



## MEMORANDUM

**TO:** City of Oakridge and Westfir HNA Project Management Team

**FROM:** Ayano Healy, Sylvia Leon Guerrero, and Jamin Kimmell, Cascadia Partners

**DATE:** June 6th, 2022

**PROJECT:** Oakridge and Westfir's Housing Needs Analysis

**SUBJECT:** **Buildable Lands Inventory**

This memorandum provides a summary of the 2022 residential Buildable Lands Inventory (BLI) results and methodology for the City of Oakridge's and the City of Westfir's Urban Growth Boundaries (UGB).

The objective of the residential BLI is to estimate the number of unconstrained buildable acres for future housing development within Oakridge's and Westfir's UGB. The BLI is a key component of the Residential Land Needs Analysis (RLNA) and will inform planning and policy recommendations that are proposed in the final Housing Needs Analysis (HNA) report.

This BLI analysis was completed in accordance with [OAR 660-008-0005 \(2\)](#) and with guidance provided by Oakridge and Westfir city staff and the Department of Land Conservation and Development (DLCD).

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# Summary of Buildable Land Inventory Results

## City of Oakridge

Approximately 246 acres of land zoned for residential use are available for residential development in the City of Oakridge’s UGB, described in this memo as buildable acres (see [Table 1](#)). The low- density residential zone R1 and the comprehensive plan designations of U and R make up roughly 92% of the total buildable acres. Zones C2, C3, M1, which are not exclusively zoned for residential, make up the remaining 8%.

Note that there are no buildable acres in the R2 zone because all parcels zoned R2 within Oakridge’s UGB are classified as unavailable for development.

A significant number of parcels are vacant, comprising 63% of the buildable acres. The majority of the remaining buildable acres consist of parcels with existing single-family homes that measure more than half an acre and qualify as partially vacant lands per the safe harbor method of UGB analysis for cities with populations below 25,000.<sup>1</sup> As a result, land set aside for residential development opportunities in partially vacant parcels comprise over 37% of the total buildable acres.

**Table 1. Summary Residential Buildable Lands Inventory, City of Oakridge UGB, 2022**

Plan Designation or Zone District	Gross Acres	Constrained Acres	Vacant Acres	Partially Vacant Acres	Buildable Acres
<b>Low-Density Residential (R1)</b>	806.6	229.0	127.0	61.9	188.9
<b>Medium-Density Residential (R2)</b>	1.3	0	0	0	0
<b>Central Commercial (C2)</b>	27.0	2.0	1.2	--	1.2
<b>Highway Commercial (C3)</b>	129.3	1.9	10.8	7.3	18.1
<b>Mixed Use (M1)</b>	19.5	1.2	0.2	--	0.2
<b>Urban Residential (U)</b>	68.1	7.2	10.6	18.8	29.4
<b>Rural Residential (R)</b>	16.8	3.6	5.0	3.5	8.5
<b>TOTAL</b>	<b>1,068.6</b>	<b>244.9</b>	<b>154.8</b>	<b>91.5</b>	<b>246.3</b>

Buildable lands in the City of Oakridge UGB have a capacity for 1,190 housing units (see [Table 2](#)). Housing capacity is estimated using projected housing unit densities established for each zone district that has land available for residential development. Approximately 83% of the total housing capacity is in Oakridge’s Residential (R1) zone. Most smaller communities have

<sup>1</sup> See [OAR 660-008-0005 \(2.b.B\)](#)

the great majority of their housing capacity in low density zones, but Oakridge’s share of buildable land in a low density zone is relatively high at over 80%.

The majority of the remaining housing capacity, 13%, is concentrated outside of Oakridge’s city limits and has a comprehensive plan designation of Urban Residential (U) that is assumed to develop at similar a density as the R1 zone. Note that zones that are not strictly residential (C2, C3, and M1) have lower projected net densities because a most of the land area in these zones is assumed to develop in non-residential uses. The R2 zone is not included in Table 2 because it does not have any buildable land.

