

REGION 3

Mid/Southern Willamette Valley¹

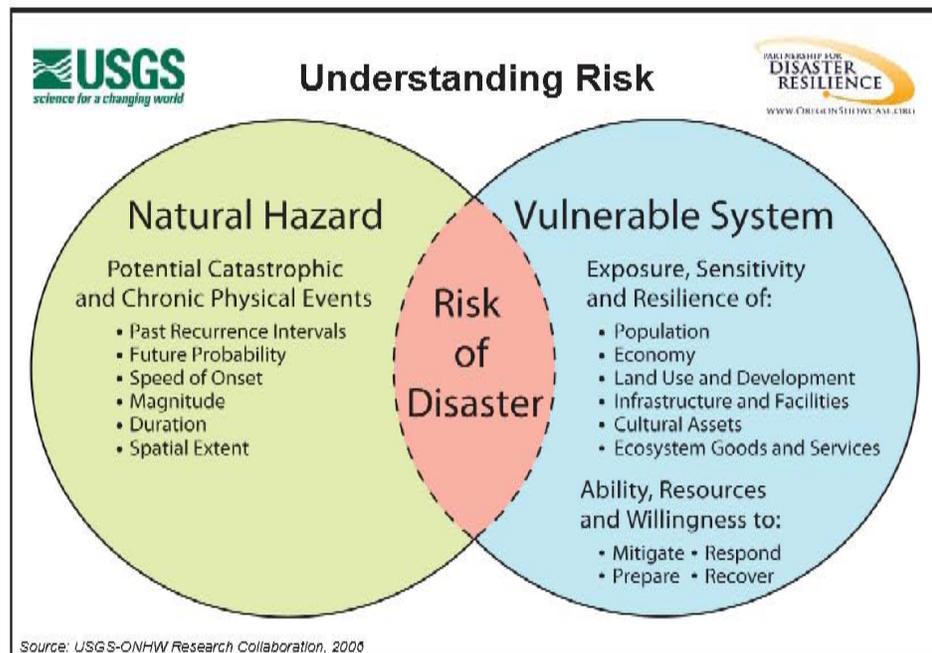
Regional Profile

¹ Benton, Lane, Linn, Marion, Polk, and Yamhill counties

Introduction and Purpose

Oregon faces a number of natural hazards with the potential to cause loss of life, injuries and substantial property damage. A natural disaster occurs when a natural hazard event interacts with a vulnerable human system. The following quote and graphic summaries the difference between natural hazards and natural disasters:

Natural disasters occur as a predictable interaction among three broad systems: natural environment (e.g., climate, rivers systems, geology, forest ecosystems, etc.), the built environment (e.g., cities, buildings, roads, utilities, etc.), and societal systems (cultural institutions, community organization, business climate, service provision, etc.). A natural disaster occurs when a hazard impacts the built environment or societal systems and creates adverse conditions within a community. ¹



It is not always possible to predict exactly when a natural disaster will occur or the extent to which they may impact the community. However, communities can minimize losses from disaster events through deliberate planning and mitigation. A report submitted to Congress by the National Institute of Building Science's Multi-hazard Mitigation Council (MMC) highlights that for every dollar spent on mitigation society can expect an average savings of \$4.00²

How to use this Report

The Partnership for Disaster Resilience (Partnership) at the University of Oregon's Community Service Center developed this report as part of a regional planning initiative funded by the Pre-Disaster Mitigation Grant Program. In addition to serving as a regional resource for local planning initiatives, this also serves as the regional profile for the State's Enhanced Natural Hazard Mitigation Plan. This report is intended to be used as a planning process document by communities developing local natural hazard mitigation plans. This regional report should be reviewed and updated by locals using the best available local data as the local plans serve as the foundation for the State Plan.

The information in this report should be paired with local data to identify issues for which mitigation action items can be developed. The report can be used in conjunction with assistance from *Partnership* staff to develop and document community specific action items. For more information on *The Partnership* or the training series see: www.oregonshowcase.org.

Regional Overview

The Mid/Southern Willamette Valley region (Region 3 as identified in the State's Natural Hazard Mitigation Plan) includes Benton, Lane, Linn, Marion, Polk and Yamhill Counties. This region is at relatively high risk from floods, winter storms, landslides & fires. It also has an identified level of risk for earthquakes and volcanic ash fall.

Organization of Report

This report includes four main sections that work together to develop a comprehensive picture of the region and its sensitivity to natural hazards.

Regional Maps

CRITICAL INFRASTRUCTURE MAP

Using 2011 data from several agencies and online resources, this map shows the approximate location of critical infrastructure, including schools, hospitals, bridges, dams, and power stations. Knowing the location of critical infrastructure is important when determining the sensitivities of the region.

COUNTY HAZARD RISK ANALYSIS MAPS

These maps depict the county's perceived risk for each natural hazard. Data for these maps comes from the County Hazard Risk Analysis in which each county develops risk scores for Oregon's major natural hazards. Scores are current as of September 2002.

Regional Profile and Sensitivity Analysis

Using the best available data, the regional profile includes a *Geographic Profile*, which provides a physical description of the region, a *Demographic Profile* that discusses the population in the Mid/Southern Willamette Valley region, an *Infrastructure Profile* that addresses the region's critical facilities and systems of transportation and power transmission, and an *Economic Profile* that discusses the scale and scope of the regional economy with a focus on key industries. In

addition to describing characteristics and trends, each profile section identifies the traits that indicate the region's sensitivity to natural hazards.

The data sources used in this section are all publicly available. This report examines the Mid/Southern Willamette Valley region as a whole and by individual counties when possible.

Regional Hazards Assessment

The regional natural hazard risk assessment section describes historical impacts, general location, extent, and severity of past natural hazard events as well as the probability for future events. This information is aggregated at the regional level and provides counties with a baseline understanding of past and potential natural hazards.

These assessments were based on best available data from various state agencies related to historical events, repetitive losses, county hazard analysis rankings, and general development trends. The risk assessment was written in 2003 as part of the State Natural Hazard Mitigation Plan and updated as part of the 2012 state plan update.

REGIONAL STATE FACILITIES TABLES

The state of Oregon has prepared an analysis of state owned and managed facilities. This analysis is a first step at assessing which state owned structures are most vulnerable to the various hazards identified by region. From this overview, it is clear that a more detailed assessment in the future will yield a clearer picture of those structures specifically threatened by certain disasters and the potential damage that may occur.

South/Central Willamette Region

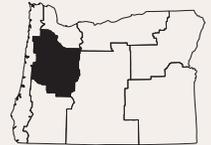
In 2010, the population of the region had increased 12% since 2000. This rapid growth rate is projected to continue over the next 20 years. Seventy-five percent of the region's population lives in incorporated areas, and 25% live in unincorporated areas. Twenty-five percent of the region's housing was built before 1960, 36% was built between 1960 and 1980, and 39% was built after 1980. Transportation networks are another important consideration in hazard mitigation. The impact of a disaster can disrupt automobile traffic and shut down local transit systems across the region and make evacuations difficult. The average commute for workers in the region is 24 minutes each way. Seventy-three percent of residents in this region drive alone to work, 12% carpool, and 2% use public transportation. Most bridges in the area have not been seismically retrofitted, creating significant risk to the commuting population in areas at risk from earthquakes.

REGION FACTS

Population: 2010 Census
 Total1,043,897
 Rural258,156
 Urban.....785,741

Housing:

Single-Family68%
 Multi-Family23%
 Mobile Homes10%
 Boat, RV, Van, etc>1%

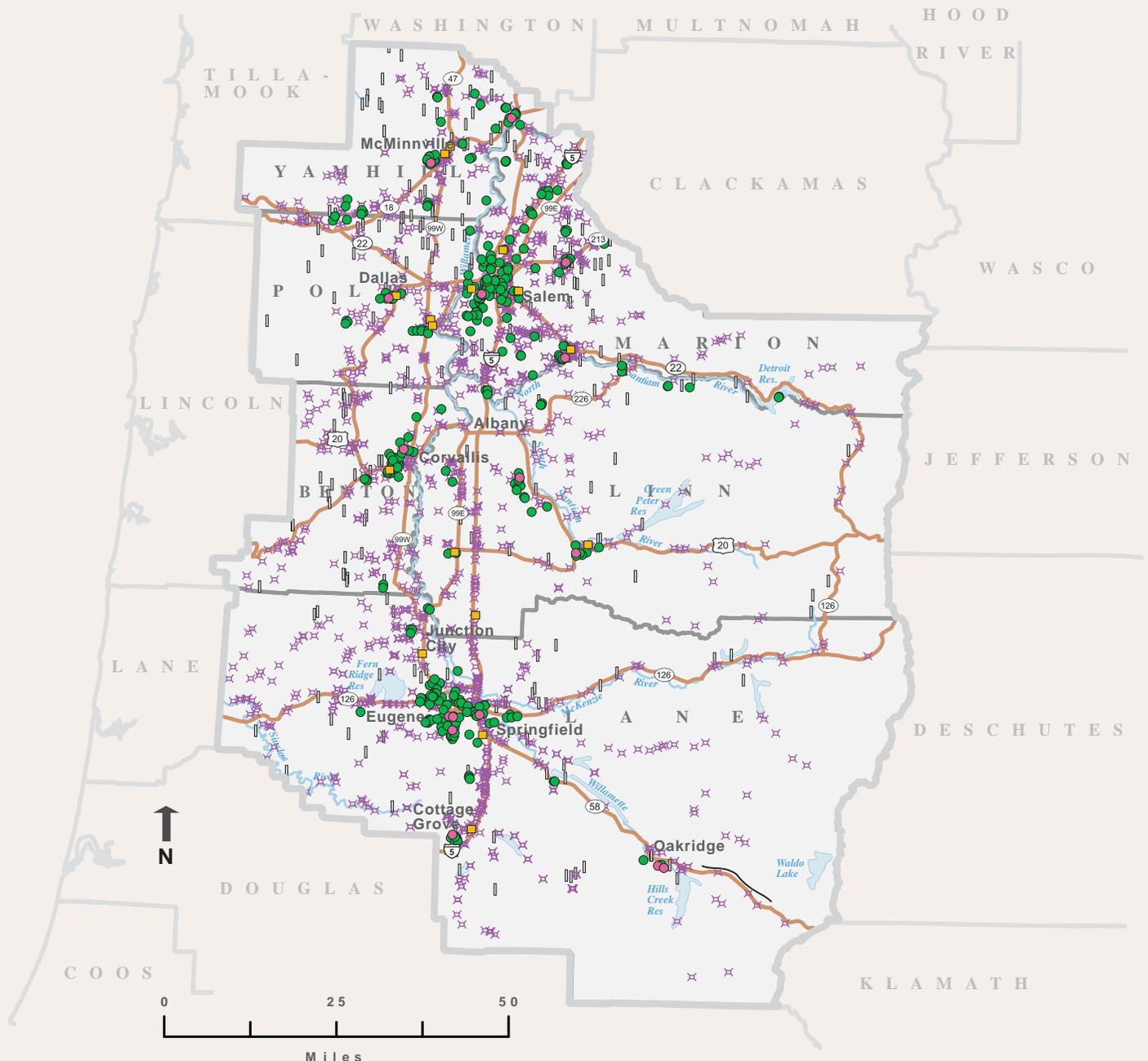


County	# of Hospitals	# of Hospital Beds	Police Stations	Fire & Rescue Stations	Power Plants	Dams* Bridges
Benton	1	165	3	7	0	1 214
Lane	4	650	9	23	2	13 791
Linn	2	90	4	7	1	7 492
Marion	3	540	16	19	0	2 350
Polk	1	6	4	5	0	1 155
Yamhill	2	128	9	10	1	1 131

* "High" Hazard Dams

Critical Infrastructure

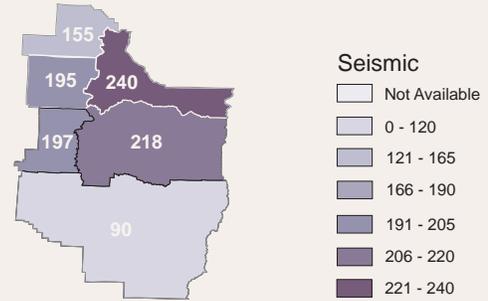
- School
- Hospital
- ✕ Bridge
- Power Substation
- ▬ Dam



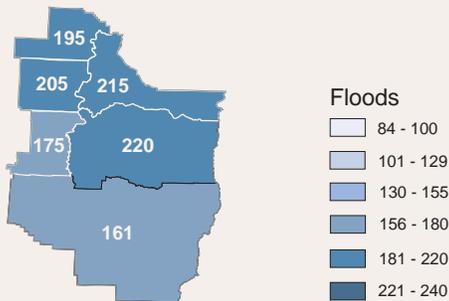
As part of the County Hazard Risk Analysis, each county develops risk scores for Oregon's major natural hazards. This score, ranging from 24 (low) to 240 (high), reflects the County's perceived risk for the particular hazard. Scores are current as of November 2008.

To obtain the most current scores, see <http://www.oregonshowcase.org> or contact Oregon Military Department – Office of Emergency Management <http://www.oregon.gov/OMD/OEM>.

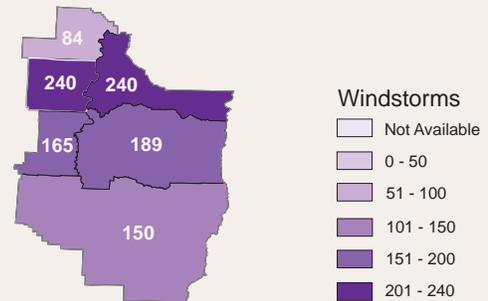
Seismic



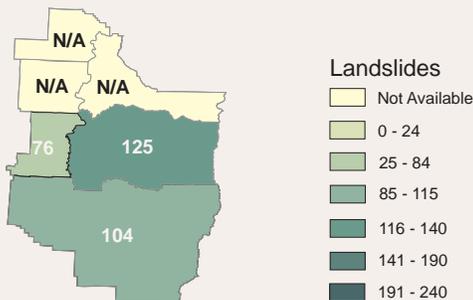
Floods



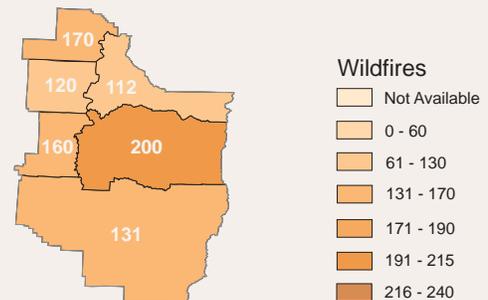
Windstorms



Landslides



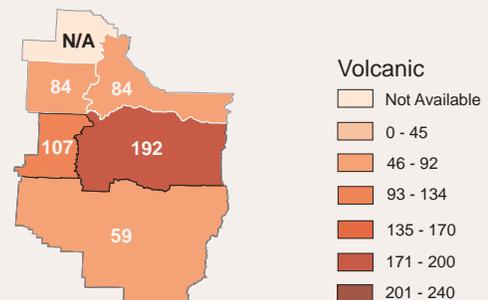
Wildfires



Drought



Volcanic



Regional Profile and Sensitivity Analysis

Section 1: Geography and Climate

The six-county area of the Mid/Southern Willamette region is approximately 10,163 square miles.³ The eastern side of the region begins in the foothills of the Cascades and extends westward through the Willamette Valley into the Coast Range. The region extends to the Oregon Coast in Lane County. In the south, the region begins at the base of the Calapooya Mountains and extends north through the middle third of the state. The original Oregon Trail settlers sought out the fertile soil and ample rainfall of the Willamette Valley for their homesteads. The region is still an agriculturally vital area. Annual rainfall in the region ranges from about 40 inches in the Valley to 140 inches at high points in the Coast Range.⁴

Section 2: Demographic profile

This section describes the Mid/Southern Willamette region in terms of its population, demographics and development trends. Data is followed by a discussion of characteristics that indicate community vulnerability to natural hazards. Identifying populations that are particularly vulnerable enables communities to design targeted strategies to reduce their risk. Reviewing development trends provides further guidance on how communities can accommodate growth in a manner that increases resilience to natural hazards.

