, eventually, higher vacancy rates. Vacancy rates for rental and multiple family units are typically higher than those for owner-occupied and single-family dwelling units.

In 1990 the Census reported a vacancy rate for all housing of 3.6%, increasing to 5.4% in 2000, and 6.3% in 2007. While it may appear that Eugene's vacancy rate has increased over the 1990 to 2007, Eugene's vacancy rate has probably fluctuated throughout each year. The Census' vacancy rate data is accurate for the date of the Census (April 1) but the vacancy rate may change significantly throughout the year based on activities at the University of Oregon. For example, Eugene may have a higher vacancy rate in July, when most students have left town, and a lower vacancy rate in October, with the start of the University's school year.

Since state law and this project requires a 20-year forecast, and one should expect several housing cycles during that period, this project should be looking for an average vacancy rate (the "natural" rate of vacancy). OAR 660-024 established a "safe harbor"

assumption for average residential vacancies—which is the figure from the most recent Census.

- Potential range of assumption: Census data probably describes a reasonable range of vacancy rates: 3.5% to 6.5% vacancy. ECO has typically found vacancy rates of 2% to 9% in other cities, depending on the type of housing and local housing market conditions.
- CAC and TAC discussion: Several CAC members agreed the most reasonable vacancy rate assumption would be 5%. That is an average rate that ECO has used in other studies of this type.
- Current technical recommendation for baseline assumption: We recommend assuming that an average of 5% of new dwellings will be vacant, based on recent vacancy data and suggestions from the CAC.
- Data source: The assumption about vacancy rate is based on a point in time estimate for 2007 from the U.S. Census, American Community Survey.

Housing mix

Housing mix is the mixture of housing (structure) types (e.g., single-family detached or apartments) within a city. State law requires a determination of the future housing mix in the community and allows that determination to be based on different periods: (1) the mix of housing built in the past five years or since the most recent periodic review, whichever time period is greater, (2) a shorter time period if the data will provide more accurate and reliable information, or (3) a longer time period if the data will provide more accurate and reliable information (ORS 197.296). This memorandum presents housing mix data for two periods (1) housing mix over the 2001 to 2008 period and (2) housing mix over the 1990 to 2007 period.

Table 2 shows the housing mix for residential development over the 2001 to 2008 period. We selected this time period over the 2001 to 2008 period because it shows housing mix that occurred since the City's revised zoning ordinance went into effect in 2001. About 69% of housing developed was single-family detached (including manufactured homes), 10% was single-family attached, and the remaining 21% were structures with two or more units. The share of single-family housing varied from a high of 90% in 2003 to a low of 45% in 2007.

A caveat about the information presented in Table 2: the data about residential development is both complex and somewhat scant. Each development may have idiosyncrasies, such as factors that limit development density or footprint (such as a stream). Moreover, it is typical to see cycles in building: for example, a lot of single-family units get built so then a lot of multifamily follows. We think it is more appropriate to look at building trends broadly and on average over a several-year period (e.g., for the entire 2001 to 2008 period) than on a year-by-year basis.

Table 2. Percent of housing by structure type, 2001-2008, Eugene UGB

Year	Single-family detached	Single-family attached	Two to four units	Five or more units
2001	86%	2%	4%	8%
2002	85%	0%	4%	11%
2003	90%	1%	7%	1%
2004	67%	1%	4%	28%
2005	68%	4%	7%	21%
2006	52%	36%	6%	6%
2007	45%	26%	9%	19%
2008	54%	1%	5%	40%
Average	**69%**	**10%**	**6%**	**15%**
Total Units	**4,503**	**660**	**371**	**998**

Source: LCOG GIS data and City of Eugene Planning Department, 2008

Table 3 shows changes in the mix of Eugene's housing stock (all housing in the City) between 1990 and 2007, based on U.S. Census data. The share of single-family detached housing (including manufactured) was relatively stable over the seventeen-year period, accounting for about 61% of housing stock in Eugene.

Table 3. Housing stock by structure type, Eugene city limits, 1990, 2000, and 2007

	1990		2000		2007		New Units 1990-2007		
Structure type	Units	Percent	Units	Percent	Units	Percent	Units	Percent of total	Percent Increase
Single-family detached	28,768	60%	36,151	59%	41,923	61%	13,155	63%	46%
Single-family attached	3,264	7%	4,011	7%	4,828	7%	1,564	7%	48%
Two to four units	4,886	10%	5,877	10%	6,773	10%	1,887	9%	39%
Five or more units	11,073	23%	15,293	25%	15,371	22%	4,298	21%	39%
Total	**47,991**	**100%**	**61,332**	**100%**	**68,895**	**100%**	**20,904**	**100%**	**44%**

Source: U.S. Census 1990 and 2000, American Community Survey 2007

Several CAC members have expressed concerns about the categories of housing shown in Tables 2 and 3. Suggestions for changes to mix include: (1) combine some categories of structure type, such as apartments with 5 to 19 units and apartments with 20 or more units and (2) consider other structure types, such as student housing with more than four bedrooms and shared common areas or small affordable single-family dwellings. ECONorthwest addressed this first consideration and consolidated the housing types as presented in this memorandum. Data about the other structure types is not commonly available across the City. The housing needs analysis will discuss these housing types and present available data for these housing types.

- Potential range of assumption: The range of assumptions about future housing mix is broad. The range of assumptions could be as broad as the changes in mix shown in Table 2, with single-family detached housing varying from 45% to 64%. A more reasonable range of assumptions for the baseline analysis could be taken from the average mix over the 2001 to 2008 period or from the 2007 mix. The mixes are as follows:

Mix for housing built from 2001 to 2008	Mix of housing stock in 2007
Single-family detached: 69%	Single-family detached: 61%
Single-family attached: 10%	Single-family attached:7%
Two to four units: 6%	Two to four units: 10%
Five or more units: 15%	Five or more units: 22%

  The City Council could consider alternative housing mixes. State policy provides guidance for determining housing mix in the Portland Metro UGB and provides a safe harbor for determining housing mix.

