

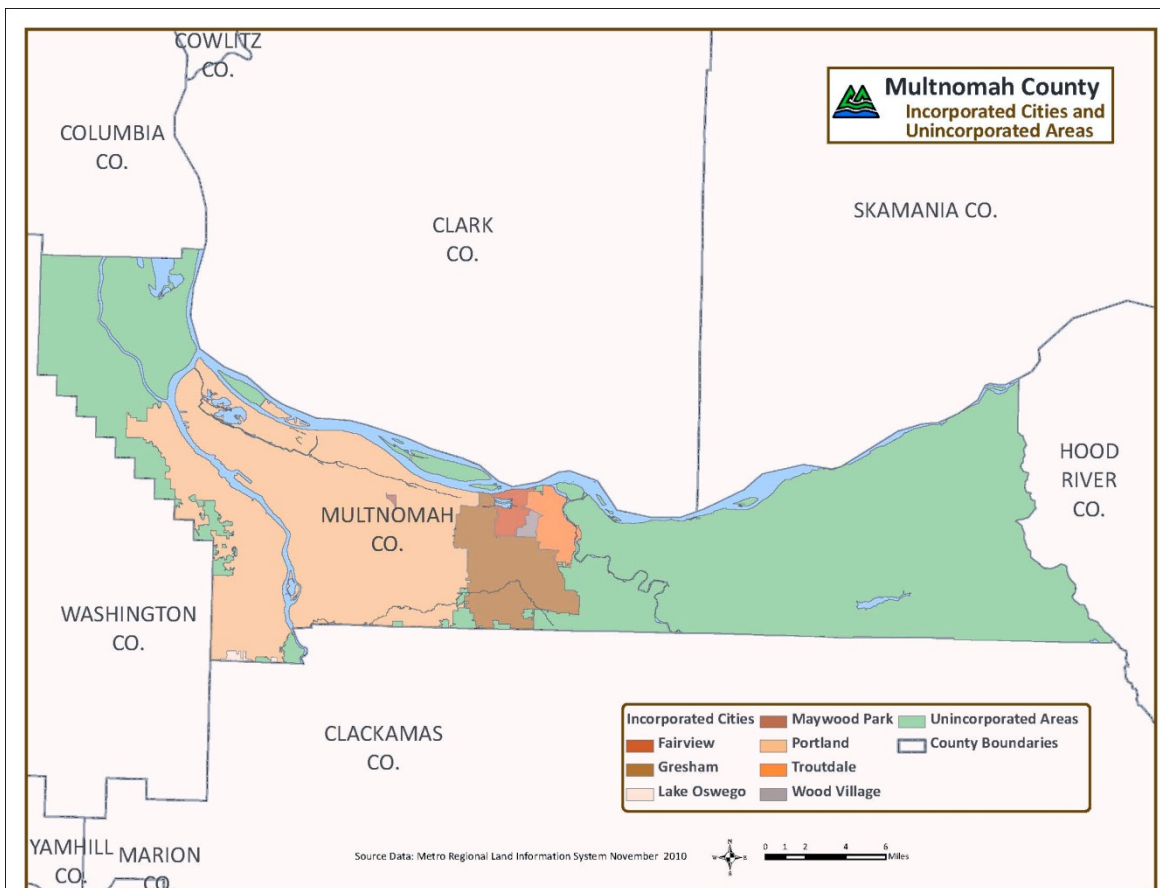
2.0 COMMUNITY PROFILE: MULTNOMAH COUNTY

2.1 Overview

Multnomah County was created on December 24, 1854 from the eastern part of Washington County and the northern part of Clackamas County. Multnomah County is bordered by Columbia County and the Columbia River on the north, Hood River County on the east, Clackamas County on the south, and Washington County on the west. Multnomah County is the smallest county in Oregon, with a total area of 466 square miles.

Multnomah County contains six incorporated cities (Portland, Gresham, Maywood Park, Fairview, Wood Village and Troutdale) and part of a seventh city, Lake Oswego which is predominantly in Clackamas County. The county also contains large unincorporated areas in the northwest and eastern parts of the county. The following figure shows the cities and the unincorporated portions of the county which are divided into Rural Plan areas.

Figure 2.1
Multnomah County Incorporated Cities and Unincorporated Areas



2.2 Geology, Geography and Climate

Multnomah County is located in a geologically active area. There are several active earthquake faults within the county and many other faults near the county, including the Cascadia Subduction Zone. The county is also close to active volcanoes, including Mount Hood in Clackamas County. Earthquake and volcanic hazards are addressed in Chapters 6 and 11 of this plan.