POPULATION AND DEMOGRAPHICS

In 2010, the population of the Mid/Southern Willamette region was 1,043,897, representing an increase of 11.6% since 2000. According to Portland State University population projections, the region will grow 20.5% by 2020, at an average annual growth rate of 1.3%.⁵ Growth is expected to occur most rapidly in Yamhill County. Table 1 displays the past population change in each Mid/Southern Willamette region county.

Table 1. Population Growth, Mid/Southern Willamette Region, 2000-2010

County	2000	2010	2000-2010	
	Population	Population	Population Change	% Change 2000-2010
Benton	78,153	85,579	7,426	9.5%
Lane	322,959	351,715	28,756	8.9%
Linn	103,069	116,672	13,603	13.2%
Marion	284,234	315,335	31,101	10.9%
Polk	62,380	75,403	13,023	20.9%
Yamhill	84,992	99,193	14,201	16.7%
Regional Total	935,787	1,043,897	108,110	11.6%

Sources: U.S. Census Bureau: 2000 Census Summary File 1. U.S. Census Bureau: 2010 Census Summary File 1.

According to Table 1 above, the largest growth has occurred in Polk and Yamhill Counties. This current growth pattern (both urban and rural) impacts how

agencies prepare for emergencies as changes in the population and development can increase risks associated with hazards.

Median household income can be used to compare economic areas as a whole, but does not reflect how the income is divided among area residents. Table 2 displays the median household income for the Mid/Southern Willamette region, which was \$47,266 in 2009. This is below the national average of \$51,425 and the state’s average of \$49,033. The 13.8% median household income growth between 2000 and 2009 in the region is less than the 19.8% state growth and the 22.5% national growth over the same time period.⁶

Table 2. Median Household Income, Mid/Southern Willamette Region, 2000 and 2009

County	2000	2009	% Change 2000-2009
Benton County	\$44,113	\$46,652	5.8%
Lane County	\$37,893	\$42,852	13.1%
Linn County	\$37,790	\$45,700	20.9%
Marion County	\$40,963	\$46,453	13.4%
Polk County	\$43,358	\$50,750	17.0%
Yamhill County	\$45,107	\$51,191	13.5%
Regional Average	\$41,537	\$47,266	13.8%

Source: U.S. Census Bureau. 2005-2009. American Community Survey – 5 year estimates.

The impact in terms of loss and the ability to recover varies among population groups following a disaster. Historically, 80% of the disaster burden falls on the public.⁷ Of this number, a disproportionate burden is placed upon special needs groups, particularly minorities, and the poor.

In 2009, 13.5% of the nation’s population was living in poverty, less than the Mid/Southern Willamette regional poverty level of 15.5% and the Oregon state poverty average of 13.6%.⁸ The Mid/Southern Willamette region’s greater median income and higher poverty rate indicate a wide range between the highest earning and lowest earning households in the region. Table 3 details the county and regional poverty rates in 2009.

Table 3. Poverty Rates, Mid/Southern Willamette Region, 2009

County	Total Population in Poverty		Children Under 18 in Poverty	
	#	%	#	%
Benton County	14,466	19.1%	1,955	12.5%
Lane County	54,248	16.2%	11,053	15.7%
Linn County	16,552	14.9%	5,619	20.4%
Marion County	46,085	15.4%	18,167	22.0%
Polk County	9,458	12.9%	3,042	17.2%
Yamhill County	11,696	12.9%	4,289	17.9%
Regional Average		15.5%		18.5%

Source: U.S. Census Bureau. 2005-2009. American Community Survey – 5 year estimates.

Low-income populations may require additional assistance following a disaster because they may not have the savings to withstand economic setbacks, and if work is interrupted, housing, food, and necessities become a greater burden. Additionally, low-income households are more reliant upon public transportation, public food assistance, public housing, and other public programs, all which can be impacted in the event of a natural disaster.

The age of the population is also an important consideration in hazard mitigation planning. In 2010, 33.0% of the regional population was under 14 or over 65 years of age.⁹ Table 4 provides a breakdown of the percentages of youth and elderly in the Mid/Southern Willamette Valley region counties.

Table 4. Mid/Southern Willamette Valley Region Youth and Senior Populations, 2010

County	0-14		65-74		75+	
	Number	%	Number	%	Number	%
Benton County	12,353	14.4%	5,384	6.3%	4,896	5.7%
Lane County	57,289	16.3%	28,358	8.1%	24,423	6.9%
Linn County	23,429	20.1%	9,948	8.5%	8,043	6.9%
Marion County	69,396	22.0%	21,380	6.8%	19,169	6.1%
Polk County	15,116	20.0%	5,879	7.8%	5,273	7.0%
Yamhill County	20,406	19.0%	6,957	7.0%	6,309	6.4%
Regional Total and Average %:	197,989	19.0%	77,906	7.5%	68,113	6.5%

Source: U.S. Census Bureau. 2010 Census.

The elderly individuals in the region may require special consideration due to increased sensitivities to heat and cold, possible reliance upon transportation for medications, and comparative difficulty in making home modifications that reduce risk to hazards.

Young people also represent a potentially vulnerable segment of the population. In the Mid/Southern Willamette region, approximately 19% of the population is within the 0-14 year age range. Special considerations should be given to young populations and schools, where children spend much of their time, during the natural hazard mitigation process. Children are more vulnerable to heat and cold,

have fewer transportation options, and require assistance to access medical facilities.

Special consideration should also be given to populations who do not speak English as their primary language. Non-English speaking populations can be harder to reach with preparedness and mitigation information materials. They are less likely to be prepared if special attention is not given to language and culturally appropriate outreach techniques. In the Mid/Southern Willamette region, most citizens speak English as their primary language. However, in every county in Oregon, Spanish is the second most prominent language. Table 5 shows the percentage of the individuals in the Mid/Southern Willamette region who speak English less than “very well”. On average, 6.3% of the total population in the Mid/Southern Willamette region speaks English less than “very well”.¹⁰

Table 5. Population over age 5 that Speaks English less than “Very Well”, Mid/Southern Willamette Region, 2009

County	% Population
Benton	3.4%
Lane	3.1%
Linn	2.4%
Marion	12.5%
Polk	4.8%
Yamhill	6.7%
Regional Average	6.3%

Source: US Census Bureau, 2005-2009 American Community Survey

The impact in terms of loss and the ability to recover may also vary among minority population groups following a disaster. In 2010, 15% of the region’s populations were minorities. Table 6 provides a breakdown of the percentages of minorities in the Mid/Southern Willamette region.

Table 6. Population by Race*, Mid/Southern Willamette Region, 2010

County	Hispanic/ Latino	Asian	African American	Native American
Benton	6.4%	5.2%	0.9%	0.7%
Lane	7.4%	2.4%	1.0%	1.2%
Linn	7.8%	1.0%	0.5%	1.3%
Marion	24.3%	1.9%	1.1%	1.6%
Polk	12.1%	1.9%	0.6%	2.1%
Yamhill	14.7%	1.5%	0.9%	1.5%

Source: U.S. Census Bureau, 2010 Census

*Racial data is not mutually exclusive or exhaustive, respondents may identify with more than one race including races not in this table.

HOUSING AND DEVELOPMENT

To accommodate rapid growth, communities engaged in mitigation planning should consider the vulnerability of the community’s housing stock and development patterns. Eliminating or limiting development in hazard prone areas, such as floodplains, can reduce vulnerability to hazards, and the potential loss of life and injury and property damage. Oregon has been successful in developing land use goals that incorporate mitigation while preserving rural and protected lands within urban growth areas. Communities in the process of developing land for housing and industry need to ensure that these goals are being met to prevent future risks.

The urban and rural growth pattern impacts how agencies prepare for emergencies as changes in development can increase risks associated with hazards. The Mid/Southern Willamette region is growing more urban, with a little over two percent population growth in incorporated areas between 2000 and 2010. Polk and Yamhill counties have urbanized more rapidly than the rest of the region.¹¹ Table 7 illustrates the trend in urban area population growth in the Mid/Southern Willamette counties between 2000 and 2010.

Table 7. Urban/Rural Populations, Mid/Southern Willamette Region, 2000-2010

County	% Incorporated Population		% Change
	2000	2010	2000-2010
Benton	76.1%	79.3%	3.2%
Lane	69.9%	74.2%	4.3%
Linn	65.1%	71.1%	6.0%
Marion	72.2%	73.0%	0.8%
Polk	72.4%	84.9%	12.5%
Yamhill	73.2%	80.8%	7.6%

Source: Portland State University Population Estimates, 2010

In addition to location, the character of the housing stock also affects the level of risk that communities face from natural hazards. Table 8 provides a breakdown by county of the various housing types available in 2009.¹² On average, mobile homes and other non-permanent housing structures account for 10% of the housing in the Mid/Southern Willamette Valley Region. These structures are particularly vulnerable to certain natural hazards, such as windstorms, and special attention should be given to securing these types of structures.

Table 8. County Housing Profile, Mid/Southern Willamette Region, 2009

County	Single-Family	Multi-Family	Mobile Homes	Boat, RV, Van, etc.
Benton	62.3%	31.5%	6.1%	Less than 1%
Lane*	67.3%	22.8%	9.5%	Less than 1%
Linn	69.6%	16.0%	14.1%	Less than 1%
Marion	66.2%	25.3%	8.4%	Less than 1%
Polk	73.9%	17.6%	8.0%	Less than 1%
Yamhill	70.1%	16.8%	12.6%	Less than 1%

Source: U.S. Census Bureau. 2005-2009. American Community Survey – 5 year estimates.

*These figures do not include the coastal areas.

Table 8 shows that the majority of the housing stock is in single-family homes and this trend is continuing with new construction. In 2010, an estimated 78% of new housing was single-family units.¹³ This trend suggests that hazard mitigation efforts should provide outreach and information that specifically addresses preparedness in detached housing units.

Aside from location and type of housing, the year housing structures were built has implications for community vulnerability. The older a home is, the greater the risk of damage from natural disaster. This is because structures built after the late 1960s in the Northwest and California used earthquake resistant designs and construction techniques. In addition, FEMA began assisting communities with floodplain mapping during the 1970s, and communities developed ordinances that required homes in the floodplain to be elevated to one foot over Base Flood Elevation. Knowing the age of a structure is helpful in targeting outreach regarding retrofitting and insurance for owners of older structures. Table 9 illustrates the percentage of homes built per county during certain periods of time.

Table 9. Housing-Year Built, Mid/Southern Willamette Region, 2010

County	Pre-1939 - 1959	1960-1979	1980 – 2010
Benton	24%	37%	39%
Lane*	22%	40%	35%
Linn	30%	33%	37%
Marion	23%	36%	41%
Polk	23%	31%	46%
Yamhill	22%	27%	51%

*These figures include the coastal areas. Source: U.S. Census Bureau. 2005-2009. American Community Survey – 5 year estimates.

Section 3: Infrastructure Profile

This section of the report describes the infrastructure that supports Mid/Southern Willamette region communities and economies. Transportation networks, systems for power transmission, and critical facilities such as hospitals and police stations are all vital to the functioning of the region. Due to the fundamental role that infrastructure plays both pre- and post-disaster it deserves special attention in the context of creating more resilient communities. The information that is provided in this section of the profile can provide the basis for informed decisions about how to reduce the region’s infrastructural vulnerabilities to natural hazards.

TRANSPORTATION

The highway system in the Mid/Southern Willamette region centers on Interstate 5 and the major east-west highways that intersect it. Recent population growth in the region has increased the number of vehicles on the roads. Many trips through the Mid/Southern Willamette region originate outside the region in the Portland Metropolitan Area. Portland drivers commonly enter the region to reach Salem, The Spirit Mountain Casino, and coastal destinations. A high percentage of workers driving alone to work can cause traffic congestion and accidents. The large increase of automobiles can place stress on roads, bridges and infrastructure within the city, and also in rural areas where there are fewer transit roads. Emergency events can disrupt automobile traffic and shut down local transit systems, making local and/or regional evacuations difficult. Hazards such as localized flooding and landslides can render roads unusable. Likewise, a severe winter storm has the potential to disrupt the daily driving routine of thousands of people.

According to U.S. Census, American Community Survey 2009 data, the average commute for workers in the Mid/Southern Willamette Region is 24 minutes each way. 85% of commuters travel by personal vehicle; 73% ride alone and 12% carpool. About 2% of commuters in the Mid/Southern Region use public transit.¹⁴ The area is serviced by 24 local transit agencies. The two largest transit agencies are Lane Transit District and Salem-Keizer Transit. Many of the smaller transit agencies exclusively provide on-call transit services to seniors in rural areas.

Roads and Bridges

The region's major expressway is Interstate 5 (I-5). I-5 runs north/south through the Willamette Valley and is the main passage for automobiles and trucks traveling from Mexico to Canada. Highway 99 runs parallel to I-5 and used to be the major route before the Interstate was built. Highway 99 continues to serve several business and rural districts and is a back-up route to I-5. Other state highways that service this region include:

- State Highway 22, which starts at the coast and intersects Highway 99 and I-5 on its way through the Cascade Mountains to eastern Oregon
- Highway 18 intersects with Highway 99 and connects Yamhill County with the coast
- US Route 20 connects Newport to Corvallis and points farther east;
- State Highway 126 connects Eugene/ Springfield to the coast.

Daily, transportation infrastructure capacity in the Mid/Southern Willamette region is stressed by maintenance, congestion, and oversized loads. Natural hazards can further disrupt automobile traffic and create gridlock that makes evacuations difficult.