  - OAR 660-007 requires that cities of 50,000 or more people in the Portland Metro UGB assume that 50% of new residential construction will be single-family detached housing types (including manufactured housing) and 50% multifamily housing types (including all housing attached housing where each dwelling unit is not on a separate lot). Although OAR 660-007 does not apply to Eugene (because the City is not in the Portland Metro UGB), this rule does illustrate the housing mix that cities in the Metro UGB are expected to achieve.

  - OAR 660-024-0040(f) provides an optional safe harbor for cities that are not subject to ORS 197.296 and have at least 25,000 residents. This safe harbor assumes that 50% of future housing will be in low density plan designations and that 50% will be in medium and high density plan designations. This safe harbor could be interpreted as resulting in a housing mix of roughly 50% single-family detached housing types and 50% multifamily housing types. Although this safe harbor does not apply to Eugene (because the City is subject to ORS 197.296), this rule does illustrate the housing mix that cities with 25,000 or more people are encouraged by the State to achieve.

- CAC and TAC discussion: Discussions with the CAC indicate that they favor assuming that the housing mix that Eugene will achieve over the planning period is the mix for Eugene's housing stock in 2007. CAC members are concerned that the housing mix achieved over the 2001 to 2008 period was anomalous, with development of more single-family detached housing than Eugene can reasonably expect over the next 20 years. CAC members generally

agreed that future housing mix will more closely resemble the mix of the City's housing stock.

- Current technical recommendation for baseline assumption: We recommend basing Eugene's forecasted housing mix on the mix of housing stock in 2007.
- Data source: The assumption about housing mix could be based on development trends over the 2001 to 2008 period, based on LCOG GIS data and City of Eugene Planning Department's building permit data. Alternatively, assumption about housing mix could be based on the housing mix for Eugene's housing stock, shown in point in time estimates for 1990, 2000, and 2007 from the U.S. Census.

Housing density

Housing density is the density of housing by structure type, expressed in dwelling units per net or gross acre.[15] Like housing mix, State law requires determination of housing density based on analysis of data and suggests using analysis of housing density developed over the past five years or since the most recent periodic review, whichever time period is greater, or for a shorter or longer time period.

The U.S. Census does not track residential development density. City staff recommends using housing density based on development between 2001 and 2008 (rather than 1999 to 2008) because changes to the City's zoning code went into effect in 2001 that affect housing development. Eugene City staff concluded that data prior to 1996 is not accurate and consistent enough for an analysis of longer-term housing densities.

City staff ground-truthed the density analysis results through review of aerial photos, review of RLID and GeoDart address files and a review of relevant permit data. Staff found that the density analysis did not account for phased development of multifamily housing (structures with more than two units) in Medium and High Density Plan Designations. Phased development often occurs over a number of years and may include developing multiple types of housing on the same tax lot. As a result, the density analysis did not account for pre-existing multifamily development on some tax lots, which resulted in an underestimate of multifamily housing Medium and High Density Plan Designations. Phased development over multiple years on one tax lot does not generally occur in Low Density Residential or with single-family housing.

Table 4 shows average net residential development by structure type for the 2001 to 2008 period. Table 4 shows that 4,727 tax lots had residential development during the

[15] OAR 660-024-0010(6) uses the following definition of net buildable acre. "Net Buildable Acre" consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads. While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads. Areas used for rights-of-way are considered unbuildable.

2001 to 2008 period, adding 6,532 *new* dwelling units. Some tax lots had pre-existing multifamily dwelling units. The average density for all residential development over the 2001 to 2008 period was 7.2 dwellings per net acre. [16]

Table 4. Average development density by structure type, dwelling units per net acre, 2001-2008, Eugene UGB

Structure Type	Tax Lots	Dwelling Units on Lots with Development between 2001-2008: Multifamily built prior to 2001	Dwelling Units on Lots with Development between 2001-2008: All DU Built 2001 to 2008	Dwelling Units on Lots with Development between 2001-2008: Total DU	Net Acres	DU/Net Ac
Single-family detached	4,335	NA	4,503	4,503	837	5.4
Single-family attached	173	NA	660	660	33	20.2
Structures with 2 to 4 units	178	75	371	446	52	8.6
Structures with 5 or more units	41	412	998	1,410	59	24.1
Total	**4,727**	487	6,532	**7,019**	**980**	**7.2**

Source: LCOG GIS data and City of Eugene Planning Department, 2008

Table 5 shows average development density by Comprehensive Plan Designation and structure type for the 2001 to 2008 period. Table 5 shows that residential density varied by plan designation and structure type. About 66% of new development occurred in Low Density Residential, 19% in Medium Density Residential, 15% in High Density Residential, and the remaining less than 1% occurred in a mixed use designation.

Table 5. Average development density by Comprehensive Plan Designation and structure type, dwelling units per net acre, 2001-2008, Eugene UGB

Plan Designation	Average Density (dwelling units per net acres): Single-family detached	Single-family attached	Structures with 2 to 4 units	Structures with 5 or more units	Average
Low Density Residential	5.2	35.5	4.3	na	5.2
Medium Density Residential	8.3	16.4	10.9	18.2	13.2
High Density Residential	13.8	36.7	31.0	33.6	31.0
Medium Density Residential Mixed Use	3.7	na	26.4	36.2	17.1
High Density Res Mixed Use	5.8	na	na	na	5.8
Mixed Use	8.5	na	5.9	na	7.2
Average	**5.4**	**20.2**	**8.6**	**24.1**	**7.2**

Source: LCOG GIS data and City of Eugene Planning Department, 2008

- Potential range of assumption: Tables 4 and 5 show the most recently data available about housing density in Eugene.

[16] The density of 7.2 units per net acre accounts for all development on the 4,727 tax lots shown in Table 4. While the density analysis focuses on development that occurred between 2001 and 2008, we would underestimate density on these taxlots if we did not account for multifamily dwellings built in phased development prior to 2001.

The City Council could consider alternative housing densities. State policy provides guidance for determining housing mix in the Portland Metro UGB and provides a safe harbor for determining housing density.