The topography of Multnomah County varies from flat to gently hilly terrain along the Willamette River and along the lower reaches of the Columbia River, to hilly in the west Portland Hills. Much of eastern Multnomah County from the Sandy River watershed eastward is hilly to mountainous. The highest location in Multnomah County is Buck's Peak with an elevation of 4,751 feet.

The two major rivers in Multnomah County are the Columbia River which forms much of the northern boundary of the county and the Willamette River which runs through Portland. The Sandy River, a tributary of the Columbia is another significant river in the county. There are FEMA-mapped floodplains along these three rivers as well as along many smaller streams.

Multnomah County has several small lakes, including Sturgeon, Bybee and Smith Lakes which are remnants of old channels of the Columbia River.

Temperatures and precipitation vary significantly within the county, depending on elevation. Average annual precipitation ranges from about 40 inches in the vicinity of the Portland Airport to about 70 inches in parts of the west hills to about 150 inches at high elevations in eastern Multnomah County. The data below are for the weather station at the Portland Airport.

The climate for Multnomah County is moderate. Mean daily temperatures range from highs of about 81° and lows of about 54° in July and August to highs of about 45° and lows of about 34° in December and January. The average annual precipitation is about 40". Average monthly precipitation varies from about 6 to 7 inches in November through January to about 0.75 inches in July. Average annual snowfall is about 5 inches, although many years have had no measurable snowfall.

Table 2.1
Multnomah County Precipitation Data

Location	Average Annual Precipitation (inches)	Lowest Annual Precipitation (inches)	Highest Annual Precipitation (inches)	Period of Record
Portland Airport	36.84	22.48 (1985)	63.20 (1996)	1941-2010

Western Regional Climate Center website:

www.wrcc.dri.edu

Table 2.2
Multnomah County Snowfall Data

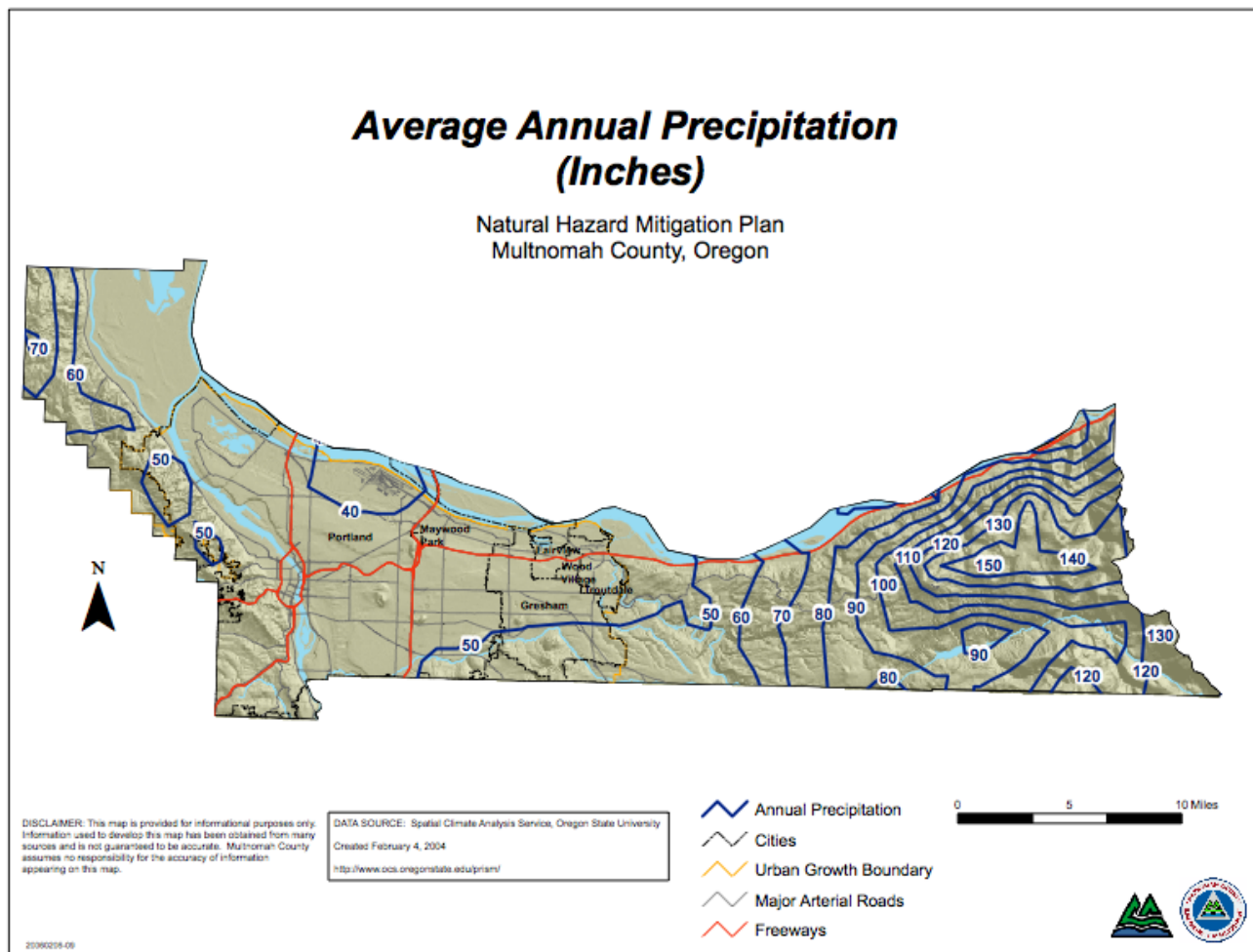
Location	Average Annual Snowfall (inches)	Lowest Annual Snowfall (inches)	Highest Annual Snowfall (inches)	Period of Record
Portland Airport	2.80	0.00 (many years)	34.0 (1968-1969)	1941-2010