The condition of bridges in the region is also a factor that affects risk from natural hazards. Most bridges are not seismically retrofitted, which is a particularly important issue for the Mid/Southern Willamette region because of its risk from earthquakes. Incapacitated bridges can disrupt traffic and exacerbate economic losses because of the inability of industries to transport services and products to clients. Table 10 shows the number of state, county, and city maintained bridges, and the number of historic covered bridges in the region. The bridges in the region are part of the state and interstate highway and maintained by the Oregon Department of Transportation.

Table 10. Bridge Inventory, Mid/Southern Willamette Region, 2011

County	State Highway Agency	County Highway Agency	City/Municipal Highway Agency	Historical Covered Bridges	Total
Benton	45	96	24	3	168
*Lane	285	417	67	18	787
Linn	143	304	37	8	492
Marion	138	141	69	2	350
Polk	52	88	13	2	155
Yamhill	41	90	0	0	131

These figures do not include coastal areas

Source: Oregon Department of Transportation, 2011

Railroads

Railroads are major providers of regional and national cargo and trade flows. Railroads that run through the Mid/Southern Willamette region primarily run in a north-south direction. The Union Pacific Railroad (UP) is the major freight railroad in the region. An AMTRAK passenger train also runs on the UP line. It runs north to Spokane and south to Southern California where the tracks turn east and continue to Texas.¹⁵ Other freight railroads in the region include the Central Oregon and Pacific, the Albany and Eastern, the Portland and Western, the Hampton Railway, the Willamette and Pacific, and the Willamette Valley Railway.

Sixteen million tons of goods produced in Oregon are shipped out of state by railroad per year. The goods include lumber and wood products, pulp and paper, and miscellaneous mixed shipments.¹⁶ Over 23 million tons of products originating in other states are annually shipped into Oregon by rail including wood, farm products, coal, and waste materials.¹⁷ More than 22 million tons of products are shipped through Oregon annually by rail. More than 6 million tons of these products include grains and soybeans transported from the Northern Midwest to Washington.¹⁸

Rails are sensitive to icing from the winter storms that can occur in the Mid/Southern Willamette region. For industries in the region that utilize rail transport, these disruptions in service can result in economic losses. As mentioned above, the potential for rail accidents caused by natural hazards can also have serious implications for the local communities if hazardous materials are involved.

Airports

The Mid/Southern Willamette region has one primary commercial service airport and seventeen general aviation public airports. There are also many private airfields and helipads. Table 11 shows the number and designation of the airports in the Northern Willamette region.

Table 11. Public and Private Airports, Mid/Southern Willamette Region, 2011

County	Commercial Service	General Aviation (Public)	General Aviation (Private)	Helipad (Private)
Benton		1	9	1
Lane	1	6	10	8
Linn		4	19	2
Marion		2	13	7
Polk		1	7	0
Yamhill		3	14	2
Total	1	17	72	20

Source: FAA Airport Master Record (Form 5010)¹⁹

Mahlon Sweet Field (EUG) in Eugene is the only commercial airport in the region. It is owned and operated by the City of Eugene and is the fifth-largest airport in the Pacific Northwest.

Flights face the potential for closure from a number of natural hazards that are common in the Mid/Southern Willamette region, including windstorms and winter storms. Airports have strict guidelines regarding when conditions are safe for flight.

CRITICAL FACILITIES

Critical facilities are those facilities that are essential to government response and recovery activities (e.g., police and fire stations, public hospitals, public schools). Critical facilities in the Mid/Southern Willamette region are displayed in Table 12 by county.

Table 12. Critical Facilities, Mid/Southern Willamette Region

County	# of Hospitals (Beds)	Police Station	Fire & Rescue	School Districts & Colleges
Benton	1 (165)	3	7	4 districts- 1 University 16 districts- 1 Com.
Lane	5 (578)	12	23	College-4 Universities 7 districts-1 Com.
Linn	2 (90)	4	9	College 10 districts- Com.
Marion	3 (540)	16	19	College- 4 Universities
Polk	1 (6)	4	5	4 districts-1 University
Yamhill	2 (128)	9	10	7 districts- 2 Universities

Sources: State Hospital Licensing Department, Local Sheriff Offices, Oregon State Fire Marshall, Oregon Department of Education. Table updated January 2012.

In addition to those listed in Table 13, there are other critical and essential facilities that are vital to the continued delivery of key governmental services or that may significantly impact the public’s ability to recover from emergencies. Some of these facilities, such as correctional institutions, public services buildings, law enforcement centers, courthouses, juvenile services buildings, public works facilities, and other public facilities should be detailed in local and regional mitigation plans.

POWER GENERATION AND TRANSMISSION

The Mid/Southern Willamette region is an important throughway for oil and gas pipelines and electricity transmission lines, connecting Oregon to California and Canada. The infrastructure associated with power generation and transmission plays a critical role in supporting the regional economy.

The majority of electrical power is generated hydroelectrically. The Detroit, Carmen-Smith, and Lookout Point dams generate the most power for the region. They are each capable of generating over 100MW.²⁰ There are also several power plants that use biomass as their energy source.

Dam failures can occur at any time and are quite common. Fortunately, most failures result in minor damage and pose little or no risk to life safety. However, the potential for severe damage and fatalities does exist, and the National Inventory of Dams (NID) has developed a listing of High Threat Potential Hazard dams for the nation. The state has developed a complementary inventory of dams in Oregon. Table 13 lists the dams included in these inventories.

Table 13. Power Plants and Dams, Mid/Southern Region

County	Power Plants	Dams	
		#	# High Threat
Benton	0	22	1
Lane	2-552 MW	56	13
Linn	1-93 MW	27	7
Marion	0	92	2
Polk	0	80	1
Yamhill	1-119 MW	89	1

Source: Oregon Department of Energy, National Inventory of Dams.²¹

The electric, oil, and gas lines that run through the Mid/Southern Willamette region are both municipally and privately owned. A network of electricity transmission lines running through the Mid/Southern Willamette region allows Oregon utility companies to exchange electricity with other states and Canada.²² Most of the natural gas Oregon uses originates in Alberta, Canada. Northwest Natural Gas owns one main natural gas transmission pipeline. An oil pipeline originating in the Puget Sound runs through the region and terminates in Eugene.²³ These lines may be vulnerable to severe, but infrequent natural hazards, such as earthquakes.

Section 4: Economic Profile

The following economic profile addresses the regional economy and its sensitivities to natural hazards. The sensitivities that are relevant to the Mid/Southern Willamette region are a function of the types and diversity of industries and the composition of businesses that are present. To highlight key industries, this report will look at:

The largest revenue sectors, since interruptions to these industry sectors would result in significant revenue loss for the region.

The largest employment industries, since interruptions to these industry sectors would result in high unemployment in the region.

- The industry sectors with the most businesses, since interruptions to these industry sectors would result in damage to the most businesses regionally.

By examining these key industry sensitivities and other economic sensitivities, such as industry diversity and the number of small businesses that exist in the Mid/Southern Willamette region, informed decisions can be made about how to mitigate risk.

ECONOMIC OVERVIEW

The Mid/Southern Willamette region has historically been dependent on wood and forest products for its economic vitality.²⁴ After the sector lost 1/3 of its jobs in the nineties, the region compensated by attracting rapidly growing high-tech companies and other non-manufacturing industry and services.²⁵ In the early 2000's yearly employment growth was about 2% annually. In 2007, employment began to stagnated and decline. However, growth in employment has occurred in all Mid/Southern Willamette Region counties since 2009. Benton County had the region's highest growth rate in 2010 at 1.6 percent.²⁶

According to the Oregon Employment Department, there was a 10.9% unemployment rate in the Mid/Southern Willamette region in 2010.²⁷ The unemployment rate was highest in Linn County at 13.3%.²⁸

Looking towards the future, the high tech industry, education, government, healthcare, manufacturing and retail trade sectors will continue to grow at a moderate rate and develop to provide goods, services and work opportunities for the area residents.²⁹ As of 2010, the region employed 388,187 people with a combined payroll over 14 billion dollars. Table 14 displays the payroll and employee figures per county.

Table 14. Employment and Payroll, Mid/Southern Willamette Region, 2010

County	# of Employees	Annual Payroll	Average Pay
Benton	34,295	\$1,476,557,119	\$43,055
Lane	134,572	\$4,829,633,517	\$35,889
Linn	39,577	\$1,390,217,881	\$35,127
Marion	132,525	\$4,860,983,722	\$36,680
Polk	16,989	\$516,172,339	\$30,383
Yamhill	30,229	\$1,041,8556,382	\$34,465
Total	388,187	\$14,115,420,960	\$36,362

Source: Oregon Labor Department.³⁰

In 2010, there were 27,664 businesses in the Mid/Southern Willamette region. Of these, 88%, or 24,414, were small businesses with less than 20 employees.³¹ The prevalence of small businesses in the Mid/Southern Willamette region is an indication of sensitivity to natural hazards because small businesses are more susceptible to financial uncertainty.³² When a business is financially unstable before a natural disaster occurs, financial losses (resulting from both damage caused and the recovery process) may have a bigger impact than they would for larger and more financially stable businesses.³³

Economic diversity is a general indicator of an areas fitness for weathering difficult financial times. The economic diversity of the businesses in the Mid/Southern Willamette region varies markedly between counties. Lane and Linn Counties are in the top quarter of state-ranked economic diversity. Polk County has the most homogenous economy of all the counties in the region. Table 15 displays the diversity ranking for each of the 6 counties.

Table 15. Economic Diversity Ranking, Mid/Southern Willamette Region, 2009

Economic Diversity Index Ranking		
County	Rank	Value
Benton	23	.300
Lane	3	.827
Linn	9	.543
Marion	11	.491
Polk	27	.217
Yamhill	15	.443

Source: Oregon Employment Department³⁴

Economic Diversity may be a general indicator of the economic fitness of a region, but it does not guarantee that the Mid/Southern Willamette counties are immune from financial difficulties. Linn and Marion Counties were listed as “economically distressed” by the Oregon Economic and community Development Department in 2007.³⁵ “Economic distress” is an indicator that new jobs, average wage, and personal income are decreasing and unemployment is increasing.

In the future, the economic diversity of Linn and Marion Counties should keep them financially able to weather natural hazards. An economy that is heavily dependent upon a few key industries may have a more difficult time recovering after a natural disaster than one with a more diverse economic base. While a community with a diverse economic base may suffer from an industry sector being damaged during a natural disaster, they have a broader base of operating industry sectors to continue to rely upon. However, a community that relies upon specific key industry sectors may have a harder time recovering their economic base if one of those key industry sectors is damaged. Recognizing that economic diversification is a long-term issue, more immediate strategies to reduce vulnerability should focus on risk management for the dominant industries.

KEY INDUSTRIES

Key industries are those that represent major employers, major revenue generators, and for the purposes of hazard mitigation planning, industries that are represented by a high number of businesses. Different industries face distinct vulnerabilities to natural hazards, as illustrated by the industry specific discussions below. Identifying key industries in the region enables communities to target mitigation activities towards those industries’ specific sensitivities.

It is important to recognize that the impact that a natural hazard event has on one industry can reverberate throughout the regional economy. The effect is especially great when the businesses concerned belong to a basic sector industry. Basic sector industries are those that are dependent on sales outside of the local community; they bring money into a local community via employment. The farm and ranch, information, and wholesale trade industries are all examples of basic industries. Non-basic sector industries are those that are dependent on local sales for their business, such as retail trade, construction, and health and social assistance.

Basic sector businesses have a multiplier effect on a local economy, whereby the jobs and income they bring to a community allow for the creation of new non-basic sector jobs. Their presence can therefore help speed the recovery process following a natural disaster. If, on the other hand, basic sector industry production is hampered by a natural hazard event, the multiplier effect could be experienced in reverse. In this case, a decrease in basic sector purchasing power results in lower profits (and potentially job losses) for the local non-basic businesses that are dependent on them.

High Revenue Sectors

Businesses in the Mid/Southern Willamette region primarily engage in secondary and tertiary economic sector industries. In 2007, the three industries in the region with the highest revenue were Manufacturing, Retail Trade, and Health Care.³⁶ Combined, these three industries generated over 31 billion in revenue for the region. Table 16 shows the revenue that is generated by the top three regional economic sectors.

Table 16. Revenue of Top Sectors, Mid/Southern Willamette Region, 2007

County	Total Revenue* (in Thousands)	Manufacturing	Retail Trade	Wholesale Trade	Health Care
Benton	\$ 2,498,140	20%	24%	13%	17%
Lane	\$ 18,119,991	34%	25%	16%	11%
Linn	\$ 5,593,199	49%	21%	17%	6%
Marion	\$ 9,626,237	22%	31%	26%	11%
Polk	\$ 1,016,707	38%	35%	6%	12%
Yamhill	\$ 3,442,204	49%	25%	10%	9%
Regional Total & Average	\$ 36,450,407	33%	26%	18%	11%

Source: U.S. Census, Economic Census. 2007

*The US Census did not disclose revenue figures in some counties where a sector was represented by only a few businesses. These totals and percents represent the closest estimate.

In 2007, the *Manufacturing* sector generated over \$14 billion in the Mid/Southern Willamette region, making it the largest earning sector.³⁷ Manufacturers are highly dependent upon the transportation network in order to access supplies and send finished products to outside markets. As base industries, they are not dependent on local markets for sales, which contribute to the economic resilience of this sector. Within the region, manufacturers are primarily based in Lane, Yamhill, Polk and Linn Counties.

The *Retail Trade* sector generated about 26% of the revenue in the Mid/Southern Willamette region. It contains small businesses that tend to be more sensitive to hazard induced costs due to prior financial instability. Retail trade is also largely dependent on wholesale trade and the transportation network for the delivery of goods for sale. Disruption of the transportation system could have severe consequences for retail businesses. Retail trade typically relies on local residents and tourists and their discretionary spending ability. Residents' discretionary spending diminishes after a natural disaster when they must pay to repair their

homes and properties. In this situation, residents will likely concentrate their spending on essential items that would benefit some types of retail (e.g. grocery) but hurt others (e.g. gift shops). The potential income from tourists also diminishes after a natural disaster as people are deterred from visiting the impacted area. In summary, depending on the type and scale a disaster could affect specific segments of retail trade, or all segments. Within the region, retail businesses are primarily based in Lane and Marion Counties.

Wholesale trade generated about 18% of the revenue in the region. It is closely linked with retail trade but it has a broader client base, with local and non-local businesses as the typical clientele. Local business spending will be likely to diminish after a natural disaster, as businesses repair their properties and wait for their own retail trades to increase. Distanced clients may have difficulty reaching local wholesalers due to transportation disruptions from a natural disaster. Within the region, wholesale businesses are primarily based in Lane and Marion Counties.

Health Care generated about 11% of the revenue in the region. It is a relatively stable revenue sector. Businesses primarily serve a local population. The products and services provided by the health care sector could be in demand after a natural hazard event. Health care businesses are primarily based in urban areas within the region.