- OAR 660-007 requires that cities of 50,000 or more people in the Metro UGB assume that new residential construction will be average at least 10 dwelling units per net acre. Although OAR 660-007 does not apply to Eugene (because the City is not in the Portland Metro UGB), this rule does illustrate the housing density that cities in the Metro UGB are expected to achieve.
- OAR 660-024-0040(f) provides an optional safe harbor for cities that are not subject to ORS 197.296 and have at least 25,000 residents. This safe harbor assumes an average net density of 8.0 dwelling units per net acre. Although this safe harbor does not apply to Eugene (because the City is subject to ORS 197.296), this rule does illustrate the housing density that cities with 25,000 or more people are encouraged by the State to achieve.

- CAC and TAC discussion: CAC and TAC made no suggestions for alternative housing density assumptions. Two CAC members suggested increasing density and two CAC members suggested decreasing density.
- Current technical recommendation for baseline assumption: We recommend using Eugene's current housing density in the baseline analysis. Assumptions about future housing density may be revised based on direction from the City Council.
- Data source: 2001 to 2008 housing density: The assumption about housing density is based on development trends over the 2001 to 2008 period, based on LCOG GIS data and City of Eugene Planning Department's building permit data.

Residential development in commercial plan designations

Some housing is currently accommodated on land that is located in a commercial plan designation. Between 2001 and 2008, about 5% of housing located in a commercial plan designation. About 95% of the housing located in a commercial plan designation was multifamily housing with two or more units in the structure.

- Potential range of assumption: Multifamily housing can (and does) co-exist with commercial development. Given the recent mix of housing types, it would be plausible that between 5% and 15% of Eugene's future housing could be located in commercial plan designations. The share of housing located in commercial plan designations could be higher if the City designates more land for mixed-use development or if substantial redevelopment occurs as a mixture of housing and commercial uses in commercial plan designations. It

should be noted, however, that locating housing on land designated for commercial uses may displace some commercial uses.

- CAC and TAC discussion: The CAC and TAC reviewed and agreed with this assumption.
- Current technical recommendation for baseline assumption: We recommend assuming that 5% of housing will be accommodated on land designated for commercial uses.
- Data source: The assumption about housing located in commercial plan designations is based on development trends over the 2001 to 2008 period, based on LCOG GIS data and City of Eugene Planning Department's building permit data.

Converting net acres to gross acres

The existing data about residential density is in *net* acres, which does not include land for public right-of-way. One way to estimate the amount of land needed for housing including public right-of-way is to convert from *net* to *gross* acres based on assumptions about the amount of land needed for right-of-way.[17]

Table 6 shows the net acres as a percent of gross acres and a net-to-gross conversion factor.

Table 6. Net and gross acres by residential plan designation, Eugene UGB, 2008

Plan Designation	Gross Acres	Acres in Roads	Net Acres	Net Acres as a Percent of Gross Acres	Net-to-Gross Conversion
Low Density Residential	20,171	3,754	16,417	78%	22%
Medium Density Residential	1,916	298	1,618	80%	20%
High Density Residential	612	158	454	66%	34%
Total/Avg	**22,700**	**4,211**	**18,489**	**78%**	**22%**

Source: LCOG GIS data and City of Eugene Planning Department, 2008

- Potential range of assumption: The net-to-gross factor for housing built between 2001 and 2008 in Eugene averaged about 22%, based on analysis of residential development that occurred in Eugene between 2001 and 2008. Based on the data in Table 6, reasonable range of net-to-gross conversion factors in Eugene would be from 20% to 35%.

[17] OAR 660-024-0010(6) uses the following definition of net buildable acre. "Net Buildable Acre" consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads. While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads. Areas used for rights-of-way are considered unbuildable.

- CAC and TAC discussion: Several CAC members asked that we do more analysis about net-to-gross factors in Eugene. Table 6 shows the results of the additional analysis.
- Current technical recommendation for baseline assumption: We recommend using a net-to-gross factor of 22%.
- Data source: The net to gross factor is a point in time estimate based on LCOG GIS data and City of Eugene Planning Department's building permit data.

Residential redevelopment

The City of Eugene has a legal obligation to inventory the supply and estimate the capacity of buildable land within the UGB. The inventory must consider land that may be used for residential infill and redevelopment.[18] The City does *not* have an obligation to "create a map or document that may be used to verify and identify specific lots or parcels that have been determined to be buildable lands"[19] to show residential infill and redevelopment.

OAR 660-008-0005(6) defines redevelopable land as "land zoned for residential use on which development has already occurred but on which, due to present or expected market forces, there exists the strong likelihood that existing development will be converted to more intensive residential uses during the planning period." The administrative rule does not define what constitutes a "strong likelihood" for redevelopment.

Moreover, neither Goal 10, OAR 660-008, nor ORS 197.296 define "infill." Planners and Oregon land-use policy have seemed to define infill as either (1) development that occurs in areas that are already largely developed, or (2) development that occurs on "partially vacant" land. Both of those informal definitions have problems. The first one has no agreed upon, much less legally adopted, way of being measured. The second one requires a definition of partially vacant (generally agreed to mean taxlots that have some development, but less—perhaps substantially less—than plan and zone designations would allow, and some amount of vacant acreage—perhaps as little as a quarter acre that might be feasibly developed).

For the purposes of this study, **we define residential redevelopment as development that (1) occurs on land with existing development, *and* (2) results in a net increase in dwelling units.** The second condition means that the replacement of one dwelling unit with one other dwelling unit would not be counted. This definition includes infill on land where there is no demolition, as well as redevelopment that requires demolition of

[18] The legal requirements are described in ORS 197.296(3)(a) and (4)(a)(D).