Western Regional Climate Center website:

www.wrcc.dri.edu

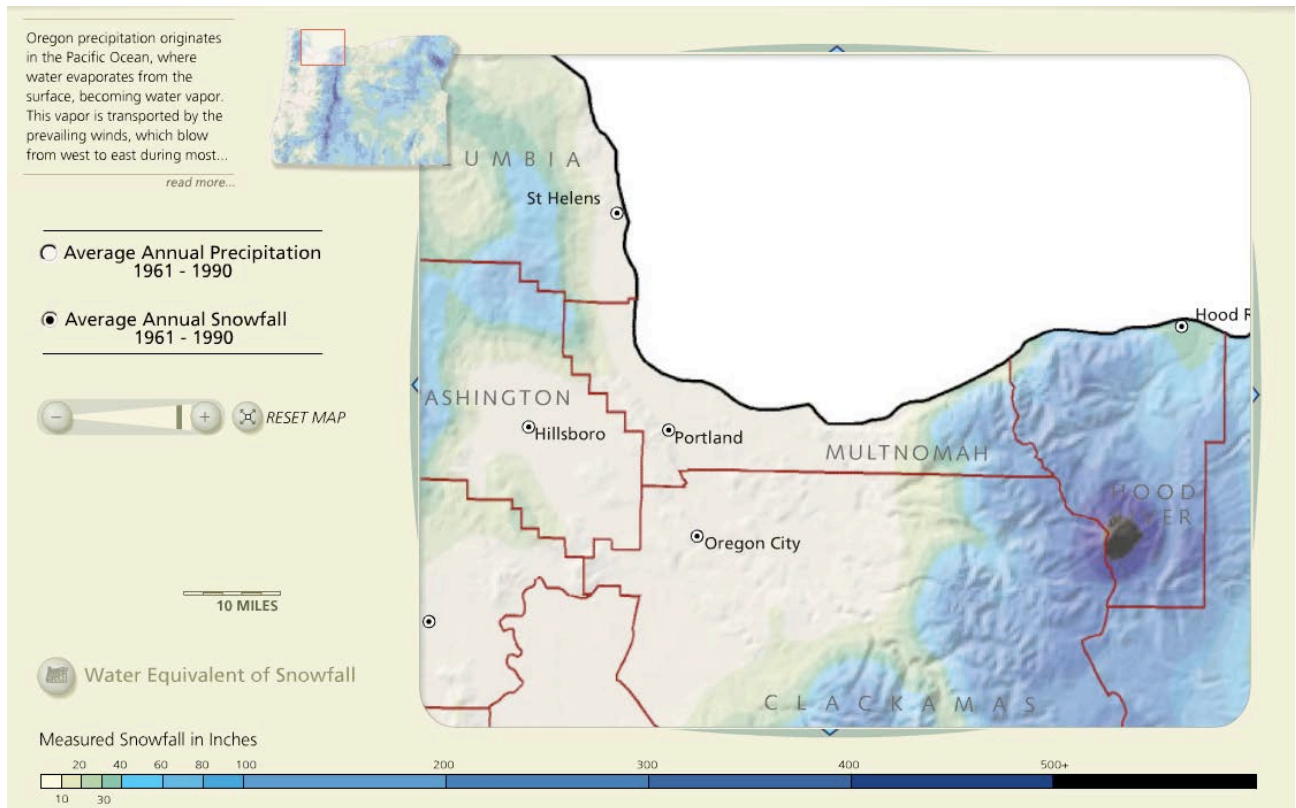
Multnomah County's climate and precipitation amounts vary significantly with elevation within the county. Higher elevations have lower temperatures and substantially higher precipitation.