Major Employment Sectors

Economic resilience to natural disasters is particularly important for the major employment sectors in the region. If these sectors are negatively impacted by a natural hazard, such that employment is affected, the impact will be felt throughout the regional economy. Thus, understanding and addressing the sensitivities of these sectors is a strategic way to increase the resiliency of the entire regional economy.

The four sectors in the Mid/Southern Willamette region with the most employees in 2007 were Federal, State and Local Government (23%), Manufacturing (12%), Retail Trade (15%), and Education and Health Services (10%).³⁸

Sector employment varies within the six Mid/Southern Willamette counties. Benton, Marion and Polk Counties have the greatest concentration of state and local government employees. Lane, Linn and Marion Counties have the greatest concentration of employment in retail trade. Yamhill, Benton, and Lane counties have the greatest concentration of employment in health care. Yamhill, Linn, Polk and Benton counties have the greatest concentration of manufacturing jobs. Table 18 shows the distribution of each county's employees across the five largest regional employment sectors.

Table 18. Total Employment and Percent of Employment by Top Sectors, Mid/Southern Willamette Region, 2010

County	Total Employment	Federal, State & Local Government	Retail Trade	Education and Health Services	Manufacturing
Benton	34,295	26%	9%	16%	10%
Lane	134,572	19%	13%	16%	9%
Linn	39,577	19%	11%	12%	17%
Marion	132,525	27%	11%	14%	7%
Polk	16,989	32%	8%	13%	12%
Yamhill	30,229	15%	10%	18%	19%
Regional Total	388,187	23%	12%	15%	10%

Source: Oregon Employment Department.³⁹

Sectors that are anticipated to be major employers in the future also warrant special attention in the hazard mitigation planning process. Between 2005 and 2013, the largest job growth in the Mid/Southern region is expected to occur in the higher education, higher technology, and manufacturing sectors.⁴⁰

State and Local Government and *Education* employment sectors should lend stability to the local economies if employment fluctuates in the coming years. Governmental and educational institutions are often called upon to play policy and facilitation roles in disaster recovery scenarios.

Health Care is second highest employment sector in the Mid/Southern Willamette region. The health care sector includes critical medical facilities, which are vital in the response and recovery phases of a disaster. If medical facilities are not prepared for natural hazard events, the ability of the community to recover can be diminished.

The *Manufacturing* sector is the fourth highest employment sector in the region. Despite recent job losses, it is expected to continue growing. This sector is vulnerable to disruptions of the transportation system. However, if raw materials and employees remain able to reach manufacturers, the sector should weather a natural hazard well. Many of the targeted consumers of this sector's products are located outside the region and their purchasing power would not be impacted by a localized natural disaster.

Common Business Types

Identifying sectors that are represented by a large number of businesses can guide the development of targeted mitigation strategies for those sectors. The most numerous businesses in the Mid/Southern Willamette region are in Retail at 10.8% (3152); Construction at 10.3% (3006); Health and Social Services at 9.7% (2842); Professional, Scientific, and Technical Services at 8.7% (2533); and Accommodation and Food Services 7.4% (2157).⁴¹

In the event of wildfires, floods, earthquakes, or other types of destructive natural disasters, residents are more likely to demand construction services and health care services. The demand for the tertiary economic services provided by retail trade and professional services may decrease. These businesses should create a plan to remain economically solvent through a natural hazard event.

Regional Profile and Sensitivity Conclusion

Information presented in the Demographic, Infrastructure, and Economic Profiles can be used to help communities identify areas of sensitivity and vulnerability to natural hazards. Once the areas of sensitivity are identified, communities should identify appropriate action items.

¹ LeDuc, A. "Establishing Mitigation as the Cornerstone for Community Resilience", 2006 Risk Management Yearbook, Public Entity Risk Institute. Fairfax, VA. 2006

² National Institute of Building Science's Multi-hazard Mitigation Council. "Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities" 2005

³ US Census Bureau, Geographic Information, 2000

⁴ Loy, William G., ed. Atlas of Oregon. 2001. University of Oregon Press.

⁵ Office of Economic Analysis Demographic Forecasts, State and County population forecasts and components of change
http://www.oregon.gov/DAS/OEA/demographic.shtml#Short_Term_State_Forecast

⁶ US Census Bureau, "Economic Characteristics," 2005-2009 American Community Survey 5-Year Estimates, <http://www.census.gov>

⁷ Hazards Workshop. Session Summary #16. Disasters, Diversity, and Equity. Annual Hazards Workshop, (July 12, 2000). University of Colorado, Boulder. Peggy Stahl, FEMA Preparedness, Training and Exercise Directorate.

⁸ US Census Bureau, "Economic Characteristics," 2005-2009 American Community Survey 5-Year Estimates, <http://www.census.gov>

⁹ US Census Bureau, "Age Groups and Sex," 2010 Census. <http://www.census.gov>

¹⁰ US Census Bureau, "Social Characteristics," 2005-2009 American Community Survey 5-Year Estimates, <http://www.census.gov>.

¹¹ Portland State University Population Research Center, "(2010) Oregon Population Report," <http://www.pdx.edu/prc/annualorpopulation.html>, Accessed January 5, 2012.

¹² US Census Bureau, "Housing Characteristics," 2005-2009 American Community Survey-5 Year Estimates, <http://www.census.gov>.

¹³ US Census Bureau, County Building Permits, 2010

¹⁴ US Census Bureau, "Economic Characteristics," 2005-2009 American Community Survey-5 Year Estimates, <http://www.census.gov>

¹⁵ BNSF Railway website. <http://www.bnsf.com/>.

¹⁶ Oregon Rail Plan: An Element of the Oregon Transportation Plan, 2001.
<http://www.oregon.gov/ODOT/RAIL/docs/railplan01.pdf>.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Federal Aviation Administration, "Airport Facilities Data," Airport Data (5010) and Contact Information, http://www.faa.gov/airports_airtraffic/airports/, accessed January 5, 2012.

²⁰ Loy, W.G., ed. 2001. *Atlas of Oregon*, 2nd Edition. Eugene: University of Oregon Press.

²¹ Oregon Water Resources Department, "Dam Inventory Query," http://apps2.wrd.state.or.us/apps/misc/dam_inventory/, accessed January 5, 2012.

²² Ibid.

²³ Ibid.

²⁴ Ibid.

²⁵ Oregon Quarterly Economic and Revenue Forecast, September 2008, <http://www.oregon.gov/DAS/OEA/docs/economic/forecast0908.pdf>

²⁶ Oregon Quarterly Economic and Revenue Forecast, September 2011, <http://www.oregon.gov/DAS/OEA/economic.shtml>

²⁷ Oregon Employment Department, "Local Area Employment Statistics," <http://www.qualityinfo.org/olmisi/labforce>, accessed December 27, 2011.

²⁸ Ibid.

²⁹ Office of Economic Analysis, Oregon Quarterly Economic and Revenue Forecast, September 2008, <http://www.oregon.gov/DAS/OEA/docs/economic/forecast0908.pdf>

³⁰ Oregon Employment Department, "2010 Covered Employment and Wages," (multiple counties), <http://www.qualityinfo.org/olmisi/CEP>, accessed December 27, 2011.

³¹ Oregon Employment Department, "2010 Covered Employment and Wages Size-of-Firm Report" (multiple counties), <http://www.qualityinfo.org/olmisi/CEP> accessed December 27, 2011

³² Alesch, Dan, et al. 2001. Organizations at Risk: What Happens When Small Businesses and Non-for-Profits Encounter Natural Disasters. http://www.riskinstitute.org/uploads/ptrdocs/Organizations_at_Risk.pdf.

³³ Ibid.

³⁴ Oregon Employment Department, Hachman Diversity Index 2009, 2006, 2003, 2001 and 1999.

³⁵ Oregon Employment and Community Development Department, "2007 distressed areas and associated index values," <http://www.oregon4biz.com/distlist.htm>, accessed January 14, 2009.

³⁶ US Census Bureau Economic Census 2007, Oregon Agriculture Information Network, 2007.

³⁷ US Census Bureau, Economic Census 2007

³⁸ Oregon Employment Department, “2010 Covered Employment and Wages Summary Report,” (multiple counties) <http://www.qualityinfo.org/olmisj/CEP>, accessed December 27, 2011.

³⁹ Oregon Employment Department, “2010 Covered Employment and Wages Summary Report,” (multiple counties) <http://www.qualityinfo.org/olmisj/CEP>, accessed December 27, 2011.

⁴⁰ Oregon Employment Department, Workforce Analysis, 2005

⁴¹ Oregon Employment Department, “2010 Covered Employment and Wages Summary Report,” (multiple counties), <http://www.qualityinfo.org/olmisj/CEP>, accessed December 27, 2011.

REGION 3

Mid/Southern Willamette Valley¹

Hazards Assessment

¹ Benton, Lane, Linn, Marion, Polk, and Yamhill counties

DROUGHT

Characteristics and Brief History

Droughts are not uncommon in the State of Oregon, nor are they just an “east of the mountains” phenomenon. They occur in all parts of the state, in both summer and winter months. Droughts appear to be cyclic, and can have a profound effect on the State’s economy, particularly the hydropower and agricultural sectors. The environmental consequences also are far-reaching, including insect infestations in Oregon forests and reduced stream flows to support endangered fish species. Severe drought conditions preceded the four disastrous Tillamook fires (1933, 1939, 1945, 1951) and pitted farmer against fish protection groups during the Klamath County drought of 2001. In recent years, the State has addressed drought emergencies through the Oregon Drought Council. This interagency (state/federal) council meets on an irregular basis to discuss forecasts climate outlooks, water and soil conditions, and to advise the Governor as the need arises. Significant droughts are depicted in Table 1.

TABLE 1. SIGNIFICANT DROUGHTS

DATE	DESCRIPTION
1904-1905	A statewide drought period of about 18 months
1917-1931	A very dry period throughout Oregon, punctuated by brief wet spells in 1920-21 and 1927
1939-1941	A three-year intense drought in Oregon
1976-1981	Intense drought in western Oregon; 1976-77 single driest year of century
1985-1997	Generally a dry period, capped by statewide droughts in 1992 and 1994
2000-2001	Klamath drought intensifies; Low snow pack in mountains worsens conditions Draw-down at Detroit Lake, Oregon, all but curtails lake recreation

Source: Taylor, George H., and Ray Hatton, 1999, *The Oregon Weather Book*.

Probability

Oregon’s drought history reveals many short-term and a few long-term events. The average recurrence interval for severe droughts in Oregon is somewhere between 8 and 12 years. Table 1 (above) provides an overview of some severe droughts in Oregon.

The probability that Region 3 will experience droughts is depicted in Table 2 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The probability scores below address the likelihood of a future major emergency or disaster within a specific period of time, as follows:

High = One incident likely within a 10 to 35 year period.

Moderate = One incident likely within a 35 to 75 year period.

Low = One incident likely within a 75 to 100 year period.

In some cases, counties either did not rank the hazard or did not find it to be a significant concern. These cases are noted with a dash (-) in the table below.

TABLE 2. Probability Assessment of Drought

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Probability	M	H	-	-	-	L

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

Vulnerability

The region’s vulnerability to drought is depicted in Table 3 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The vulnerability scores address the percentage of population or region assets likely to be affected by a major emergency or disaster, as follows:

High = More than 10% affected

Moderate = 1-10% affected

Low = Less than 1% affected

In some cases, counties either did not rank the hazard or did not find it to be a significant concern. These cases are noted with a dash (-) in the table below.

TABLE 3. Vulnerability Assessment of Drought

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Vulnerability	L	M	-	-	-	H

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

EARTHQUAKES

Characteristics and Brief History

The geographical position of Region 3 makes it susceptible to earthquakes from four sources: (1) the off-shore Cascadia Fault Zone, (2) deep intra-plate events within the subducting Juan de Fuca plate, (3) shallow crustal events within the North America Plate, and (4) earthquakes associated with renewed volcanic activity. All have some tie to the subducting or diving of the dense, oceanic Juan de Fuca Plate under the lighter, continental North America Plate. Stresses occur because of this movement and there appears to be a link between the subducting plate and the formation of volcanoes some distance inland from the off-shore fault zone.

When crustal faults slip, they can produce earthquakes with magnitudes (M) up to 7.0 and can cause extensive damage, which tends to be localized in the vicinity of the area of slippage. Deep intraplate earthquakes occur at depths between 30 and 100 kilometers below the earth's surface. They occur in the subducting oceanic plate and can approach M7.5. Subduction zone earthquakes pose the greatest hazard. They occur at the boundary between the descending oceanic Juan de Fuca Plate and the overriding North American Plate. This area of contact, which starts off the Oregon coast, is known as the Cascadia Subduction Zone (CSZ). The CSZ could produce an earthquake up to 9.0 or greater.

Region 3 has experienced a few historic earthquakes centered in the region. In addition, the region has been shaken historically by crustal and intraplate earthquakes and prehistorically by subduction zone earthquakes centered outside the area (Table 4 below). All considered, there is good reason to believe that the most devastating future earthquakes would probably originate along shallow crustal faults in the region and along the Cascadia Fault Zone. Deep-seated intra-plate events, as occurred near Olympia, Washington in 1949 and 2001, could generate magnitudes as large as M7.5, but have been non-existent in the region's historic record.

Earthquakes produced through volcanic activity could reach magnitudes of M5.2. However the Cascade volcanoes are some distance away from populated centers, which tends to lessen the concern.

Earthquake risk in Region 3 is reflected in the Uniform Building Code's (UBC) Earthquake Hazard maps (i.e., seismic zones 1-4). The higher the numerical designation, the more stringent the building standards become. Region 3 is within UBC Seismic Zone 3.