**Table 2. Summary of Housing Unit Capacity, City of Oakridge UGB, 2022**

Plan Designation or Zone District	Buildable Acres	Projected Density (units/net acre)	Housing Unit Capacity
Low-Density Residential (R1)	188.9	5.2 units / acre	987
Central Commercial (C2)	1.2	2.1 units / acre	3
Highway Commercial (C3)	18.1	2.1 units / acre	38
Mixed Use (M1)	0.2	2.1 units / acre	0
Urban Residential (U)	29.4	5.2 units / acre	154
Rural Residential (R)	8.5	1.0 units / acre	8
<b>TOTAL</b>	<b>246.3</b>	--	<b>1,190</b>

## City of Westfir

Approximately 60 acres of land zoned for residential use are available for residential development in the City of Westfir’s UGB, described in this memo as buildable acres (see 4). The low-density residential zones of CR and R-1 make up roughly 64% of the total buildable acres. The remaining 36% is comprised of the high-density residential zone R-3 and mixed-use zone MU. Note that there are no buildable acres in the R plan designation because the parcels with that plan designation and that are not already zoned within Westfir’s UGB were classified as unavailable for development.

One large parcel with minimal existing development and multiple zones accounts for most of the buildable acres in Westfir. Several remaining parcels with existing single-family homes that measure more than half an acre qualify as partially vacant lands per the safe harbor method of UGB analysis for cities with populations below 25,000.<sup>2</sup> Combined, land set aside for residential development opportunities in partially vacant parcels comprise over 69% of the total buildable acres. The remaining 31% of buildable acres are vacant parcels.

<sup>2</sup> See [OAR 660-008-0005 \(2.b.B\)](#)

**Table 4. Summary Residential Buildable Lands Inventory, City of Westfir UGB, 2022**

Plan Designation or Zone District	Gross Acres	Constrained Acres	Vacant Acres	Partially Vacant Acres	Buildable Acres
Community Residential (CR)	84.4	40.5	11.9	3.6	15.6
Low-Density Residential (R-1)	28.1	12.2	--	22.8	22.8
High-Density Residential (R-3)	4.8	1.3	--	3.5	3.5
Mixed Use (MU)	19.6	0.9	6.4	11.6	18.1
Residential Plan Designation (R)	1.6	0.4	0	0	0
<b>TOTAL</b>	<b>135.4</b>	<b>55.3</b>	<b>18.3</b>	<b>41.5</b>	<b>60.0</b>

Buildable lands in the City of Westfir UGB have a capacity for 223 housing units (see [Table 4](#)). Housing capacity is estimated using projected net housing unit densities established for each zone district that has land available for residential development. Approximately 59% of the total housing capacity is in Westfir’s Community Residential (CR) and Low-Density (R-1) zones.

The remainder of the housing capacity is in Westfir’s in the Mixed Use (MU) zone, where it’s assumed that only 25% of the zone’s buildable land can expect residential development, and in the High-Density Residential (R-3) zone.

**Table 5. Summary of Housing Unit Capacity, City of Westfir UGB, 2022**

Plan Designation or Zone District	Buildable Acres	Projected Density (units/net acre)	Housing Unit Capacity
Community Residential (CR)	15.6	4.4 units / acre	68
Low-Density Residential (R-1)	22.8	2.7 units / acre	63
High-Density Residential (R-3)	3.5	11.5 units / acre	40
Mixed Use (MU)	18.1	2.8 units / acre	52
<b>TOTAL</b>	<b>60.0</b>	<b>--</b>	<b>223</b>

Table 6 summarizes the estimated existing density in the City of Westfir. The number of units was estimated based on existing zoning and building classification and is an estimate only. For all zones, projected densities listed in Table 5 are higher than estimated existing densities.

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## Buildable Land Inventory Maps

The BLI results are presented in the following series of maps:

- Figure 1. Residential Land Base
- Figure 2. Land Classification by Development Status
- Figure 3. Environmental Constraints
- Figure 4. Draft Buildable Land Inventory