[19] Quoted from ORS 197. 296(4)(c).

existing structures. Examples of residential redevelopment include: (1) demolition of a single-family dwelling and development of a duplex or apartment building, and (2) partitioning a lot with a single-family house and building a new single-family dwelling on the newly created lot.[20]

After evaluating different approaches for projecting future redevelopment rates and discussing this issue with the CAC at several meetings, City staff directed the consultants to proceed as follows regarding redevelopment:

1. Treat "infill" as a subset of "redevelopment."
2. Measure the amount of recent redevelopment using the methods described in the memorandum "Redevelopment Methodology and Results." In summary, use data from LCOG's address file to estimate the number of new residential addresses that were added between 2001 and 2008 to tax lots identified as developed in 2001. According to LCOG's quality assurance testing, the address file is very accurate and that this method of estimating redevelopment makes sense. We (ECO) believe that this is the first study to have used this advanced method, that it gives accurate results, and that it is the best information available about the actual amount of residential redevelopment (as defined by state rules) that occurred over a specific, identified period.
3. Use the estimate of the amount of recent redevelopment to create a rate that can be used as a baseline forecast for estimating future redevelopment. For example, if 500 new dwelling units (as identified by new residential addresses) were added over an eight-year period (2001 to 2008, inclusive), then redevelopment accounted, historically for an average of 62 dwelling units per year; if that rate is used for the baseline forecast, then about 1,250 new dwelling units will be built on developed land over the 20-year planning period.
4. Subtract the units estimated to be provided via redevelopment during the planning period (in the example above, 1,250 dwelling units) from the total needed (based on calculations described earlier in the memorandum) to get an estimate of *the number of new dwelling units that will be built during the 20-year planning period on land defined as "vacant" in the BLI.*
5. City staff checked the results of the analysis described in Steps 1 through 4 above, which initially showed that 722 dwelling units built between 2001 and 2008 resulted from redevelopment. Staff checked the records associated with the redevelopment status of 500 of the 722 dwelling units. The selection criteria that staff used to choose which instances of redevelopment to review was: (1) all instances where redevelopment added four or more addresses (31 tax lots); (2)

[20] Subdividing a lot and building an additional dwelling is sometimes referred to as infill. For the purposes of this study, we have categorized this type of development as redevelopment.

addresses flagged by a CAC member as possibly incorrectly identified as redevelopment; and (3) randomly selecting several addresses for review. Staff's analysis included review of aerial photos, review of RLID and GeoDart address files and a review of relevant permit data. This analysis concluded with the revised number of dwelling units shown in Table 7.

The next section describes results of our implementation of the first two sets, and the resulting estimate of the historical rate of redevelopment.

Results

Recent residential redevelopment includes **lots that had addresses coded before 2001 and received additional addresses after 2001.** ECO used the following criteria to identify residential redevelopment: (1) lots that had one or more address prior to 2001; and (2) lots that had additional addresses on the lot after 2001. Plan designation and zoning were not used as selection criteria. Rather, new residential units were identified by land use categories and improvement type. This methodology is consistent with the definition of redevelopment presented in the previous section.

Table 7 shows that between 2001 and 2008 a total of 527 new dwelling units occurred on tax lots that already had dwellings. Of these, 207 were on lots that had single-family dwellings and 144 were on lots that had retirement homes. All of the remaining units were on lots with some type of multi-family dwellings.

Table 7. Residential redevelopment: new dwellings on developed lots, Eugene UGB, 2001-2008

Existing Unit Type	Existing DU	New DU
Apartment With 1 To 4 Units	64	52
Apartment With 5 To 19 Units	120	59
Quad	4	2
Retirement Home	169	144
Single Family Housing	157	207
Two Family Housing Unit-Duplex	65	63
Total	**579**	**527**

Source: LCOG taxlot and address data; analysis by ECONorthwest
Note: Staff review of the analysis of redevelopment (described in the section above) reduced the estimate of new housing resulting from redevelopment from 722 to 527 dwellings.

Based on the results we estimate that about 527 new dwellings were constructed between 2001 and 2008 that could be considered redevelopment. This is about 8% of all housing production during the 2001 to 2008 period. New dwellings constructed on lots with pre-existing development is among the best indicators of redevelopment available because it provides an actual unit count of new housing by housing type for the analysis period. This number may overestimate the actual redevelopment on these lots;

some new dwellings may have been part of a phased development—particularly apartments. Despite these limitations, we feel this indicator is one of the more reliable redevelopment indicators.

- Potential range of assumption: There is little data available about historical rates of redevelopment. The data suggest that about 8% of all housing production during the 2001 to 2008 period were the result of redevelopment. Based on our experience conducting similar studies in other cities, we think that a reasonable range of redevelopment assumptions is between 5% and 20% of new housing would be accommodated through redevelopment.
- CAC and TAC discussion: Residential redevelopment was the most discussed issue with the CAC. Two CAC members suggest decreasing the assumption about the amount of redevelopment that may occur in the 20 year period and two suggest increasing it. One CAC member had concerns about the methodology used to estimate historical redevelopment.
- Current technical recommendation for baseline assumption: We recommend assuming about 8% of all new housing will be accommodated through redevelopment, nearly 1,200 new dwelling units.
- Data source: LCOG GIS data and City of Eugene Planning Department's building permit data.

2.3 PUBLIC AND SEMI-PUBLIC LAND NEEDS: BASELINE ASSUMPTIONS

Cities need to provide land for uses other than housing and employment. Public and semi-public facilities such as schools, governments, churches, parks, and other non-profit organizations will expand as population increases. The analysis of public and semi-public land needs is driven by needs identified by other agencies (e.g., school districts), needs identified by the City (e.g., parks), and historical needs. For the purpose of estimating land needed for other uses, these lands are classified into four categories:

- **Land needed for schools.** The 4J and Bethel school districts have plans for new schools by general location within the City and may have plans for selling surplus school properties.
- **Land needed for parks and open space.** This includes all land designated for park and open space use within the Eugene UGB.
- **Land needed for public operations and facilities.** This includes lands for city offices and maintenance facilities, county facilities, state facilities, federal facilities, and other related public facilities.
- **Lands needed for semi-public uses.** This includes churches, non-profit organizations, and related semi-public uses.

The framework and full analysis of employment land need that meets State requirements will be part of the final report. This section discusses the baseline assumptions necessary for determining the amount of land needed for public and semi-public uses over the 20-year planning period.