TABLE 4: SIGNIFICANT EARTHQUAKES

DATE	LOCATION	MAGNITUDE (M)	COMMENTS
Approximate Years 1400 BCE* 1050 BCE 600 BCE 400 750 900	Offshore, Cascadia Subduction Zone	Probably 8-9	Based on studies of earthquake and tsunami at Willapa Bay, Washington. These are the mid-points of the age ranges for these six events.
January, 1700	Offshore, Cascadia Subduction Zone	Approximately 9.0	Generated a tsunami that struck Oregon, Washington, and Japan; destroyed Native American villages along the coast
April, 1896	McMinnville	4	Also felt in Portland
July, 1930	Perrydale	4	Cracked plaster
April, 1949	Olympia, WA	7.1	Significant damage in Washington. Minor damage in NW Oregon. Intraplate
August, 1961	Albany	4.5	Minor damage in Albany
November, 1962	Portland area	5.5	Shaking lasted up to 30 seconds; chimneys cracked; windows broken; furniture moved
March, 1963	Salem	4.6	Minor damage in Salem
March, 1993	Scotts Mills, OR	5.6	On Mt. Angel-Gales Creek fault. \$30 million damage (including Oregon State Capitol in Salem) (FEMA-985-DR-OR)
February, 2001	Nisqually, WA	6.8	Felt in the region, no damage reported

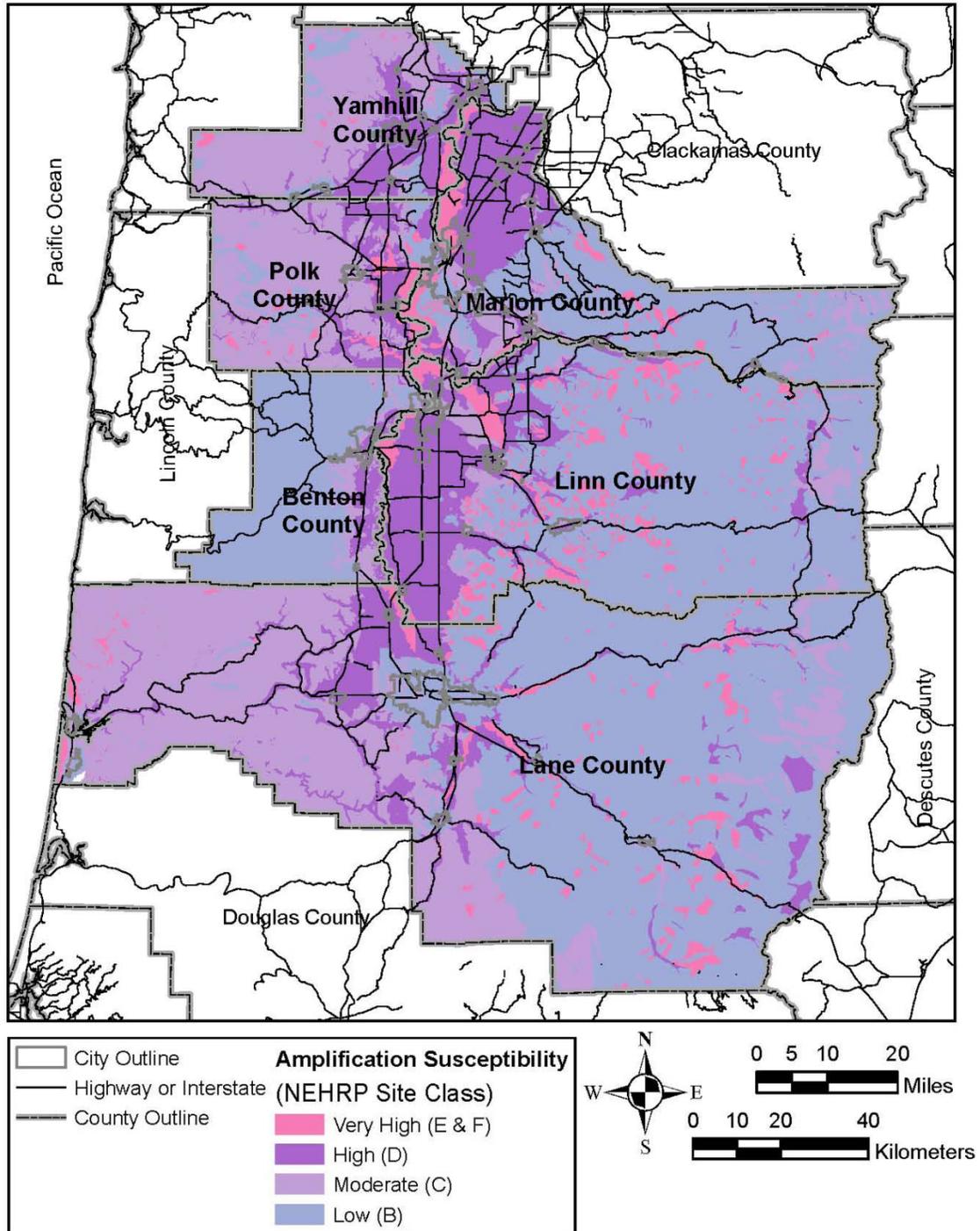
*BCE = Before Common Era

Sources: Ivan Wong and Jacqueline D.J. Bolt, 1995, "A Look Back at Oregon's Earthquake History, 1841-1994", *Oregon Geology*, pp. 125-139.

Earthquake associated hazards include severe ground shaking, liquefaction of fine-grained soils, and landsliding. The severity of these effects depend on several factors, including the distance from the earthquake source, the ability of soil and rock to conduct seismic energy and the degree (angle) and composition of slope materials.

As seismic waves travel through bedrock, some energy propagates through surface soils to the ground surface. It is during this propagation through these surface soils that the shaking can be greatly influenced. Soil deposits can either deamplify (weaken) or amplify the shaking based on the characteristics of the deposit. This phenomenon is generally referred to as ground shaking amplification (GSA). Figure 1 below displays the areas in region 3 with greater and lesser ground shaking amplification hazard.

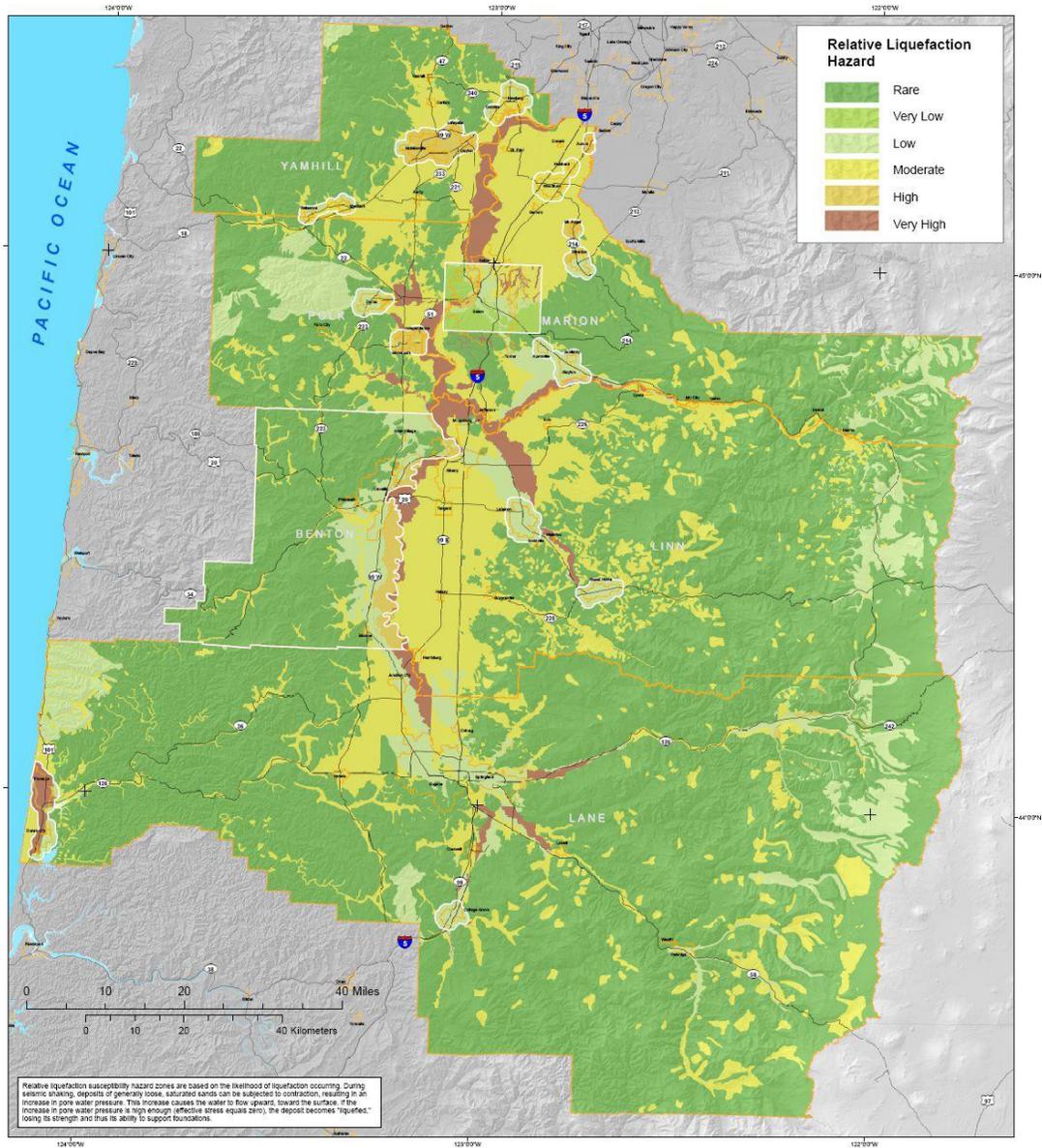
Figure 1. Amplification Susceptibility for Region 3.



Source: IMS-24, Geologic Hazards, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates for Six Counties in the Mid/Southern Willamette Valley Including Yamhill, Marion, Polk, Benton, Linn, and Lane Counties, and the City of Albany, Oregon, by William J. Burns, R. Jon Hofmeister, and Yumei Wang.

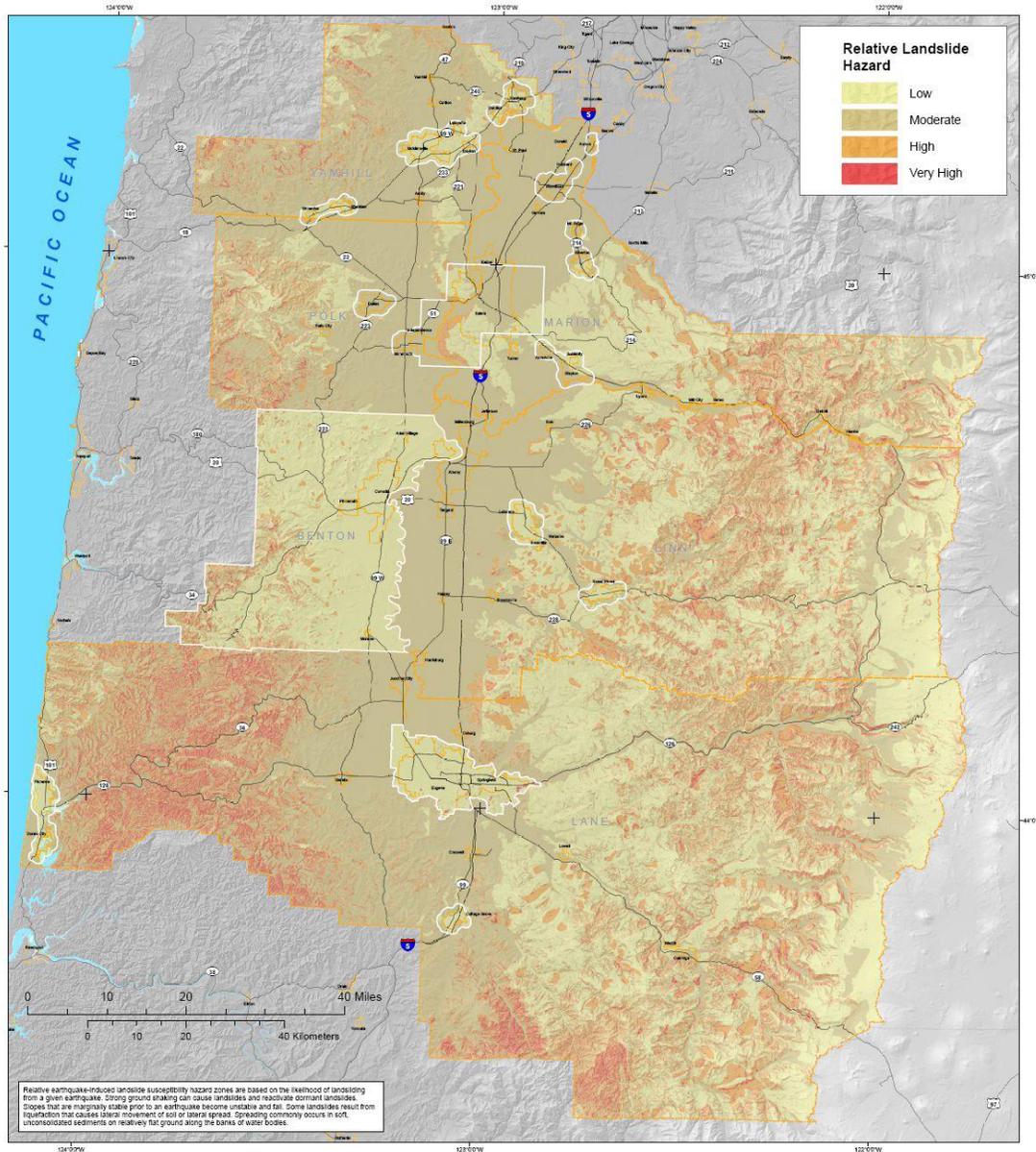
During seismic shaking, deposits of loose saturated sands can be subjected to contraction resulting in an increase in pore water pressure. If the increase in pore water pressure is high enough, the deposit becomes “liquefied,” losing its strength and thus its ability to hold support loads. Figure 2 below displays the areas in the region with greater and lesser liquefaction hazard.

FIGURE 2. Relative Liquefaction Hazard for Region 3.



Source: IMS-24, Geologic Hazards, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates for Six Counties in the Mid/Southern Willamette Valley Including Yamhill, Marion, Polk, Benton, Linn, and Lane Counties, and the City of Albany, Oregon, by William J. Burns, R. Jon Hofmeister, and Yumei Wang.

FIGURE 3. Earthquake Induced Landslide Hazards for Region 3.



Source: IMS-24, Geologic Hazards, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates for Six Counties in the Mid/Southern Willamette Valley Including Yamhill, Marion, Polk, Benton, Linn, and Lane Counties, and the City of Albany, Oregon, by William J. Burns, R. Jon Hofmeister, and Yumei Wang.

Probability

Scientists estimate the chance in the next 50 years of a great subduction zone earthquake is between 10 and 20 percent, assuming that the recurrence is on the order of 400 +/- 200 years. These events are estimated to have an average recurrence interval between 500 and 600 years, although the time interval between individual events ranges from 150 to 1000 years. The last CSZ event occurred approximately 300 years ago.²

Establishing a probability for crustal earthquakes is more difficult. There have been 5 earthquake above 4M centered in this region (see Table 4 above), of which the 1993 Scotts Mills earthquake was the largest. Oregon's seismic record is short and the number of earthquakes above 4M centered in Region 3 is small. Therefore, any kind of prediction would be questionable. Earthquakes generated by volcanic activity in Oregon's Cascade Range are possible, but likewise unpredictable.

The following probability estimates are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The probability scores below address the likelihood of a future major emergency or disaster within a specific period of time, as follows:

High = One incident likely within a 10 to 35 year period.

Moderate = One incident likely within a 35 to 75 year period.

Low = One incident likely within a 75 to 100 year period.

TABLE 5. Probability Assessment of Earthquakes

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Probability	M	L	H	H	M	H

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

Vulnerability

Region 3 is especially vulnerable to earthquake hazards because much of the area is susceptible to earthquake-induced landslides, liquefaction, and strong ground shaking.