Figure 2.2
Multnomah County Precipitation Patterns



As shown above, precipitation is significantly higher in the west Portland Hills and much higher in the high elevation areas in eastern Multnomah County than in the lower elevation areas within the Willamette and Columbia River valleys.

Figure 2.3
Multnomah County Snowfall Patterns



Atlas of Oregon CD ROM, 2002, University of Oregon Press.

As shown above, snowfall is significantly higher in the west Portland Hills and much higher in the high elevation areas in eastern Multnomah County than in the lower elevation areas within the Willamette and Columbia River valleys.

2.3 Population and Demographics

U.S. Census population data for Multnomah County for 1990, 2000 and 2010 are summarized in Table 2.3.

Table 2.3
Multnomah County Population Data

Entity	Population		
	2010	2000	1990
Multnomah County	735,334	660,486	583,887
Incorporated	721,211	644,439	521,224
Unincorporated	14,123	16,047	62,663
Fairview	8,920	7,561	2,391
Gresham	105,594	90,205	68,235
Lake Oswego ¹	2,329	2,274	2,253
Maywood Park	752	777	781
Portland ²	583,776	526,986	436,898
Troutdale	15,962	13,776	7,852
Wood Village	3,878	2,860	2,814
¹ Only the part of Lake Oswego in Multnomah County			
² A small part of Portland, with about 800 people, is in Clackamas County			

The population of Multnomah County has grown substantially over the past two decades. However, the population of the unincorporated area has dropped markedly, about 75%, over this time period. This population loss in the unincorporated area is predominantly due to annexation of formerly unincorporated areas by the cities in the county, rather than because of migration.

Selected demographic data for Multnomah County from the US Census Bureau are shown in Table 2.4. The age and ethnicity categories in Table 2.4 intentionally include overlapping subsets for planning purposes.

For emergency planning purposes, children, elderly adults, the disabled, people whose primary language is not English and low income residents are often considered special needs population groups. The numbers of people in these groups may also be a factor in mitigation planning, including community participation efforts and in developing and prioritizing mitigation goals, objectives and action items.

Table 2.4
Multnomah County Demographic Characteristics
U.S. Census Bureau, American Community Survey, 1-Year Estimate, 2010

Demographic Data		
Age		
	Under 5 years	6.3%
	Under 18 years	20.5%
	18 years and over	79.5%
	18 years to 65 years	68.9%
	65 years and over	10.6%
Population with Disability		
	Age: Under 18	4.0%
	Age: 21 to 64 years	17.3%
	Age: 65 years and older	40.5%
Ethnicity of Households		
	White	77.0%
	Black or African American	6.0%
	American Indian and Alaska Native	0.9%
	Asian	6.8%
	Native Hawaiian and Pacific Islander	50.0%
	Other or two or more races	7.8%
	Hispanic or Latino (of any race)	10.9%
Language Spoken at Home		
	English only	80.3%
	Language other than English	19.7%
	Speak English less than very well	9.2%
	Spanish	8.5%
	Other Indo-European languages	4.8%
	Asian and Pacific Island languages	5.8%
	Other languages	0.7%
Country of Birth		
	United States	85.8%
	Foreign-born	14.2%
	Naturalized citizen	41.0%
	Not a U.S. citizen	59.0%
Income and Poverty Data		
	Median family income	\$48,043
	Families with income below \$10,000	7.0%
	Families with income below \$25,000	18.9%
	Below poverty level	
	People	18.2%
	Families	13.6%
	Families with children	21.8%
	Children	25.4%
	People 65 years and older	17.2%

Multnomah County has a substantial population of children and elderly adults. As shown in Table 2.4 above, about 21% of the population is children less than 18

years old, while about 11% are adults over 65 years old. 4% of the children under 18 years old is classified as having a disability, as are about 17% of adults between 21 and 64 years old and about 41% of adults over 65 years old.

About 18% of the people, 14% of families, 22% of families with children, 25% of children and 17% of people over 65 years old are below the poverty level. 7% of families have incomes below \$10,000 and 19% of families have incomes below \$25,000.

About 20% of Multnomah County's residents speak a language other than English at home and 9% speak English less than very well. The people speaking a language other than English at home include: 8.5% who speak Spanish, 4.8% who speak other Indo-European languages and 6.5% who speak Asian, Pacific Island and other languages. About 14% of the population was born outside of the United States.

The US Census website (www.census.gov) has a vast amount of additional demographic data for Multnomah County which may be useful for planning purposes.

2.4 Housing

Selected housing data for Multnomah County from the U.S. Census Bureau are shown in Table 2.5.

The 2010 Census estimates for Multnomah indicate that about 54% of housing units are owner-occupied while 46% are owner-occupied. The overall vacancy rate was 7%. However, in 2010, given the housing crisis that has evolved over the last couple of years, including record number of foreclosures, the current vacancy rate and percentage of renter-occupied housing units may be somewhat higher than the 2010 Census estimates.