Schools

As population grows, school districts may need additional land for new schools in the planning period. ORS 197.296 requires that cities coordinate need for new land for schools with public school districts. We discussed land need with officials from the 4J and Bethel School Districts. School land needs are based on the estimate of land need provided by the school districts. The 4J School District does not expect to need new land over the 2011 to 2031 period. [21]

The Bethel School District expects to need two sites for future schools: (1) an 80-acre site for a high school and (2) a 40-acre site for a K-8 school. These needs could increase if the City expands the UGB and bring more residential land into the UGB in the School District. The District currently owns an 80-acre site that is located outside but adjacent to the UGB. The Bethel School District does not have surplus property.[22]

- Potential range of assumption: The school districts provided input on their expected land needs. Unless the Council finds these needs unreasonable, there is no range of assumptions.
- CAC and TAC discussion: CAC and TAC discussed school needs but did not have suggestions for alternative school land needs. CAC and TAC members discussed concerns about availability of existing sites within the UGB to accommodate the Bethel District's land needs.
- Current technical recommendation for baseline assumption: We recommend assuming that the 4J District will not need new land and that the Bethel District will need a 40-acre site and an 80-acre site.
- Data source: Interviews with school district officials.

Parks and open space

Parkland need is based on the City's plans for parkland acquisition described in the *Parks, Recreation & Open Space (PROS) Project and Priority Plan* This plan was adopted in 2006 and identifies acquisition and development priorities for a population consistent

[21] This information was provided by Barb Bellamy, Communications Director at 4J in an interview on March 12, 2009.

[22] This information was provided by Pat McGillivray, Communications Relations for the Bethel School District in an interview on March 12, 2009.

with that identified in ECLA. Parkland need is based on the specific projects identified in this plan.

- Potential range of assumption: Based on the *PROS Project and Priority Plan*, the City will need 1,980 acres of new parkland by 2031. Of this total, 160 are identified in residential areas within the UGB and 140 acres of parkland need identified in the plan are already owned by the City, but are located outside the UGB. These areas include the Golden Gardens expansion area and the Santa Clara Community Park. The parkland need identified in the plan assumes no expansion of the UGB. If new land is brought into the UGB to accommodate residential development, more parkland (especially for neighborhood parks) may be needed to serve that geographic area.
- CAC and TAC discussion: CAC and TAC discussed parkland needs but did not have suggestions for alternative parkland land needs beyond those identified in the *PROS Project and Priority Plan*. The CAC suggested that the City should address whether the PROS Project and Priority plan needs to adopted as a formal land use plan.
- Current technical recommendation for baseline assumption: We recommend that the City base parkland need on the *PROS Project and Priority Plan* need for 160 acres of parkland within the UGB in residential areas.
- Data source: City of Eugene Parks Department

Public facilities and operations

This category includes lands for city offices and maintenance facilities, county facilities, state facilities, federal facilities, and other related public facilities. It does not include right-of-ways, land used by the railroad, or land owned by the Bonneville Power Administration. The City currently has 6.6 acres per 1,000 people (1,174 acres) for public facilities and operations.

- Potential range of assumption: Based on the existing level of service (6.6 acres per 1,000 people) and expected population growth, the City may need about 225 acres of land for public facilities and operations over the planning period. This estimate seems high because Eugene already has many of the operations that are necessary for a city the size of Eugene, such as: a wastewater treatment facility, local and regional government office buildings, the University of Oregon's campus and related facilities, utility and other operations, and other public facilities. An alternative assumption might be that Eugene will need 100 new acres of land (2.9 acres per 1,000 people) for public facilities and operations. Among other things, this estimate of land need will address the

University of Oregon's expected growth of 30-acres over the planning period.[23]

- CAC and TAC discussion: CAC and TAC discussed public facilities and operations land need and seemed to think that assuming a need for 6.6 acres per 1,000 people was too high. Some committee members were concerned about the availability of sites within the UGB to provide for needed public facilities.
- Current technical recommendation for baseline assumption: We recommend assuming need for 100 acres of land for public facilities and operations.
- Data source: LCOG GIS data and City of Eugene Planning Department's building permit data

Semi-Public uses

This category includes lands for semi-public uses, such as churches, non-profit organizations, and related semi-public uses. The City currently has 1.3 acres per 1,000 people (232 acres) for semi-public uses.

- Potential range of assumption: The City could assume that future need for semi-public land will be similar to current uses, at 1.3 acres per 1,000 people. Under that assumption, the City will need about 50 acres for semi-public uses over the 20-year planning period.
- CAC and TAC discussion: CAC and TAC had no comments on the need for future semi-public land needs.
- Current technical recommendation for baseline assumption: We recommend assuming need for 1.3 acres per 1,000 people or 50 acres of land for public facilities and operations.
- Data source: The assumption about need for semi-public land is a point in time estimate, based on LCOG GIS data and City of Eugene Planning Department's building permit data.

[23] Christopher Ramey, Associate Vice President at the University of Oregon, said that the University expects to purchase and develop roughly 30-acres over the 20-year planning period.

3 APPENDIX A: SUMMARY OF ASSUMPTIONS AND RECOMMENDED VALUES FOR THE LAND NEED ANALYSIS

Variable	Rec. Value	Source of Data	Rationale	Reasonable Range
Employment Land Needs				
Employment growth	1.4%	State of Oregon	Safe harbor and forecast	0.9% to 2.1%
Share of Emp by Type		State of Oregon	Current mix	
Industrial	18%			15% - 23%
Commercial	54%			46% - 55%
Retail	13%			13% - 15%
New Employment in Non-employment PD	15%	State of Oregon	Current percentage	10% - 20%
New Employment in Existing Built Space	10%	City of Eugene	Other cities	5% - 20%
Employment Redevelopment		City of Eugene	Other cities	10% to 50%
Industrial	10%			
Commercial	15%			
Retail	35%			
Employment Density		State of Oregon	Current average	Varies
Industrial	13 EPA			5-20 EPA
Commercial	68 EPA			30-93 EPA
Retail	23 EPA			20-37 EPA
Net to Gross for Right-of-Way	20% (15%)	City of Eugene	Current average	15% - 20%
Residential Land Needs				
Population Growth	0.9%	Lane County	Adopted Forecast	None
Population in Group Quarters	5.3%	US Census	Current average	4.4% - 5.5%
Persons per Household	2.25	US Census	Safe harbor	Difficult to estimate
Residential Vacancy Rate	5%	US Census	Recent data	3.5% - 6.5%
Housing mix		City of Eugene	Historic data & recent trends	
Single-family detached	61%			45% - 69%
Single-family attached	7%			7% - 10%
Two to five units	10%			6% to 10%
Five or more units	22%			18% to 35%
Housing Density	7.3	City of Eugene	Recent trends	Average of 6.7-10.0 Dwelling units per acre
Single-family detached	5.4			
Single-family attached	20.2			
Two to four units	8.6			
Five or more units	24.1			
Residential development in commercial PD	5%	City of Eugene	Current percentage	5% - 15%
Residential redevelopment	8%	City of Eugene	Recent trends	5% to 20%
Net to Gross for Right-of-Way	22%	City of Eugene	Current average	20% to 35%
Public and Semi-Public Land Needs				
Park Land (inside the UGB)	160 acres	City of Eugene	PROS Project and Priority Plan	N/A
Schools			School Districts	N/A
4J School District	0 acres	4J		
Bethel School District	120 acres	Bethel		
Public Operations and Facilities	100 acres	City of Eugene	Recent trends	100 - 230 acres
Semi-public uses	50 acres	City of Eugene	Recent trends	25 - 75 acres