In 2007, DOGAMI completed a rapid visual screening (RVS) of educational and emergency facilities in communities across Oregon, as directed by the Oregon Legislature in Senate Bill 2 (2005). RVS is a technique used by the Federal Emergency Management Agency (FEMA), known as FEMA 154, to identify, inventory, and rank buildings that are potentially vulnerable to seismic events. DOGAMI surveyed a total of 3,349 buildings, giving each a 'low,' 'moderate,' 'high,' or 'very high' potential of collapse in the event of an earthquake. It is important to note that these rankings represent a probability of collapse based on

² Oregon Geology, 2002.

limited observed and analytical data and are therefore *approximate* rankings.³ To fully assess a building’s potential of collapse, a more detailed engineering study completed by a qualified professional is required, but the RVS study can help to prioritize which buildings to survey.

Table 6 below shows the number of buildings surveyed in each county with their respective rankings.

TABLE 6. REGION 3 BUILDINGS COLLAPSE POTENTIAL

County	Level of Collapse Potential			
	Low (< 1%)	Moderate (>1%)	High (>10%)	Very High (100 %)
Benton	13	5	22	3
Lane*	126	69	68	8
Linn	74	15	30	23
Marion	94	34	88	30
Polk	13	11	17	4
Yamhill	30	20	22	5

*Does not include the Lane County coastal communities of Deadwood, Florence, Mapleton, and Swisshome which are addressed in the Region 1 Profile.

Source: DOGAMI 2007. Open File Report 07-02. Statewide Seismic Needs Assessment Using Rapid Visual Assessment.

The Oregon Department of Geology and Mineral Industries (DOGAMI) has also developed two earthquake loss models for Oregon based on the two most likely sources of seismic scenarios: (1) the Cascadia Subduction Zone (CSZ), and (2) M6.5 arbitrary crustal earthquake. Both models are based on HAZUS-MH software currently used by the Federal Emergency Management Agency (FEMA) as a means of determining potential losses from earthquakes.

The CSZ event is based on a potential 9.0 earthquake generated off the Oregon coast. The model does not take into account a tsunami, which probably would develop from the event. The M6.9 arbitrary crustal earthquake scenario does not look at a single earthquake (as in the CSZ model); it encompasses many faults, each with a 2% chance of producing an earthquake in the next 50 years. The model assumes that each fault will produce a single “average” earthquake during this time

DOGAMI investigators caution that the models contain a high degree of uncertainty and should be used only for general planning purposes. Despite their limitations, the models do provide some approximate estimates of damage. Results are found in Tables 7-9.

In addition, DOGAMI has mapped areas of severe ground shaking, liquefaction, and earthquake-induced landslides for all the counties in Region 3. These maps can be used for general planning purposes.

³ State of Oregon Department of Geologic and Mineral Industries, Implementation of 2005 Senate Bill 2 Relating to Public Safety, Seismic Safety and Seismic Rehabilitation of Public Building, May 22, 2007, iv.

TABLE 7: ESTIMATED LOSSES FROM M9 CSZ AND LOCAL CRUSTAL EVENT

REGION 3 COUNTIES	BUILDING VALUE (BILLIONS)	TOTAL BUILDING-RELATED LOSSES FROM A 9.0 CSZ EVENT (BILLIONS)	TOTAL BUILDING-RELATED LOSSES FROM A CRUSTAL EARTHQUAKE (BILLIONS)
Benton	\$4.85	\$1.1	\$0.8
Lane	\$21.055	\$5.0	\$3.4
Linn	\$5.669	\$1.2	\$1.3
Marion	\$15.86	\$2.6	\$3.9
Polk	\$3.467	\$0.6	\$0.4
Yamhill	\$4.597	\$1.2	\$1.5

Source: DOGAMI, Geologic Hazards, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates, 2008

TABLE 8. ESTIMATED LOSSES ASSOCIATED WITH AN MAGNITUDE 8.5-9.0 SUBDUCTION EVENT*

CATEGORIES	REGION 3 COUNTIES					
	Benton	Lane	Linn	Marion	Polk	Yamhill
Injuries (5 pm time period)	1,356	3,945	1,049	2,492	678	1190
Deaths (5 pm time period)	96	264	67	157	43	74
Displaced Households	2,375	7,633	2,563	5,787	1,822	3,082
Economic Losses For Buildings	\$1,049.51 million	\$4,652 million	\$1,150.68 million	\$2,604.95million	\$624.43 million	\$1198.48 million
OPERATIONAL AFTER DAY 1						
Fire station	100%	100%	100%	100%	100%	100%
Police Station	100%	100%	100%	100%	100%	100%
Schools	91%	100%	100%	99%	100%	98%
Bridges	91%	84%	100%	89%	82%	85%
Economic Loss to Infrastructure						
Highways	\$ 33.5 million	\$211 million	\$4.4 million	\$127.7 million	\$59.4 million	\$60.2 million
Airports	\$0 million	\$13.3 million	\$23.10 million	\$13 million	\$14 million	\$21.4 million
Communications	\$0 million	\$0.33 million	\$0.07 million	\$0.03 million	\$0.05 million	\$0.03 million
Debris Generated (thousands of tons)	0	2,000	0	1,000	0	0

Source: DOGAMI, Geologic Hazards, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates, 2008.

TABLE 9. ESTIMATED LOSSES ASSOCIATED WITH AN ARBITRARY M 6.5-6.9 CRUSTAL EVENT¹

MITIGATION FACTORS	REGION 3 COUNTIES					
	Benton	Lane	Linn	Marion	Polk	Yamhill
INJURIES (5 pm time period)	557	1821	993	3,249	321	1,178
DEATHS (5 pm time period)	33	96	59	189	18	67
DISPLACED HOUSEHOLDS	1,755	7,716	3,683	10,701	1,412	4,256
ECONOMIC LOSSES FOR BUILDINGS	\$762.25 million	\$3,351.03 million	\$1,315.72 million	\$3979.57 million	\$409.43 million	\$1,525.35 million
OPERATIONAL THE DAY AFTER THE EVENT						
Fire station	75%	100%	77%	61%	100%	50%
Police Station	75%	91%	40%	65%	100%	64%
Schools	91%	99%	70%	74%	100%	68%
Bridges	100%	97%	91%	86%	93%	89%
ECONOMIC LOSSES TO INFRASTRUCTURE						
Highways	\$18.7 million	\$106 million	\$129.70 million	\$271.5 million	\$35.7 million	\$71.3 million
Airports	\$19.3 million	\$16 million	\$38.3 million	\$38 million	\$11 million	\$43.9 million
Communications	\$ 0.24 million	\$0.63 million	\$0.11 million	\$0.18 million	\$0.05 million	\$0.10 million
DEBRIS GENERATED (in thousands of tons)	0	1,000	0	1,000	0	0

Source: DOGAMI, 2008, Geologic Hazards, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates.

The region’s vulnerability to earthquakes is depicted in Table 10 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The vulnerability scores address the percentage of population or region assets likely to be affected by a major emergency or disaster, as follows:

High = More than 10% affected

Moderate = 1-10% affected

Low = Less than 1% affected

TABLE 10. Vulnerability Assessment of Earthquakes

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Vulnerability	H	M	H	H	H	M

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

FIRES IN THE WILDLAND/URBAN INTERFACE

Characteristics and Brief History

Oregon has a very lengthy history of fire in the undeveloped wildlands and in the developing urban/wildland interface. In recent years, the cost of fire suppression has risen dramatically; a large number of homes have been threatened or burned, more fire fighters have been placed at risk, and fire protection in wildland areas has been reduced. These factors prompted the passage of Oregon Senate Bill (SB) 360 (Forestland / Urban Interface Protection Act, 1997). This bill: (1) establishes legislative policy for fire protection, (2) defines urban/wildland interface areas for regulatory purposes, (3) establishes standards for locating homes in the urban/wildland interface, and (4) provides a means for establishing an integrated fire protection system. Table 11 provides information about historic fires in region.

TABLE 11. SIGNIFICANT WILDFIRES

Year	Name of Fire	Counties	Acres Burned	Remarks
1853	Nestucca	Tillamook / Yamhill	320,000	
1849	Siletz	Lincoln / Polk	800,000	
1865	Silverton	Marion	988,000	
1933	Tillamook	Tillamook, Yamhill	240,000	Human caused. Between 1933 and 1951, the Tillamook forest burned every six years. Fires followed drought conditions. Total Tillamook Burn: 350,000 acres (George Taylor, <i>The Oregon Weather Book</i> , p.202)
1966	Oxbow	Lane	44,000	
1972	Yamhill	Yamhill		
1977		Yamhill		West of Carlton
1987	Shady Lane	Polk		
2002		Lane		Four people were injured

Source: Brian Ballou, August 2002, A Short History of Oregon Wildfires, Oregon Department of Forestry, unpublished; and Oregon Emergency Management, State Natural Hazard Mitigation Plan, 2003, Wildland/Urban Interface chapter.

Source: Hazards & Vulnerability Research Institute (2007). The Spatial Hazard Events and Losses Database for the United States, Version 5.1 [Online Database]. Columbia, SC: University of South Carolina. Available from <http://www.sheldus.org>

Note: This list is representative of a lengthy wildfire history. There have been many fires, named and unnamed. Statistics differ, depending on the source.

Probability

The natural ignition of forest fires is largely a function of weather and fuel; human-caused fires add another dimension to the probability. Dry and diseased forests can be mapped accurately and some statement can be made about the probability of lightning strikes. Each forest is different and consequently has different probability / recurrence estimates.

This document defines wildfire as an uncontrolled burning of forest, brush, or grassland. Wildfire always has been a part of these ecosystems and sometimes with devastating effects. Table 9 provides an overview of some of Oregon's most devastating wildfires. Some are located in counties within Region 3 (e.g., Marion, Polk, and Yamhill). Wildfire results from natural causes (e.g., lightning strikes), a mechanical failure (Oxbow Fire), or human-caused (unattended campfire, debris burning, or arson). The severe fire season of 1987 resulted in a record setting mobilization of fire fighting resources. Most wildfires can be linked to human carelessness.

The intensity and behavior of wildfire depends on a number of factors including fuel, topography, weather, and density of development. There are a number of often-discussed strategies to reduce the negative impacts of these phenomena. They include land-use regulations, management techniques, site standards, building codes, and a recently passed Oregon Forestland-Urban Interface Fire Protection Act (1997). All of these have a bearing on a community's ability to prevent, withstand, and recover from a wildfire event.

The probability that Region 3 will experience fires in interface areas and is depicted in Table 12 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The probability scores below address the likelihood of a future major emergency or disaster within a specific period of time, as follows:

High = One incident likely within a 10 to 35 year period.

Moderate = One incident likely within a 35 to 75 year period.

Low = One incident likely within a 75 to 100 year period.

TABLE 12. Probability Assessment of Fires in Interface Areas

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Probability	H	H	H	M	M	M

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

Vulnerability

An understanding of risk begins with the knowledge that wildfire is a natural part of forest and grassland ecosystems. Past forest practices included the suppression of all forest and grassland fires. This practice, coupled with hundreds of acres of dry brush or trees weakened or killed through insect infestation, has fostered a dangerous situation. Present state and national forest practices include the reduction of understory vegetation through thinning and prescribed (controlled) burning.

Each year a significant number of people build homes within or on the edge of the forest (urban/wildland interface), thereby increasing wildfire hazards. Many Oregon communities (incorporated and unincorporated) are within or abut areas subject to serious wildfire hazards. In Oregon, there are about 240,000 homes worth around \$6.5 billion within the urban/wildland interface. Such development has greatly complicated firefighting efforts and significantly increased the cost of fire suppression. These communities have been designated "Interface Communities" and include those in Table 13 below.

A detailed community inventory of factors that affect vulnerability is important in assessing risk and is beyond the scope of the statewide assessment.

When assessing the risks from natural hazards, established mitigation practices already provide benefits in reduced disaster losses. It is important for communities to understand the benefits of past mitigation practices when assessing their risks, being mindful of opportunities to further reduce losses.

Possible mitigation practices include:

- Identify and map current hazardous forest conditions such as fuel, topography, etc.;
- Identify forest / urban interface communities - List of interface communities, Federal Register, 08/17/01. V. 66, N. 160;
- Identify and map Forest Protection Districts;
- Identify and map water sources;
- Implement effective addressing system in rural forested areas;
- Clearly mark evacuation routes;
- Identify and locate seasonal forest users. Initiate information program through schools, summer camps, forest camping grounds, lodges, etc;
- Identify and map bridges that can (and can not) support the weight of emergency vehicles. This is a basic requirement for fire suppression;
- Form committees to implement Oregon Senate Bill 360. This is required in Oregon Senate Bill 360; and
- Create road standards in interface areas to reflect fire suppression needs. Roads must be wide enough for fire suppression vehicles to turn around. Road grades cannot be too steep for large, heavy vehicles.

TABLE 13. WILDLAND/URBAN INTERFACE COMMUNITIES

Benton Co.	Lane Co. (Non-Coastal)	Linn Co.	Marion Co.	Polk Co.	Yamhill Co.
Adair Village	Bohemia City	Albany	Breitenbush	Airlie	Grand Ronde Agency
Alpine	Coburg	Brownsville	Detroit	Buell	McMinnville
Alsea	Cottage Grove	Clear Lake Resort	Gates	Dallas	Midway
Bellfountain	Creswell	Harrisburg	Idanha	Falls City	Orchard View
Blodgett	Dexter	Lebanon	Jefferson	Fort Hill	Willamina
Corvallis	Dorena	Marion Forks	Lyons	Grand Ronde	
Dawson	Eugene	Mill City	Marion	Pedee	
Glenbrook	London Springs	New Idanha	Mehama		
Kings Valley	Lorane	Scio	Salem		
Lewisburg	Lower McKenzie	Sweet Home East	Scotts Mills		
Monroe	Lower Willamette	Sweet Home West	Silverton		
Philomath	Marcola		Stayton		
Summit	Pleasant Hill				
Wren	Springfield				
	Upper McKenzie				
	Upper Willamette				
	Waldon				
	West Valley				

Source: August 17, 2001, *Federal Register*, V.66, N. 16.

The region’s vulnerability to fires in the wildland/urban interface is depicted in Table 14 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The vulnerability scores address the percentage of population or region assets likely to be affected by a major emergency or disaster, as follows:

High = More than 10% affected

Moderate = 1-10% affected

Low = Less than 1% affected

TABLE 14. Vulnerability Assessment of Fires in Interface Areas

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Vulnerability	M	M	M	M	M	M

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

FLOOD

Characteristics and Brief History

Region 3 has a lengthy flood history. Other notable floods affecting Region 3 are shown in Table 15. Table 16 describes flood sources for each of the counties in the region.