Figure 1. Residential Land Base

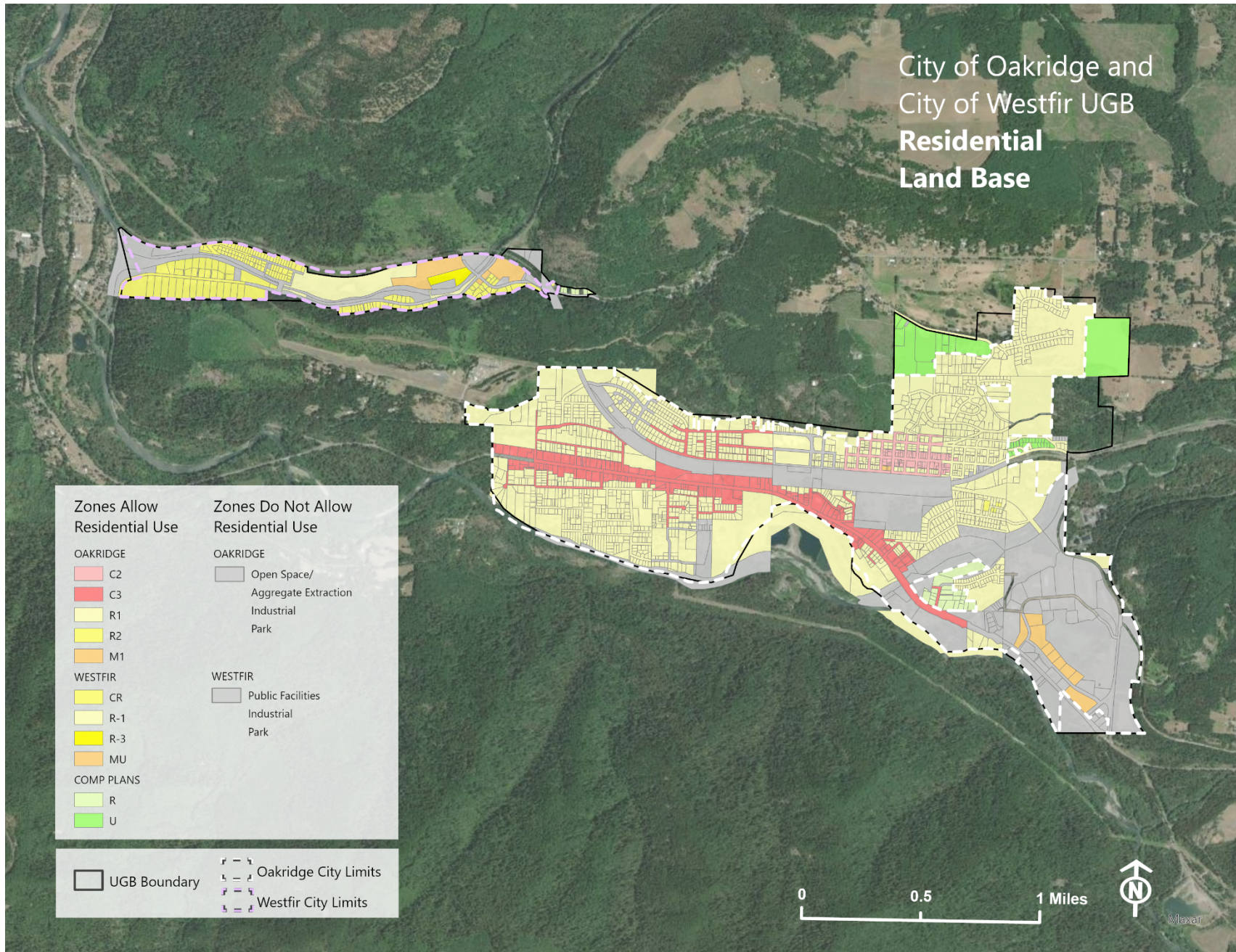


Figure 2. Land