Note: Note: We excluded government employment growth because government land need is accommodated through public and semi-public land needs

Community Advisory Committee Recommendations on ECLA & Outstanding Issues

Overall Process

- Findings
  1. The baseline assessment provides a reasonable estimate of Eugene's land need in acres if there were no changes to assumptions (referenced in item 2), policy or program areas that would affect the need for residential or employment lands.
  2. The baseline assumptions are shown in Appendix A of the Assumptions Memorandum and represent a mixture of forecasts (population growth, employment growth), the continuation of development trends (housing mix, housing density; primarily from 2001-2008) and adopted policy.

- Discussion
  1. Alternative growth scenarios will be created in the Envision Eugene process that will reflect a community discussion about growth. One of these scenarios will reflect the baseline assumptions from ECLA.
  2. The preferred scenario from the Envision Eugene process will become the basis for any necessary changes to policies, plans and regulations. Not all deviations from the baseline assumptions will require policy changes.
  3. The configuration and location of industrial lands will be informed by economic development discussions and will be incorporated in future Envision Eugene discussions

- CAC Recommendation:
  1. Accept the results of ECLA for use in the Envision Eugene process.
  2. Ensure that the list of key policy questions and issues from the ECLA process are carried forward into Envision Eugene.

Outstanding Issues

1. Density on Slopes

- Findings
  1. Data originally presented as part of ECLA grouped densities for all slopes from 5%-30% into one average value.
  2. Further examination of this data revealed that it does accurately reflect the densities that have been achieved on slopes.
  3. There is a desire to reflect the data in as robust a fashion as possible.

- CAC Recommendation
  1. Breakout the density on slopes into the following categories: 5%-15%, 15%-25% and 25%-30% as opposed to grouping them into one average amount.

2. Density – Planned Unit Developments

- Findings
  1. Dedicated open space as required by Planned Unit Developments (PUD's) (or subdivisions) presents a challenge when calculating density. ECLA calculated densities based on lots with dwelling units.
  2. A thorough analysis was done of the data and information previously presented. This information was compared to an analysis of recent PUD's that was done by a CAC member.
  3. Although an alternative methodology for calculating densities was discussed, this method produced nearly identical results to the original ECLA analysis and would have proven more time and resource intensive to apply.

- CAC Recommendation
  1. No change is needed to the data or information previously presented.
  2. Future efforts to calculate densities should include a methodology that more purely addresses the impact of lots without dwelling units (dedicated open space) on overall densities.

3. Net to Gross Ratio

- Findings
  1. Based on an analysis of all land in Eugene, ECLA determined a net to gross factor of 78% for all lands designated as Low Density Residential.
  2. ECLA also estimated that this factor would apply differently to different size lots. Less infrastructure is needed for small lots (<5 acres) than is needed for large lots. As such, an adjustment factor based on lot size was warranted.
  3. Further analysis of the data revealed that while the adjustment factor for lots smaller than one acre and greater than 5 acres was appropriate, the adjustment factor for lots of 1-5 acres was too low.

- CAC Recommendation
  1. Change the adjustment factor for net to gross on lots from 1-5 acres in size from 50% to 70%.

4. Plan Designations

- Findings
  1. State law requires that all land considered "buildable" (for housing) have a plan designation that allows residential uses (OAR 660-008-0020(1)).
  2. There are some parcels within the UGB for which the Metro Plan may not assign an unambiguous plan designation.
  3. The Regional Land Information Database (RLID) currently assigns a specific plan designation to all parcels within the UGB.

4. The current version of ECLA's Buildable Lands Inventory identifies residential buildable land based on RLID's plan designations.
5. There would be a significant reduction in ECLA's residential buildable land supply if this supply excluded parcels that may have an uncertain plan designation under the Metro Plan.
6. There is a risk (under the current ECLA approach, as described in Finding 4) that the State may not approve future Metro Plan amendments based on a Buildable Lands Inventory that assumes plan designations for potentially indeterminate parcels.
7. The Eugene City Council can amend the Metro Plan so the plan assigns a specific plan designation to all parcels within the UGB, thus resolving this issue.

- CAC Recommendation
  1. Prior to adoption of a Eugene-only UGB, assign specific plan designations to all parcels whose designation may be uncertain under the Metro Plan.
  2. Advise staff if ECLA should use an interim approach (prior to Council action) that is different than the current approach as described under Finding 4.

5. Wetlands

- Findings
  1. There are 230 acres of Local Wetland Inventory (LWI) wetlands inside the UGB that are not protected by Goal 5. Of these, 183 acres are on lands classified as developable by ECLA. This represents 6% of the total acreage classified as developable.
  2. 60% of these wetlands are on the 195 acre site in NW Eugene that has a plan designation of Special Heavy Industrial.
  3. Due to state and federal permitting, it is uncertain to what degree future development applications will be approved that include the filling/mitigation of wetlands.

- CAC Recommendation
  1. Given the assumed densities in ECLA, it is likely that these densities will be achieved even with the uncertainty surrounding permits for wetland fill.
  2. The affected acreage was not sufficient to warrant a change to the underlying assumptions for the capacity of these lands.
  3. Given the nature of recent state and federal permitting of LWI wetlands, it may be necessary for the community to examine additional local protections for these wetlands as part of the Envision Eugene process.