Most of the serious flooding experienced in Region 3 occurs in December and January. These events are usually associated with La Niña conditions, which result in prolonged rain and rapid snow melt on saturated or frozen ground. This sudden influx of water causes rivers to swell, forcing tributary streams to back up and flood communities.

Spring snowmelt sometimes causes problematic flooding, but development has contributed to the severity of normal stream cycles. Water flows more quickly over logged forestland, meaning that more rainwater flows more quickly into streams and rivers. Urbanization and stormwater runoff have had a significant impact on Willamette Valley flooding. Undersized culverts, bridge clearance, substandard dikes / levees, and debris dams are also problematic. Additionally, sheet flooding occurs from agricultural land; because this occurs far from a source river or stream, however, such flood areas are not depicted on federal Flood Insurance Rate Maps.

TABLE 15. SIGNIFICANT FLOODS

DATE	Location	CHARACTERISTICS	TYPE OF FLOOD
Dec. 1861	Willamette Basin and Coastal Rivers	Proceeded by two weeks of heavy rain. Every town on the Willamette was flooded or washed away. 635,000 cfs at Portland	Rain on snow; snow melt
Feb. 1890	Willamette Basin and Coastal Rivers	Second largest known flood in the Willamette Basin. Almost every large bridge washed downstream.	Rain on snow
Dec. 1937	Western Oregon	Flooding followed heavy rains. Considerable highway flooding; landslides.	Rain on snow
Jan. 1953	Western Oregon	Widespread flooding in western Oregon accompanied by windstorm	Rain on snow
Dec. 1964- Jan. 1965	Willamette Basin	Record flooding throughout Willamette Basin. Two intense storms. Near-record early season snow Depths. Largest flood in Oregon since dam construction on upper Willamette (1940s-50s). \$34 million in damages.	Rain on snow
Jan. 1974	Western Oregon	Flooding followed heavy wet snow and freezing rain. Nine counties received Disaster Declaration	Rain on snow
Dec. 1978	Western Oregon	Intense heavy rain, snowmelt, saturated ground. 1 fatality in Region 3 (Benton County)	Rain on snow
Feb. 1986	Entire State	Severe statewide flooding. Rain and melting snow. Numerous homes flooded and highways closed.	Snowmelt
Feb. 1987	Western Oregon	Willamette River and tributaries. Mudslides; damaged highways and homes.	Rain on snow
Feb. 1996	Entire State	Deep snow pack, warm temperatures, record-breaking rains. Flooding, landslides, power-outages. (FEMA-1099-DR-OR)	Rain on snow

Source: Taylor, George and Raymond Hatton, 1999, *The Oregon Weather Book*, p.77-103; National Climatic Data Center Storm Events, located at <http://www4.ncdc.noaa.gov/cgi-win/wwcqi.dll?wwEvent~Storms>.

TABLE 15. SIGNIFICANT FLOODS (con't.)

DATE	Location	CHARACTERISTICS	TYPE OF FLOOD
Nov. 1996	Entire State	Record-breaking precipitation; local flooding / landslides. (FEMA-1149-DR-OR)	Rain on snow
Dec. 2005	Polk, Marion, Linn, Lane, Benton	Heavy rains causing rivers to crest above flood stage in Polk, Marion, Linn, Lane, and Benton Counties, as well as other counties in the Willamette Valley.	Riverine
Jan. 2006	Willamette Valley	Heavy rains caused many rivers to crest above flood stage in the Willamette Valley, causing road closures and damage to agricultural lands.	Riverine
Dec. 2007	Yamhill	South Yamhill River flooded near McMinnville, causing damage to roads and bridges, 120 homes in Sheridan along with a few businesses and churches, and causing minor damage in Willamina. Total county-wide damage estimates at \$9.6 million.	Riverine
Dec. 2007	Polk	Major flooding in Suver and other areas in Polk County. Total losses equal 1 million for entire county.	Riverine

Source: Taylor, George and Raymond Hatton, 1999, *The Oregon Weather Book*, p.77-103; National Climatic Data Center Storm Events, located at <http://www4.ncdc.noaa.gov/cgi-win/wwwcgi.dll?wwEvent~Storms>.

TABLE 16. PRINCIPAL RIVERENE FLOOD SOURCES

Benton County	Lane County	Linn County	Marion County	Polk County	Yamhill County
Willamette River, N. Fork Alsea, and tributaries, especially Marys River Newton Cr Mill Race Frazier Cr Soap Cr Oak Cr Jackson Cr	Willamette River and tributaries, especially Amazon Cr Berkshire Sl Blue R Cedar Cr Coast Fork Dedrick Sl Fall Cr Long Tom R Mckenzie R. Mohawk R. Oxley Sl Row River Salmon Cr Silk Cr	Willamette River and tributaries, especially Calapooia R. Santiam (N&S) Thomas Cr Ames Cr Oak Cr Peters Ditch Truax Cr	Willamette River and tributaries, especially Santiam R Pudding R Battle Cr Butte Cr Beaver Cr Claggett Cr Croisan Cr Gibson Cr Lake Labish Cr Mill Cr Pringle Cr Senecal Cr Silver Cr Shelton Ditch	Willamette River and tributaries, especially S. Yamhill R Ash Cr (all forks) Agency Cr Ellendale Cr Gibson Cr Rickreall Cr Rock Cr Rowell Cr	Willamette River and tributaries, especially Yamhill R Yamhill Cr Baker Cr Chehalem Cr Cozine Cr Hess Cr Palmer Cr

Sources: FEMA, Benton County Flood Insurance Study (FIS), 08/15/96; FEMA, Lane County FIS, 06/02/99; FEMA, Linn County FIS, 09/29/86 ; FEMA, Marion County FIS, 07/13/01; FEMA, Polk County FIS, 12/19/95;; FEMA, Yamhill County FIS, 09/30/83.

Probability

The Federal Emergency Management Agency (FEMA) has mapped most flood-prone streams in Oregon. The maps depict the 1% flood (100-year) upon which the National Flood Insurance Program is based.

The probability that Region 3 will experience floods is depicted in Table 17 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The probability scores below address the likelihood of a future major emergency or disaster within a specific period of time, as follows:

High = One incident likely within a 10 to 35 year period.

Moderate = One incident likely within a 35 to 75 year period.

Low = One incident likely within a 75 to 100 year period.

TABLE 17. Probability Assessment of Floods

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Probability	H	H	H	H	M	M

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

Vulnerability

Table 18 describes some activities that counties may undertake to reduce their vulnerability to flood hazards. It includes information about participation in the National Flood Insurance Program (NFIP), vulnerable buildings within the region's floodplains, and floodplain code requirements.

TABLE 18. FACTORS / ACTIVITIES THAT REDUCE VULNERABILITY TO RIVERENE FLOODING

FACTORS AFFECTING VULNERABILITY	COUNTIES						REMARKS
	Benton	Lane	Linn	Marion	Polk	Yamhill	
Effective Date of Flood Insurance Rate Map / Study	8/05/86	6/02/99	9/29/86	1/02/03	12/19/06	9/30/83	Older maps do not reflect present flood conditions
Number of Buildings in 1% (100-yr) Floodplain	From local mitigation plan*	From local mitigation plan	Provides indication of Risk				
Number of Pre-FIRM Buildings in Floodplain	From local mitigation plan*	From local mitigation plan	Buildings constructed before FIRM may be below BFE				
Elevation Requirements (Residential / Non-Res)	1 ft. above BFE	1 ft. above BFE	1 ft. above BFE	2 ft. above BFE	1 ft. above BFE	1 ft. above BFE	Local elevation requirements may be more stringent than State (Res.= 1 ft. above BFE)
Number of Repetitive Loss Structures	06	59	14	20	0	0	Communities need to prioritize Repetitive Loss Properties as part of mitigation strategy
Participation in Community Rating System / Class	Corvallis 7	Eugene 7	Albany 8	Marion Co. 7	Polk Co. 7	Sheridan 8	Communities participating in CRS exceed NFIP standards – and receive lower flood insurance rates
Flood Insurance Policies in Force	943	3,593	768	2,235	941	463	Policies provide protection of building and contents plus \$20,000 toward elevating or moving building out of floodplain

Source: FEMA Region X and county floodplain ordinances.

*Local natural hazards mitigation plans are covering this level of detail in their respective community mitigation plan

The region’s vulnerability to floods is depicted in Table 19 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The vulnerability scores address the percentage of population or region assets likely to be affected by a major emergency or disaster, as follows:

High = More than 10% affected

Moderate = 1-10% affected

Low = Less than 1% affected

TABLE 19. Vulnerability Assessment of Floods

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Vulnerability	M	H	H	M	H	H

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

LANDSLIDE / DEBRIS FLOW

Characteristics and Brief History

Landslides and debris flows always have and always will shape Oregon's landscape. Landslides become problematic, however, when people place buildings and infrastructure in harm's way. Additionally, development practices can cause or contribute to the severity of landslides.

There are several categories of landslides, based on configuration (slide mechanism), slide materials, and rate of movement. Some slides are ancient, deep-seated, and slow moving. Others move rapidly as a mass of rock, mud, and large woody debris. All can be problematic when in the vicinity of buildings and infrastructure. Fast-moving landslides, or debris flows, occur throughout Oregon, but are especially noteworthy in the Cascade and Coast Ranges.

Debris flows (mudslides, mudflows, debris avalanches) are a common type of rapidly moving landslide that generally occur during intense rainfall on previously saturated ground. They usually begin on steep hillsides as slumps or slides that liquefy, accelerate to speeds as great as 35 mph or more, and flow down slopes and channels onto gently sloping ground. Their consistency ranges from watery mud to thick, rocky, mud-like wet cement, dense enough to carry boulders, trees, and automobiles. Debris flows from different sources can combine in canyons and channels, where their destructive power is greatly increased. In general, slopes that are over 25% or have a history of landslides might signal a landslide problem.

Landslides / debris flows probably accompany every major storm system that impacts western Oregon. In recent events, particularly noteworthy landslides accompanied storms in 1964, 1982, 1966, and 1996. Two major landslide producing winter storms occurred in Oregon during November 1996. Intense rainfall on recently and past logged land as well as previously un-logged areas triggered over 9,500 landslides and debris flows that resulted directly or indirectly in eight fatalities. Highways were closed and a number of homes were lost. The fatalities and losses resulting from the 1996 landslide events brought about the passage of Oregon Senate Bill 12, which set site development standards, authorized the mapping of areas subject to rapidly moving landslides and the development of model landslide (steep slope) ordinances.

Counties with the highest percentage of reported landslides are: Lane (24%), Douglas (11%), Linn (10%), Tillamook (9%), Lincoln (8%), and Multnomah (7%).⁴ Table 20 describes some of the landslides that have occurred throughout the State of Oregon. Though not all of them occurred in Region 3, all serve as indicators of the type of landslide events likely to occur in the region.

⁴ Hofmeister, 2000, *Slope Failures in Oregon*; and DOGAMI, Special Paper 34.

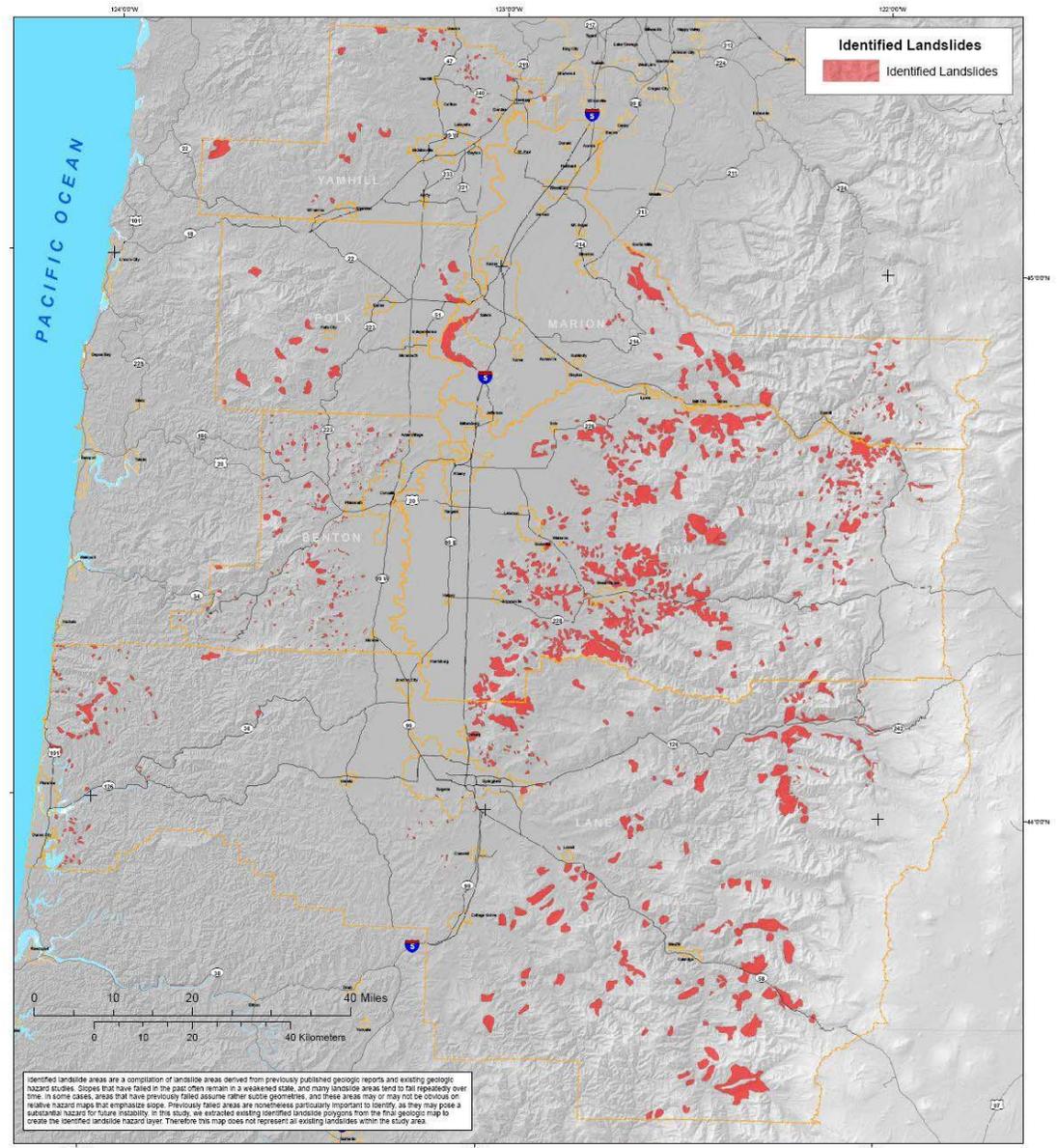
TABLE 20. NOTABLE LANDSLIDE / DEBRIS FLOW EVENTS

DATE	INCIDENT
08/1957	Rock slide killed two workers near Westfir
02/1996	Heavy rains and rapidly melting snow contributed to hundreds of landslides / debris flows across the state. Many occurred on clear cuts that damaged logging roads (FEMA-1099-DR-OR)
11/1996	Heavy rain triggered mudslides in Lane and Douglas counties. Eight fatalities and several injuries in Douglas County. (FEMA-1149-DR-OR)

Sources: George Taylor and Ray Hatton, 1999, *The Oregon Weather Book*; and Oregon Department of Transportation Emergency Operations Plan, October 7, 2002.