Classification by Development Status

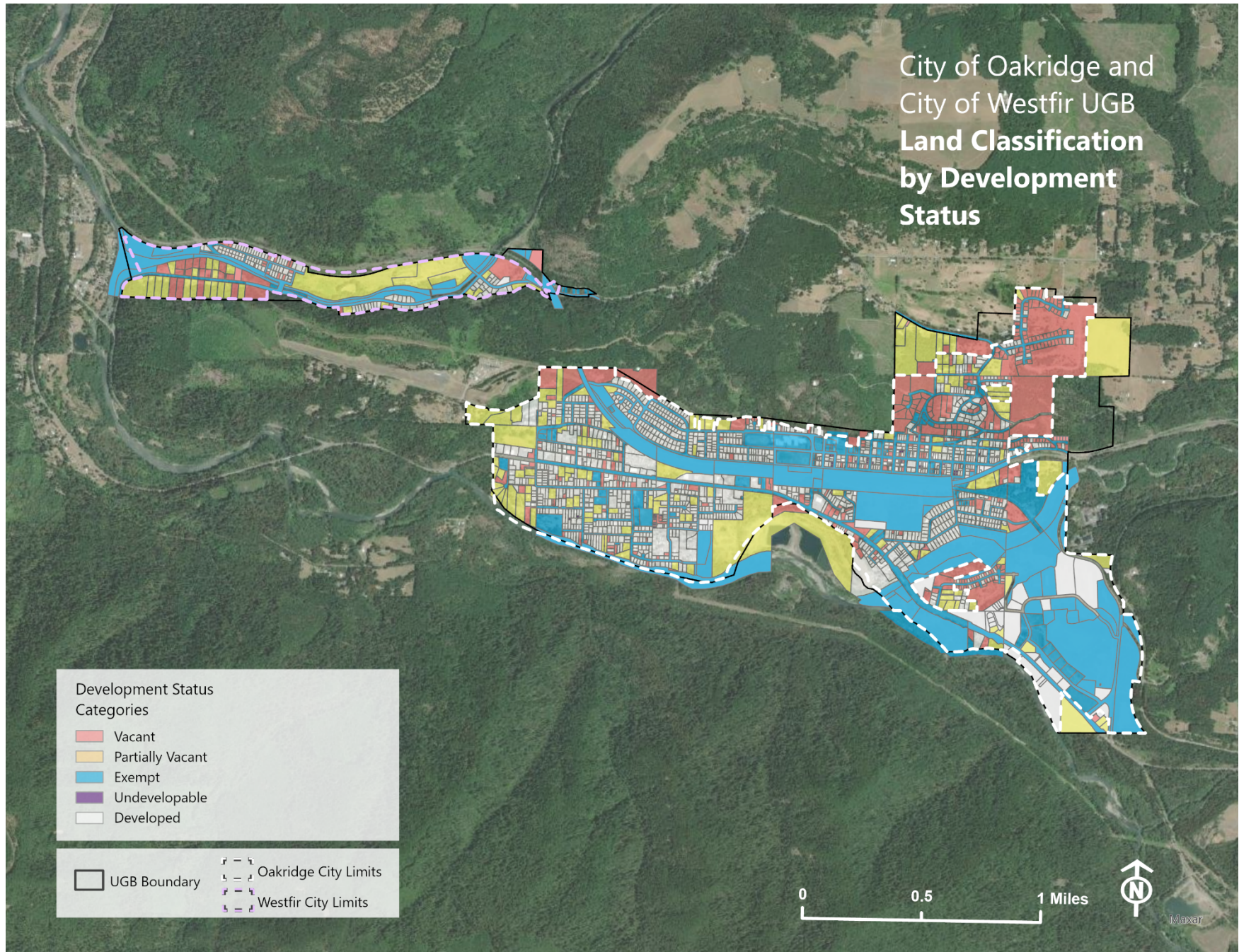


Figure 3. Environmental Constraints