6. Parkland Need Inside UGB

- Findings
  1. Further analysis by staff concluded that the most appropriate way to reflect parkland need over the next 20 years was to utilize the adopted Project and Priority Plan. This is a useful

tool because it identifies park development and acquisition activities by type and geography.

2. The parkland need estimates for ECLA are not a definitive cap on parks acquisition activities in the future. However, any park acquisition beyond the needs identified by ECLA would need to be assessed for their impact on buildable lands.

- CAC Recommendation
  1. Revise the parkland need estimates in the Public & Semi-Public Land Need report and all final documents to be based upon the acreage need identified by the Project and Priority Plan.
  2. Recommend that the City examine if a more formal plan (i.e., adopted land use plan) will be needed as part of the adoption package developed at the conclusion of Envision Eugene.

7. Traffic Impact Analysis/Transportation Planning Rule

- Findings
  1. Due to existing or forecasted capacity constraints experienced by certain streets and highways in the city, some areas of the city are potentially limited by local or state transportation requirements that may have an impact on the future developability of lands.

- CAC Recommendation
  1. No change is needed to the data or information previously presented in ECLA.
  2. Given the densities assumed in ECLA, it is likely that these densities can be achieved even with the potential limiting factor of compliance with local or state transportation requirements.
  3. Ensure that all assumptions related to any potential expansion areas identified in the Envision Eugene process have associated Goal 12 (Transportation) findings that include transportation infrastructure improvements needed to support development assumed over the 20 year planning period.

8. Residential Redevelopment

- Findings
  1. The number of new dwelling units that will be provided through redevelopment is a critical component of housing capacity.
  2. ECLA estimated that during the 2001-2008 period, 8% of all new dwelling units constructed were associated with redevelopment.
  3. ECLA forecasts how much redevelopment will occur in the future by simply assuming the same ratio of redevelopment dwelling units to total dwelling units that has occurred in the past.

4. An analysis of the current supply of developed lands with characteristics similar to those lands that redeveloped during the 2001-2008 period indicates that a sufficient supply of land likely exists to allow an 8% redevelopment rate going forward.
5. Redevelopment and its relationship to other factors such as housing mix, affordability and the overall constraints on land (i.e., location of Eugene-only UGB and implications on market forces), will be examined during the Envision Eugene process.

- CAC Recommendation
  1. No substantive change to the data or information previously presented in ECLA. The number of units added through redevelopment decreased slightly due to additional scrutiny of the data; however it did not change the 8% redevelopment rate.
  2. The Envision Eugene process should attempt to model redevelopment as a function of land supply and other factors.
  3. This process should also consider the importance of community concerns regarding infill and livability and the relationship of these to redevelopment and the final location of the UGB.

9. Density Projections on Vacant Land

- Findings
  1. The land need identified in ECLA for the next 20 years is based on the assumption that densities achieved during the 2001-2008 period will be the same in the future for vacant lands.
  2. It is reasonable to expect that these densities may be different in the future due to policy changes or other potential shifts in land use and development trends that will not require policy changes.
  3. The Envision Eugene process allows for the examination and modeling of land need based on densities that may be different from that assumed in ECLA.

- CAC Recommendation
  1. No change is needed to the data or information previously presented in ECLA.
  2. Documentation in ECLA should be clear as to what the baseline land need represents as it relates to density.

10. Drainageways/Stormwater

- Findings
  1. Drainageways - The Stormwater Management Manual discusses guidance that pertains to development that may impact open drainageways in the city. These provisions do not presently preclude or prohibit development but rather help to mitigate impacts. Many, but not all of these areas are located in the River Road and Santa Clara neighborhoods. Public Works is considering amendments to the drainageway regulations.

2. Stormwater – The draft Stormwater Basin Master Plan for River Road-Santa Clara basin discusses guidance that pertains to development below the level of the 25-year floodplain. These provisions do not preclude or prohibit development but rather help to mitigate impacts.

- CAC Recommendation
  1. Drainageways – Open drainageways subject to the provisions of the manual shall remain in the Buildable Lands Inventory as developable land. It is important to note that future changes to policies regarding drainageways could include provisions in the manual to prohibit development in these areas. If this were to occur, the land inventory would need to account for any areas that would be removed from the inventory.
  2. Stormwater – The group did not reach consensus on this issue. Areas below the 25-year storm event will remain in the Buildable Lands Inventory as developable land. However, there is not agreement that the provisions in the draft plan do not preclude or prohibit development. There is agreement that these lands represent a very small acreage, however they are not mapped and cannot be readily located. This issue should be examined further during the Envision Eugene process.

11. Nodal Development/Residential in Commercial

- Findings
  1. TransPlan identifies a nodal development strategy for the City of Eugene. Efforts to implement this strategy have resulted in the adoption of several mixed use center and nodal overlay zones into the land use code.
  2. The density assumptions in ECLA for vacant land in nodes are consistent with what would be expected under the current provisions in code for the various plan designations in these areas.
  3. Data associated with the ECLA estimate of the amount of residential development in commercial areas was reviewed and found to be sufficient.

- CAC Recommendation
  1. No change is needed to the data or information previously presented in ECLA.
  2. It should be noted that ECLA does not make assumptions about future land need based on all the nodes identified in the TransPlan nodal strategy. This is because the full implementation of this strategy is not reflected in current policies (i.e., re-designation and re-zoning).
  3. The Envision Eugene process should provide the opportunity to examine how further implementation of Eugene's nodal strategy may result in more efficient use of land. This may include examination of new policies or code provisions.

12. Housing Mix

- Findings
  1. The land need identified in ECLA for the next 20 years is based on the assumption that the housing mix (i.e., single family detached versus multi-family housing types) will be the same in the future as it has been during the 2001-2008 period (which is similar to as it has been for roughly the past 30 years).
  2. Information on housing affordability will be provided as part of ECLA, for use during the Envision Eugene process as discussions occur about future housing types and their relationship to affordability.
  3. Staff confirmed that the information on manufactured homes on lots as a percentage of our housing mix was correct based on validating state data with data collected by the City of Eugene Development Division.
  4. The housing types currently included in the analysis are sufficient for the purposes of ECLA.