The proportion of owner- and renter-occupied housing units is significant for mitigation planning because mitigation actions for earthquakes or other hazards are predominantly undertaken by owners. The mitigation perspectives of owners for owner-occupied and renter-occupied housing units may differ.

The date of construction of housing units is also significant for mitigation planning because building codes for seismic and fire provisions have changed markedly over the decades. Less than 24% of Multnomah County's housing stock is post-1990 and thus built to recent codes with generally similar provisions to the current codes.

69% of the housing stock is pre-1980 and thus was built to codes with significantly different seismic and fire provisions than the current codes. Many pre-1940 single family and small multi-family housing units were built with cripple wall foundations

(short walls typically two or three feet high, between the foundation and the main floor of the home) or with sill plates that are not bolted to the foundations. Homes with these structural characteristics have substantially greater vulnerability to earthquake damage than later structural types.

Relatively few of these pre-1940 homes have subsequently been voluntarily retrofitted to mitigate these seismic deficiencies. However, the majority such homes have not yet been retrofitted. Heavy damage to these structures in an earthquake would result in high levels of damages and casualties as well as very high demand for temporary housing.

Table 2.5
Multnomah County Housing Data
U.S. Census Bureau, American Community Survey, 1-Year Estimate, 2010

Housing Data		
	Number	Percentage
Total Housing Units	324,927	100.0%
Occupied Housing Units	302,182	93.0%
Vacant Housing Units	22,745	7.0%
Owner-Occupied	164,019	54.3%
Renter-Occupied	138,041	45.7%
Housing Type		
Single Family, Detached	183,909	56.6%
Single Family, Attached	12,997	4.0%
Apartments (2 to 9 units)	49,064	15.1%
Apartments (10 or more units)	70,509	21.7%
Mobile Home	7,798	2.4%
Other - boat, RV, van etc.	325	0.1%
Year Structure Built		
2000 or later	39,316	12.1%
1990s	37,692	11.6%
1980s	24,370	7.5%
1970s	45,490	14.0%
1960s	32,493	10.0%
1950s	39,966	12.3%
1940s	24,045	7.4%
Before 1940	81,882	25.2%

2.5 Transportation

Multnomah County is served by an extensive network of interstate highways, state highways and local roads and streets. The major interstates include I-5 which runs north-south through the county and is the major route connecting Oregon with Washington and California. I-84 is the major route from Multnomah County eastward to Idaho, other Rocky Mountain States and to the central and eastern United States. I-205 is a bypass highway east of Portland that connects with I-5

south of Portland in Clackamas County and north of Portland in Washington State. I-405 is a short bypass highway off I-5 that connects to State Highway 26.

Major state highways in Multnomah County include Highway 26 which runs through the county, westward to the Oregon Coast and eastward to central and eastern Oregon. Highway 30 connects Multnomah County to Columbia County on the northwest and runs eastward generally parallel to I-84. Highway 99 runs north-south from I-5 near the Columbia River south to Clackamas County near Milwaukie. NW Cornelius Pass Road, which connects Highways 26 and 30 through the west Portland Hills, is also an important commuter route.

Multnomah County contains 504 bridges, including:

- 333 state highway bridges,
- 44 County highway bridges
- 126 municipal bridges, and
- 1 historic covered bridge.

Some of the bridges have vulnerabilities for earthquakes, floods and lahars. Evaluation of these bridges is important for both mitigation planning and emergency planning purposes.

Surface transportation in Multnomah County and adjacent counties also includes the MAX light rail lines, Westside Express Service commuter rail, and the extensive bus network operated by Tri-Met as well as the bus network operated by Interstate Bus.

Passenger rail service to/from Portland is operated by Amtrak which operates three routes through Portland:

- Amtrak Cascades between Vancouver BC and Eugene,
- Coast Starlight between Seattle, Portland and Los Angeles, and
- Empire Builder between Portland and Chicago.

Freight rail service in Multnomah County is provided by two long-haul railroads: BNSF and Union Pacific. BNSF provides service north to Seattle, south to California and east via Spokane. UP provides service south to California and east via Boise. In addition there are two short line railroads serving Multnomah County. Portland & Western provides service from Astoria to Portland and the Portland Terminal Railroad provides connections from Portland's marine terminals to other carriers.

Marine and air transport to/from Multnomah County is provided by facilities operated by the Port of Portland. The Port operates four marine terminals (one on the Columbia River and three on the Willamette River near the confluence with the Columbia River, which provide service via ocean-going ships and barges. The

Port also operates the Portland International Airport (PDX), the main commercial airport for northwest Oregon and vicinity. The Port also operates three much smaller commercial airports, including Troutdale Airport in Multnomah County, Hillsboro Airport in Washington County and Mulino Airport in Clackamas County. The Port also owns and operates the dredge “Oregon” to help maintain the shipping channel on the lower Columbia River. The Port oversees five industrial/business parks and is the Portland area’s largest owner of industrial land.