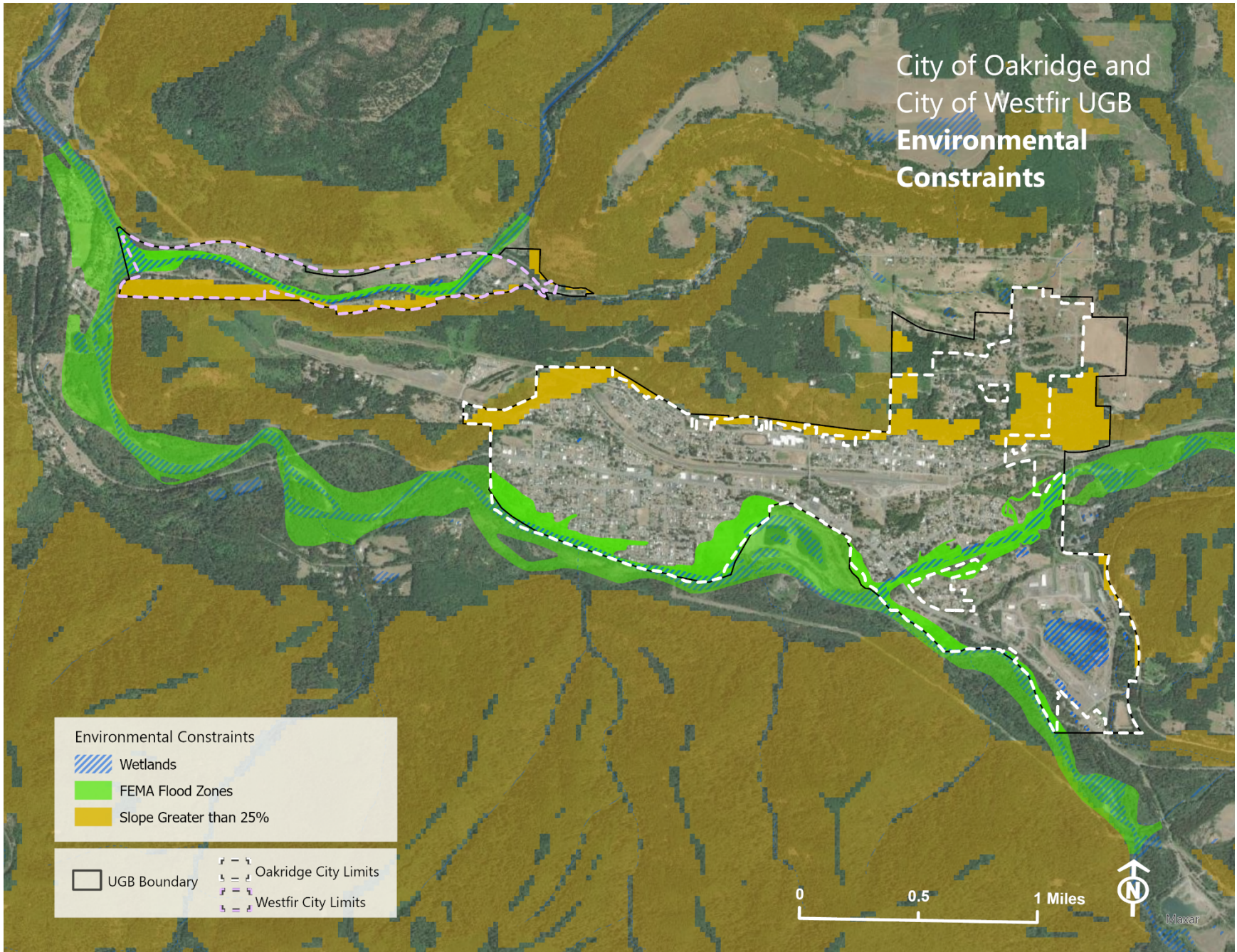
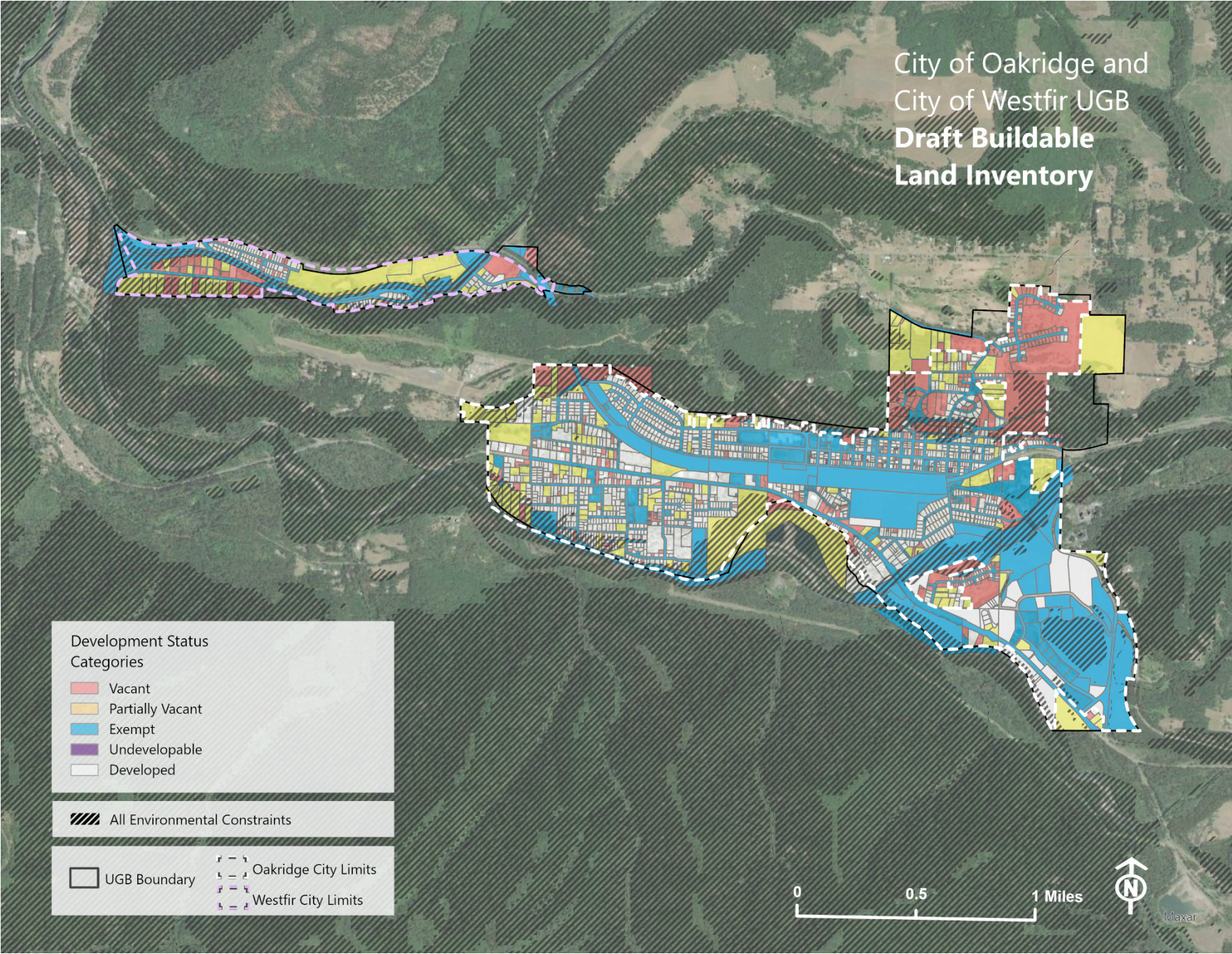