- CAC Recommendation
  1. No change is needed to the data or information previously presented.
  2. It will be important for the Envision Eugene process to consider and document the housing types that the City supports from a policy perspective (e.g., secondary dwelling units, high occupancy apartments, etc.) so that future changes to the code can be evaluated for their impact on the policy assumptions. This is recognition of the fact that although ECLA and Envision Eugene focus on dwelling units, consideration of the housing types that we assume will contain these units is also essential.
  3. The Envision Eugene process allows for the examination and modeling of land need based on a housing mix that may be different from that assumed in ECLA and that may include consideration of new policies that address affordability issues. Not all assumptions about a different housing mix in the future will require policy changes.

13. Underbuild Rate / Utilization Factors

- Findings
  1. "Utilization" is a measure of how much of maximum potential housing capacity is actually built. Factors that affect anticipated utilization (for example, slope) are among the assumptions in ECLA. "Underbuild rate" is the inverse of utilization, i.e., how much of maximum potential housing capacity is <u>not</u> built.
  2. The proposal to incorporate "underbuild rate" was intended to improve ECLA's analytic capabilities by a systematic approach to utilization factors, not *replace* reporting historical or anticipated densities.
  3. The statute that was adopted by the legislature and that initiated the ECLA and Envision Eugene processes (ORS 197.296) specifically directs Eugene and Springfield to report average housing density, actual and anticipated density and density ranges. DLCD staff have confirmed that this language indicates that Eugene needs to plan for specific housing densities.

4. Incorporating utilization factors into housing need modeling (or forecasting) does not prevent reporting historical or anticipated densities, as required by ORS.
5. Portland metro area cities are the only cities in the state that currently report on and plan for housing density as a function of underbuild because there are specific rules that require them to do so.
6. Incorporating utilization factors into the Envision Eugene analyses as a modeling concept may be useful in forecasting anticipated density

- CAC Recommendation
  1. No change is needed to the ECLA data or information previously presented.
  2. Recommend that this issue be addressed in Envision Eugene.

ECLA Key Policy Issues for Envision Eugene
April 15, 2010

The following is a list of issues that have been recommended by the Eugene Comprehensive Lands Assessment (ECLA) Community Advisory Committee (CAC) for consideration in Envision Eugene. Any changes to policies regarding these issues could potentially impact the overall land need identified by the Envision Eugene process. Ultimately City Council will determine which issues should be addressed as part of Envision Eugene.

Issues with Specific CAC Recommendations – These issues have specific recommendations from the CAC that are presented in Attachment B. They are only briefly summarized here.

- Residential Redevelopment – Additional analysis of redevelopment as of function of other land use and market factors should be included in Envision Eugene.

- Nodal Development – Further examination of the TransPlan nodal (mixed use) strategy should be considered in Envision Eugene as a land use efficiency measure.

- Stormwater & Drainageway Issues – There is agreement that drainageways are buildable given current regulations, but less agreement around areas below the 25-year flood interval. Potential amendments to the drainageway regulations and addressing the stormwater issue should be considered in Envision Eugene.

- Wetlands – Additional protections for Local Wetland Inventory wetland areas should be considered in Envision Eugene.

- Plan Designations – The CAC has recommended that the metro plan be made parcel specific in all cases prior to adoption of a Eugene-only UGB.

- Parkland Need – Under the revised methodology, parkland need would be calculated based on the adopted Project and Priority Plan. Community discussion about parkland needs beyond those specified in this plan may be appropriate in Envision Eugene.

- Housing Types/Density – Address housing types at a finer grain, particularly as it relates to future code amendments.

- Transportation – Ensure that all assumptions associated with potential expansion areas (if needed) have addressed Goal 12 (transportation) findings that include needed infrastructure improvements.

- Utilization – Incorporating utilization factors (how much of the maximum housing capacity is actually built) as a modeling concept in Envision Eugene should be considered.

General Issues

- Housing Affordability – Information on housing affordability has been provided in ECLA. The Envision Eugene process will need to consider how much of a factor affordability should be in the choices about future density and housing mix.

- Climate & Energy Action Plan – Consider the findings from this plan that may be related to land use (i.e., climate change, peak oil). This plan is anticipated to be completed in late-summer 2010.

- Economic Development – New economic development goals or policies could impact our site needs for employment lands. Currently ECLA lacks a strategy for larger employment sites as there is no discrete policy to guide this land need. Envision Eugene should address this issue.

- Natural Resources – Additional protections for natural areas beyond current Goal 5 regulations may be an issue that should be considered in Envision Eugene.

- Market Trends – Envision Eugene should consider the impact of future market trends on land need, as these would not require changes to policies.

Project Committee Members
Eugene Comprehensive Lands Assessment

Community Advisory Committee Member List

Jon Belcher	At-Large
Howie Bonnett	Eugene Sustainability Commission
Merle Bottge	Developed Parks Community
Norton Cabell	Eugene Housing Policy Board
Paul Conte	At-Large
Rick Duncan	Eugene Planning Commission (non-CAC member attendee)
Kim Hyland	At-Large
Carolyn Jacobs	Eugene Neighborhood Leaders Council
Bill Kloos	Eugene Area Chamber of Commerce
Kevin Matthews	City-Wide Local Advocacy Group
Brent McLean	Commercial/Retail Community
Laura Potter	Home Builders Association of Lane County
Matt Powell	Eugene Association of Realtors
Erik Riechers	Investment Community
Jack Roberts	Lane Metro Partnership
John Winquist	Natural Resource Community

Agency Technical Advisory Committee Member List

Barb Bellamy	Eugene 4J Schools
Neil Bjorklund	Eugene PW Parks
Savannah Crawford	ODOT
Terri Harding	Eugene ICS & OS Projects
Pat McGillivray	Bethel Schools
Ed Moore	DLCD
Steve Nystrom	Eugene PDD Planning
Jeannine Parisi	EWEB
Linda Pauly	City of Springfield
Chris Ramey	University of Oregon
David Roth	Eugene PW Engineering
Stephanie Schulz	Lane County
Tom Schwetz	Lane Transit District
Mike Sullivan	Eugene PDD Development
Bob Warren	Oregon Economic & Community Development Department