2.6 Land Use and Development

2.6.1 Overview

The overall pattern of land use and development in Multnomah County varies from the large urban areas, Portland and Gresham to the smaller incorporated cities of Maywood Park, Fairview, Wood Village, Troutdale and Lake Oswego (a small part of which is in Multnomah County).

The unincorporated parts of Multnomah County cover about half of the county by area, but only contain about 2% of the county’s population. The unincorporated areas range from lightly developed areas in or near the urban growth boundaries of the cities, to very small unincorporated communities in rural areas and rural areas with farms or isolated homes.

The areas within incorporated cities’ urban growth boundaries and the rural areas outside of the urban growth boundaries are shown below in Figure 2.4. Zoning for Multnomah County is shown in Figures 2.5 and 2.6 on the following pages.

Figure 2.4
Multnomah County Planning Areas



Figure 2.5
Zoning: Western Multnomah County

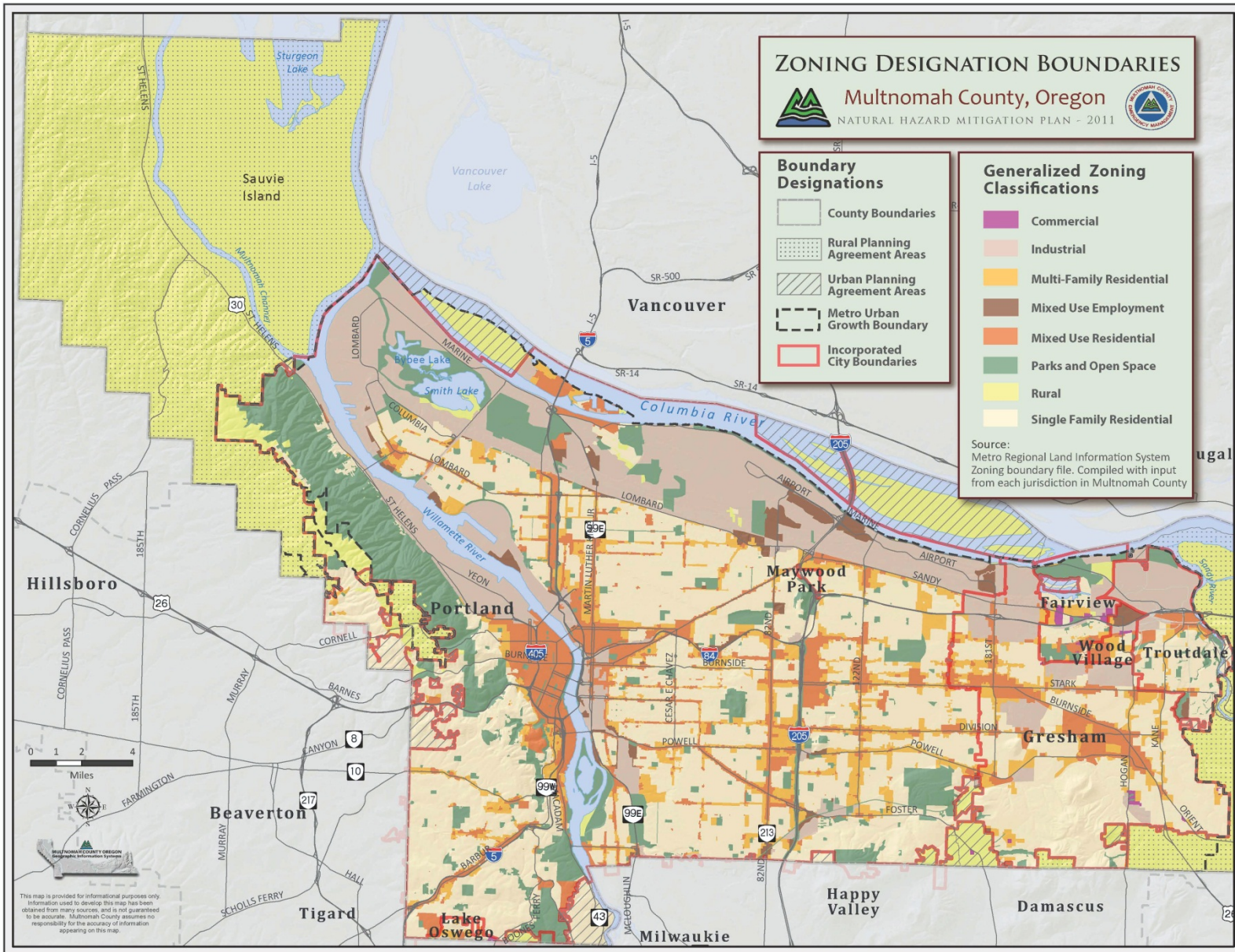
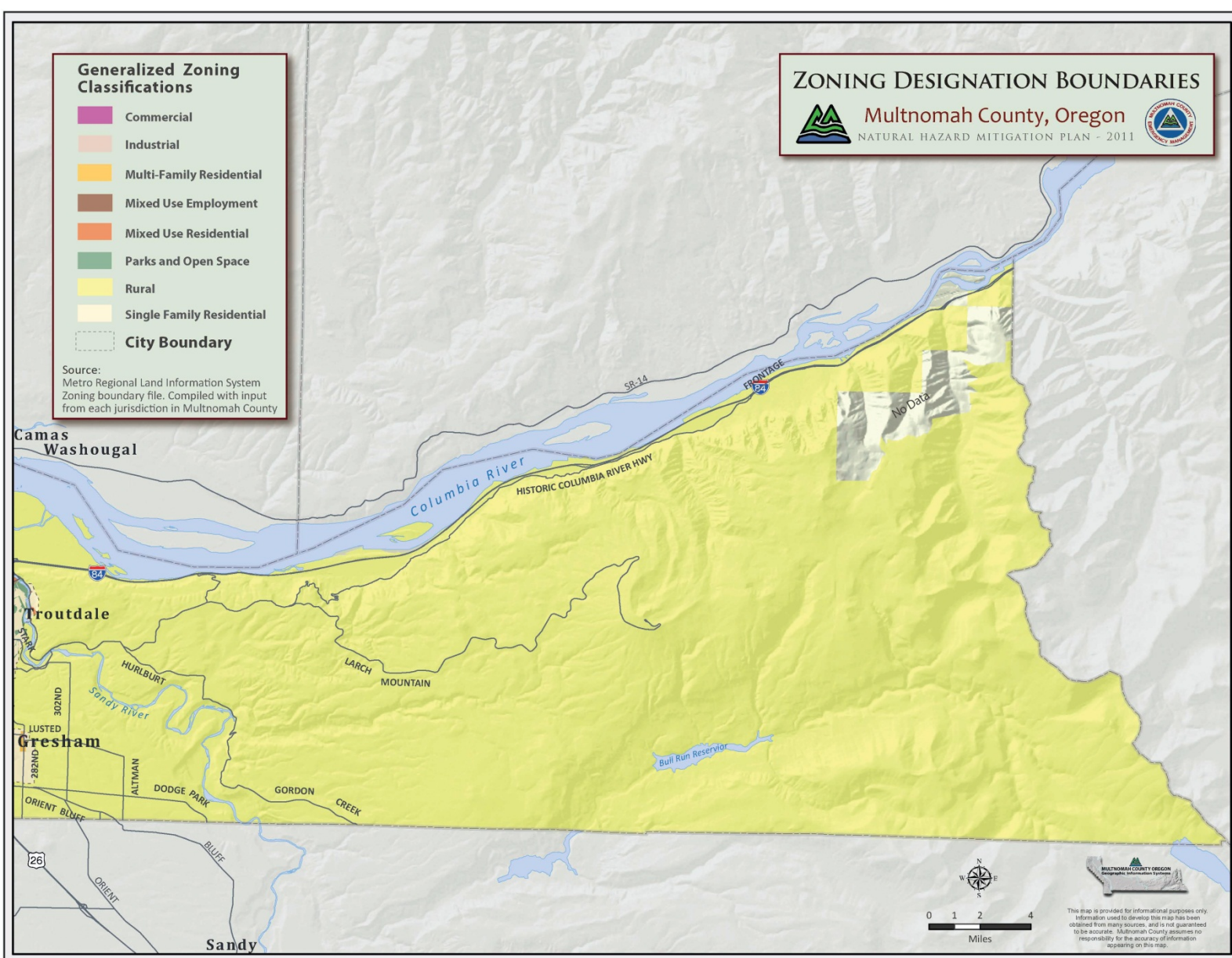
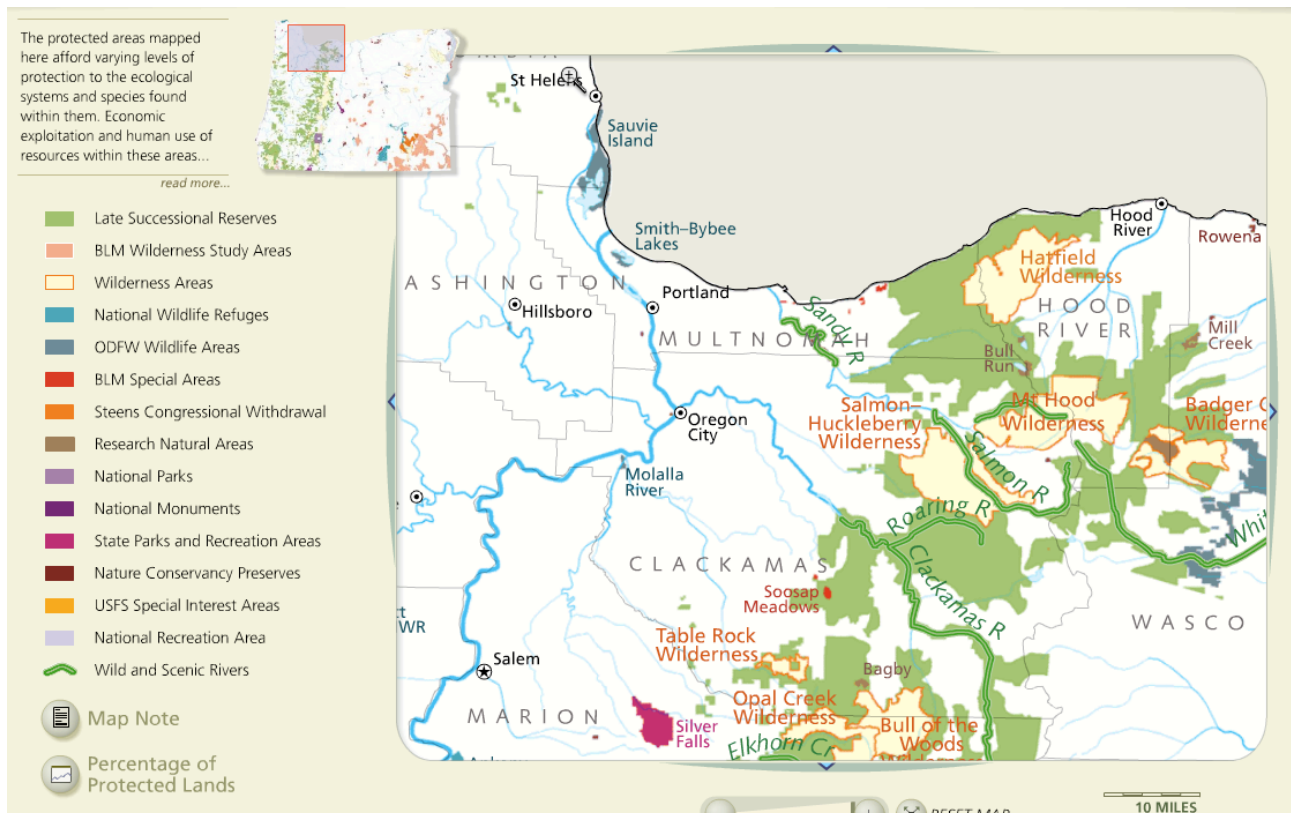