Figure 4. Draft Buildable Land Inventory



## Methodology

The steps taken to perform this BLI analysis are as follows:

1. Generate the residential land base by identifying all tax lots (parcels) that are zoned to allow residential development (either permitted outright or as a conditional use).
2. Classify parcels from the residential land base into development status categories that determine parcels as available for development or unavailable for development.
3. Create a unified environmental constraints layer to subtract from the residential land base. The unified environmental constraints layer identifies land that is unsuitable for development due to natural hazards.
4. Apply housing density projections to all buildable lands to estimate housing unit capacity.

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### 1. Residential Land Base

Determining the residential land base is the first step in the BLI analysis. The residential land base is composed of lands that are zoned to allow residential uses by right or as conditional uses.

#### Oakridge

The following zoning classifications, mapped in [Figure 1](#), are determined to allow residential uses in Oakridge:

- **Low-Density Residential (R1):** Under the City of Oakridge zoning and land development ordinance No. 874, parcels zoned Low-Density Residential allow one dwelling unit on a lot measuring at least 5,000 square feet. Permitted housing types include single family homes, manufactures homes, duplexes on lots measuring at least 7,000 square feet, triplexes on corner or double-frontage lots measuring at least 9,000 square feet, and other residential care and home occupation types.
- **Central Commercial (C2):** Under the City of Oakridge zoning and land development ordinance No. 874, parcels zoned Central Commercial allow existing residential uses and new residential uses, except new mobile home parks.
- **Highway Commercial (C3):** Under the City of Oakridge zoning and land development ordinance No. 874, parcels zoned Highway Commercial allow existing residential uses and new residential uses, except new mobile home parks. Permitted housing types include mixed-use, manufactured housing, and other residential care and home occupation types.

- **Mixed Use (M1):** Under the City of Oakridge zoning and land development ordinance No. 874, parcels zoned Mixed Use allow residential uses.

Note that several parcels outside of the Oakridge city limits but within the UGB have plan designations. For this analysis, the Urban Residential (U) plan designation was assumed to convert to Low-Density Residential (R1) and the Rural Residential designation was assumed to convert to a similarly low projected density used by the remaining zones.

All land that is located within the Oakridge UGB is included in the land base. For parcels that extended beyond the UGB, only the portion within the UGB is included in the land base. **Table 5** provides a summary of the residential land base by zone district.

**Table 5. Gross Acres in Residential Land Base, City of Oakridge UGB, 2022**

Plan Designation or Zone District	Gross Acres	Percent
Low-Density Residential (R1)	806.6	76%
Central Commercial (C2)	27.0	3%
Highway Commercial (C3)	129.3	12%
Mixed Use (M1)	19.5	2%
Urban Residential (U)	68.1	6%
Rural Residential (R)	16.8	2%
<b>TOTAL</b>	<b>1,067.3</b>	<b>100%</b>

## Westfir

The following zoning classifications, mapped in [Figure 1](#), are determined to allow residential uses in Westfir:

- **Community Residential (CR):** Under the City of Westfir Land Development Code, parcels zoned Community Residential allow one dwelling unit on a lot measuring at least 6,000 square feet. Permitted housing types include single family homes, manufactures homes, multi-family residences on lots measuring at least 10,000 square feet, and other residential care and home occupation types.
- **Low-Density Residential (R-1):** Under the City of Westfir Land Development Code, parcels zoned Low-Density Residential allow one dwelling unit on a lot measuring at least 8,000 square feet and require an average minimum lot size of 9,500 square feet after subdivision. Permitted housing types include single family homes, manufactures homes, duplexes as a conditional use, and other residential care and home occupation types.
- **High-Density Residential (R-3):** Under the City of Westfir Land Development Code, parcels zoned High-Density Residential allow one dwelling unit on a lot measuring at least 8,000 square feet, five dwelling units per lot measuring a minimum of 8,000 square feet for duplexes and triplexes, and 10 dwelling units per lot measuring a

minimum of 17,500 square feet. Permitted housing types include single family homes, manufactures homes, multi-family, and other residential care and home occupation types.

- **Mixed Use (MU):** Under the City of Westfir Land Development Code, parcels zoned High-Density Residential allow one dwelling unit on a lot measuring at least 8,000 square feet and require an average minimum lot size of 9,500 square feet after subdivision. For multi-family use, a maximum of six dwelling units per acres for multi-family use is allowed. Permitted housing types include single family homes, multi-family, and other residential care and home occupation types.

Note that several parcels outside of the Westfir city limits but within the UGB have a plan designation of R; however, these parcels did not yield buildable land according to this analysis.

All land that is located within the Westfir UGB is included in the land base. For parcels that extended beyond the UGB, only the portion within the UGB is included in the land base. **Table 6** provides a summary of the residential land base by zone district.

**Table 6. Gross Acres in Residential Land Base, City of Westfir UGB, 2022**

Plan Designation or Zone District	Gross Acres	Percent
Community Residential (CR)	84.4	62%
Low-Density Residential (R-1)	28.1	21%
High-Density Residential (R-3)	4.8	3%
Mixed Use (MU)	19.6	14%
<b>TOTAL</b>	<b>136.9</b>	<b>100%</b>

## 2. Land Classification

The second step in the BLI analysis involves identifying which parcels from the residential land base are available or unavailable for residential development. This involves classifying each parcel into their respective development status categories using criteria available through assessor data and undergoing a visual quality control process using aerial imagery. Once classified, all lands unavailable for development are removed from the residential land base.

Land classifications, mapped in [Figure 2](#), were validated using aerial photos, building permit data, and assessor records. Definitions of development status categories and criteria used to classify lands are listed below:

Lands available for development:

- **Vacant land.** Parcels with no structures or with very low improvement values (less than \$10,000) are considered vacant.

- **Partially vacant land.** Parcels larger than a 1/2 acre that are occupied by a use (e.g., a home or building structure with an improvement value over \$10,000) but have enough land to be subdivided without the need for rezoning. Criteria used for identifying partially vacant land are defined under the safe harbor method established in the [OAR 660-008-0005 \(2.b.B\) state statute](#) for cities with populations below 25,000.