Figure 2.6
Zoning: Eastern Multnomah County



Eastern Multnomah County includes large forested areas which include both privately owned lands and National Forest lands as well as the Columbia River Gorge National Scenic Area. Protected areas in and near Multnomah County are shown in Figure 2.5.

Figure 2.5
Protected Areas



2.6.2 Development Trends Since 2006

Under Oregon's system of land-use management new development happens almost exclusively within the urban growth boundaries of the state's jurisdictions. This policy assures that new development will have access to urban services including sewer, water, roads, electricity and emergency services. Rural lots outside of the urban growth boundaries are typically large and not zoned for new development. Thus, the supply of developable land outside of the urban growth boundary is very limited.

The majority of the development in Multnomah County occurs within the Urban Growth Boundary and is nearly all subject to hazard mitigation plans of jurisdictions other than Multnomah County. Development in rural Multnomah County is limited by the county large minimum parcel size regulations intended to maintain those areas as sparsely settled farm, forest, and rural residential areas.

Land Use permit records contain twelve permits on parcels that have flood protection designations between 2007 and 2011. One of those permits was for a new dwelling. The other projects were replacement of existing structures, including the Interstate 84 bridges over the Sandy River, or bank stability/habitat projects.

2.6.3 Future Development Trends

Perhaps the best indicator of future development trends in rural Multnomah County can be found by considering the number of new land parcels expected. This is a useful measure because rural zoning allows just one dwelling on a lot. Data collected by the county land use planning division found 33 lots were created, 15 of which constituted a net increase of parcels, in the ten years from 1999 to 2009. This stable land supply indicates that very low levels of new development are expected in unincorporated areas of Multnomah County within the foreseeable future.