Lands unavailable for development:

- **Undevelopable land.** Parcels that are not developable because they measure less than 3,000 square feet and therefore are likely too small for residential development.
- **Public or exempt land.** Parcels unlikely to be developed because they are restricted by existing public uses or they are considered exempt from residential development. These types of land typically include public parks, schools, ballfields, conservation easements, roads, and public right-of-way (ROW), common areas held by Homeowners Associations, cemeteries, and power substations.
- **Developed land.** Parcels unlikely to yield additional residential development because they possess existing building structures at densities that are unlikely to redevelop over the planning period of 2022-2040. Parcels are considered developed if they do not fall within any of the above development status categories.

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### 3. Environmental Constraints

The third step in the BLI analysis involves removing environmental constraints from residential land available for development determined in the previous steps. Land is considered “suitable and available” unless it is severely constrained by natural hazards listed below:

- Land within floodways and flood zones. This includes all lands within the 100-year floodplain area.
- Land with slopes greater than 25%.
- Land within wetlands. This includes areas identified as significant wetlands by the County.

#### Oakridge

[Figure 3](#) maps all above environmental constraints in Oakridge’s UGB. [Table 7](#) provides a summary of constrained land by zone district in the residential land base, showing that 23% of the gross acres in the residential land base are constrained and removed from the buildable lands inventory.

**Table 7. Constrained Acres in Residential Land Base, City of Oakridge UGB, 2022**

Plan Designation or Zone District	Gross Acres	Constrained Acres	Percent Constrained
Low-Density Residential (R1)	806.6	229.0	28%
Central Commercial (C2)	27.0	2.0	7%
Highway Commercial (C3)	129.3	1.9	1%
Mixed Use (M1)	19.5	1.2	6%
Urban Residential (U)	68.1	7.2	11%
Rural Residential (R)	16.8	3.6	21%
<b>TOTAL</b>	<b>1,067.3</b>	<b>244.9</b>	<b>23%</b>

## Westfir

[Figure 3](#) maps all the previously mentioned environmental constraints in Westfir’s UGB. [Table 8](#) provides a summary of constrained land by zone district in the residential land base, showing that 40% of the gross acres in the residential land base are constrained and removed from the buildable lands inventory.

**Table 8. Constrained Acres in Residential Land Base, City of Westfir UGB, 2022**

Plan Designation or Zone District	Gross Acres	Constrained Acres	Percent Constrained
Community Residential (CR)	84.4	40.5	48%
Low-Density Residential (R-1)	28.1	12.2	43%
High-Density Residential (R-3)	4.8	1.3	27%
Mixed Use (MU)	19.6	0.9	5%
<b>TOTAL</b>	<b>133.8</b>	<b>54.9</b>	<b>40%</b>

## 4. Housing Density Assumptions

### Oakridge

The final step to the BLI analysis is applying projected housing densities to Oakridge’s buildable lands to estimate Oakridge’s total housing capacity, summarized in [Table 2](#).

Projected housing densities were estimated using the average densities calculated from the allowable units and the minimum lot sizes for each zone permitting residential uses in the zoning and land development ordinance No. 874. Projected densities assume that 25% of total buildable acres are set aside for public facilities, such as roads and utility infrastructure.

For commercial and mixed-use zones, residential uses were assumed to comprise only 25% of the buildable area and thus the projected density was adjusted accordingly. This assumption is based on historical patterns of residential development in commercial zones. Additionally, we do not assume that a higher share of the commercial land is available for residential uses because that would negate the intent of the zone to be primarily a commercial zone.

For this analysis, the Urban Residential (U) plan designation was assumed to convert to the Low-Density Residential (R1) zone and projected to develop at a density of 5.2 units per net buildable acre. This density assumes that the zone builds out at 80% of the maximum density allowed (5,000 square foot lots). The Rural Residential (R) plan designation was assumed to develop at a similar density as other lower density zone district, 2.1 units per acre.

## **Westfir**

The final step to the BLI analysis is applying projected housing densities to Westfir's buildable lands to estimate Westfir's total housing capacity, summarized in [Table 4](#).

Projected housing densities were estimated using the average densities calculated from the allowable units and the minimum lot sizes for each zone permitting residential uses in the Land Development Code. Projected densities assume that 25% of total buildable acres are set aside for public facilities, such as roads and utility infrastructure. For commercial and mixed-use zones, residential uses were assumed to comprise only 25% of the buildable area when the projected density was adjusted accordingly.