To reduce the risk of impact from future landslides, identification of the areas with factors that reduce the stability of slopes is a crucial step. One of these factors, existing identified landslides, is displayed spatially in Figure 4 below.

FIGURE 4. Identified Landslides for Region 3.



Source: IMS-24, Geologic Hazards, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates for Six Counties in the Mid/Southern Willamette Valley Including Yamhill, Marion, Polk, Benton, Linn, and Lane Counties, and the City of Albany, Oregon, by William J. Burns, Jon Hofmeister, and Yumei Wang.

Probability

The probability of rapidly moving landslide occurring depends on a number of factors; these include steepness of slope, slope materials, local geology, vegetative cover, human activity, and water. There is a strong correlation between intensive winter rainstorms and the occurrence of rapidly moving landslides (debris flows); consequently, the Oregon Department of Forestry tracks storms during the rainy season, monitors rain gages and snow melt, and issues warnings as conditions warrant. Given the correlation between precipitation / snow melt and rapidly moving landslides, it would be feasible to construct a

probability curve. The installation of slope indicators or the use of more advanced measuring techniques could provide information on slower moving slides.

Geo-engineers with the Oregon Department of Forestry (ODF) estimate widespread activity about every 20 years; landslides at a local level can be expected every 2 or 3 years (Mills, 2002).

All of the counties in Region 3 have mapped their steep slope (hazardous) areas and have adopted steep slope ordinances. Figure 4 shows the relative landslide hazard found in Region 3

The probability that Region 3 will experience landslides is depicted in Table 21 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The probability scores below address the likelihood of a future major emergency or disaster within a specific period of time, as follows:

High = One incident likely within a 10 to 35 year period.

Moderate = One incident likely within a 35 to 75 year period.

Low = One incident likely within a 75 to 100 year period.

In some cases, counties either did not rank the hazard or did not find it to be a significant concern. These cases are noted with a dash (-) in the table below.

TABLE 21. Probability Assessment of Landslides

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Probability	M	M	-	-	-	-

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

Vulnerability

The region’s vulnerability to landslides is depicted in Table 22 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The vulnerability scores address the percentage of population or region assets likely to be affected by a major emergency or disaster, as follows:

High = More than 10% affected

Moderate = 1-10% affected

Low = Less than 1% affected

In some cases, counties either did not rank the hazard or did not find it to be a significant concern. These cases are noted with a dash (-) in the table below.

TABLE 22. Vulnerability Assessment of Landslides

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Vulnerability	L	L	-	-	-	-

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

VOLCANO-ASSOCIATED HAZARDS

Characteristics and Brief History

The western boundaries of Lane, Linn, and Marion counties coincide with the crest of the Cascade Mountains. Volcanic activity in the Cascades will continue, but questions regarding how, to what extent, and when remain unanswered. Most volcano-associated hazards are local (e.g., explosions, debris, lava, and pyroclastic flows). However, lahars can travel considerable distances down stream valleys and wind-borne tephra (ash) can blanket areas many miles from the source. There is virtually no risk from volcanoes in Benton, Polk, and Yamhill counties, although normal prevailing winds could shift and carry ash into those areas. Lane, Linn, and Marion counties are at risk and should consider the impact of volcano-related activity on small mountain communities, dams, reservoirs, energy-generating facilities, and highways. These counties also should consider probable impacts on the local economy, e.g., wood products and recreation.

The history of volcanic activity in the Cascade Range is contained in its geologic record, and the age of the volcanoes vary considerably. Some lava flows on Washington's Mt. Rainier are thought to be older than 840,000 years; Mt. Saint Helens erupted in May 1980, and continues to be active. In short, all of the Cascade volcanoes are characterized by long periods of quiescence and intermittent activity. These characteristics make predictions, recurrence intervals, or probability very difficult to ascertain.

Probability

Region 3 communities are closest to the Three Sisters and Mt. Jefferson. Middle and South Sisters are the most active of the group. Because geologic history is fragmentary for these volcanoes, the probability of future explosive eruptions is difficult to estimate. Only two explosive episodes have occurred at the South Sister since the ending of the ice age (about 12,000 years ago). Given the fragmentary record, the annual probability of the South and Middle Sister entering a new period of eruptive activity has been estimated from 1 in several thousand to 1 in 10,000.⁵

Similar difficulties complicate predictions of future eruptions at Mt. Jefferson. There have been four eruptive episodes since the end of the Ice Age (within the last 20,000 years). Such a frequency suggests an annual probability of about 1 in 4,000 to 1 in 3,000.⁶

Table 23 below provides further information about probability of volcanic eruptions in Region 3.

⁵ United States Geologic Survey Open File Report 99-437, p.8.

⁶ United States Geologic Survey Open File Report 99-24, p.11.

TABLE 23. PROBABILITY OF VOLCANO-RELATED HAZARDS

VOLCANO-RELATED HAZARDS	COUNTIES						REMARKS
	Benton	Lane	Linn	Marion	Polk	Yamhill	
Tephra (volcanic ash) (annual probability of 1cm or more accumulation from eruptions throughout the Cascade Range)	1 in 1,000 to 1 in 5,000	1 in 1,000	1 in 1,000	1 in 1,000	1 in 1,000 to 1 in 5,000	1 in 1,000 to 1 in 5,000	USGS Open File Report (OFR 97-513) p.9)
Lahar	No Risk	Source: Three Sisters McKenzie River: 3 scenarios: source to Thurston	Source: Mt. Jefferson S. Santiam R. from Mt. Jefferson to Detroit	Source: Mt. Jefferson, N. & S. Santiam rivers from Mt. Jefferson to Detroit	No Risk	No Risk	If the Detroit Lake dam is breached, lahars could reach Mill City, Lyons, and Stayton in Marion County. OFR 99-24 (Maps) Lane County: OFR 99-437 (Map)
Lava flow	No Risk	Source: Three Sisters immediate vicinity	Source: Mt. Jefferson Immediate vicinity	Source: Mt. Jefferson Immediate vicinity	No Risk	No Risk	Mt. Jefferson: OFR 99-24 (Maps), Three Sisters: OFR 99-437 (Maps)
Debris flow / avalanche	No Risk	Source: Three Sisters Proximity	Source: Mt. Jefferson Proximity	Source: Mt. Jefferson Proximity	No Risk	No Risk	Mt. Jefferson: OFR 99-24 (Maps) Three Sisters: OFR 99-437 (Maps)
Pyroclastic flow	No Risk	Source: Three Sisters Proximity	Source: Mt. Jefferson Pamelia & Minto Creeks	Source: Mt. Jefferson Whitewater Cr & S. Fork Santiam	No Risk	No Risk	Mt. Jefferson: OFR 99-24 (Maps) Three Sisters: OFR 99-437 (Maps)

Source: OFR 99-24, OFR 99-437 and OFR 97-513.

The probability that Region 3 will experience volcanic activity is depicted in Table 24 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The probability scores below address the likelihood of a future major emergency or disaster within a specific period of time, as follows:

High = One incident likely within a 10 to 35 year period.

Moderate = One incident likely within a 35 to 75 year period.

Low = One incident likely within a 75 to 100 year period.

In some cases, counties either did not rank the hazard or did not find it to be a significant concern. These cases are noted with a dash (-) in the table below.

TABLE 24. Probability Assessment of Volcano-Related Hazard Events

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Probability	M	L	H	L	L	-

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores

Vulnerability

The region’s vulnerability to volcano-related hazards is depicted in Table 25 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The vulnerability scores address the percentage of population or region assets likely to be affected by a major emergency or disaster, as follows:

High = More than 10% affected

Moderate = 1-10% affected

Low = Less than 1% affected

In some cases, counties either did not rank the hazard or did not find it to be a significant concern. These cases are noted with a dash (-) in the table below.

TABLE 25. Vulnerability Assessment of Volcano-Related Hazard Events

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Vulnerability	L	M	H	M	M	-

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

WINDSTORMS

Characteristics and Brief History

Extreme winds (other than tornadoes) are experienced in all of Oregon's eight regions. The most persistent high winds occur along the Oregon Coast and the Columbia River Gorge; consequently, these areas have special building code standards. This is not the case in the Willamette Valley, although high winds are not uncommon. A majority of the destructive surface winds in Oregon are from the southwest. Under certain conditions, very strong east winds may occur, but these usually are limited to small areas in the vicinity of the Columbia River Gorge or other low mountain passes. The much more frequent and widespread strong winds from the southwest are associated with storms moving onto the coast from the Pacific Ocean. If the winds are from the west, they may be stronger on the coast than in the interior valleys because of the north-south orientation of the Coast Range and Cascades. These mountain ranges obstruct and slow down the westerly surface winds.

The most destructive winds are those which blow from the south, parallel to the major mountain ranges. The Columbus Day Storm of 1962 was a classic example of such a storm. Its effects were so devastating that it has become the benchmark from which other storms are measured. The storm developed off the coast of California and moved from the southwest then turned, coming directly from the south and toward the southern Oregon coast. An historic overview of other significant storms in Region 3 would include those in Table 26.

In addition to windstorms, tornadoes have been recorded in Region 3 since 1887. The storms have occurred during all seasons, as described in Table 27. Fortunately, damage has been slight, and has mostly affected individual farm buildings, orchards, telephone poles and trees.

TABLE 26. SIGNIFICANT WINDSTORMS

DATE	AFFECTED AREA	CHARACTERISTICS
Apr., 1931	Western Oregon	Unofficial wind speeds reported at 78 mph. Damage to fruit orchards and timber.
Nov. 10-11, 1951	Statewide	Widespread damage; transmission and utility lines; Wind speed 40-60 mph; Gusts 75-80 mph
Dec., 1951	Statewide	Wind speed 60 mph in Willamette Valley. 75 mph gusts. Damage to buildings and utility lines.
Dec., 1955	Statewide	Wind speeds 55-65 mph with 69 mph gusts. Considerable damage to buildings and utility lines
Nov., 1958	Statewide	Wind speeds at 51 mph with 71 mph gusts. Every major highway blocked by fallen trees
Oct., 1962	Statewide	Columbus Day Storm; Oregon's most destructive storm to date. 116 mph winds in Willamette Valley. Estimated 84 houses destroyed, with 5,000 severely damaged. Total damage estimated at \$170 million
Mar., 1971	Most of Oregon	Greatest damage in Willamette Valley. Homes and power lines destroyed by falling trees. Destruction to timber in Lane Co.
Nov., 1981	Most of Oregon	Highest winds since 10/62. Wind speed 71 mph in Salem. Marinas, airports and bridges severely damaged
Jan., 1990	Statewide	Heavy rain with winds exceeding 75 mph. Significant damage. One fatality
Dec., 1995	Statewide	Followed path of Columbus Day Storm. Wind speeds 62 mph in Willamette Valley. Damage to trees (saturated soil a factor) and homes. (FEMA-1107-DR-OR)
Nov., 1997	Western Oregon	Wind speed 52 mph in Willamette Valley. Trees uprooted. Considerable damage to small airports.
Feb., 2002	Western Oregon	Strongest storm to strike western Oregon in several years. Many downed power lines (trees); damage to buildings; water supply problems (lack of power). Estimated damage costs: \$6.14 million. (FEMA-1405-DR-OR)
July, 2003	Marion County	\$15,000 in property damage

Source: Taylor, George H., and Ray Hatton, 1999, *The Oregon Weather Book*, p.151-157; and FEMA-1405-DR-OR: February 7, 2002, Hazard Mitigation Team Survey Report, Severe Windstorm in Western Oregon.

Source: Hazards & Vulnerability Research Institute (2007). *The Spatial Hazard Events and Losses Database for the United States*, Version 5.1 [Online Database]. Columbia, SC: University of South Carolina. Available from <http://www.sheldus.org>

Source: U.S. Department of Commerce. National Climatic Data Center. Available from <http://www4.ncdc.noaa.gov/cgi-win/wwwcgi.dll?wwevent~storms>

TABLE 26. SIGNIFICANT WINDSTORMS (con't.)

DATE	AFFECTED AREA	CHARACTERISTICS
December, 2004	Marion, Lane, Polk Counties	\$6,250 in property damage *property damage estimate includes counties outside of Region 3.
December, 2005	Marion, Linn Counties	\$3,000 in property damage
April, 2004	Lane County	\$5,000 in property damage
Jan. 2005	Linn, Marion	Windstorms cause \$6000 of damage in Linn and Marion Counties. A storm total of \$15,000 in damages spread out among, Linn, Marion, Clackamas, Multnomah, and Washington Counties.
Jan., 2006	Yamhill, Marion, Polk	Wind storm with winds up to 58 mph, caused a total of \$500,000 in damages spread out over all four counties and included Clackamas, Columbia, Washington, Multnomah Counties as well.
Feb. 2006	Linn, Marion, Lane, Benton, Polk, Yamhill	Wind storms with gusts up to 77 mph causes \$227,000 in damages in Linn, Lane, Marion, Benton, Polk, and Yamhill Counties. Storm caused damages in region 2 and region 1 as well for a total storm damage of \$575,000.
May 2006	Lane County	\$5,000 in property damage in Eugene, approximately 13,000 customers out of power.
May 2007	Marion	Hail storm causes \$5000 in damages.
March 2008	Marion County	Heavy winds measured at 40 mph causes \$15,000 in damage near Woodburn.

Source: Taylor, George H., and Ray Hatton, 1999, *The Oregon Weather Book*, p.151-157; and FEMA-1405-DR-OR: February 7, 2002, Hazard Mitigation Team Survey Report, Severe Windstorm in Western Oregon.

Source: Hazards & Vulnerability Research Institute (2007). *The Spatial Hazard Events and Losses Database for the United States*, Version 5.1 [Online Database]. Columbia, SC: University of South Carolina. Available from <http://www.sheldus.org>

Source: U.S. Department of Commerce. National Climatic Data Center. Available from <http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms>

TABLE 27. RECORDED TORNADES

DATE	COUNTY	RESULT
January, 1887	Lane	Fences damaged; Livestock losses; Trees up-rooted
November, 1925	Polk	Buildings, barns, and fruit trees damaged
February, 1926	Polk	House, and trees damaged
September, 1938	Linn	Observed in Brownsville. No damage.
December, 1951	Lane	Barn destroyed
January, 1953	Benton	Observed. No damage
March, 1960	Marion	Several farms damaged near Aumsville. Trees uprooted.
May, 1971	Yamhill	House and barn damaged near McMinnville
August, 1975	Lane	Metal building destroyed near Eugene.
August, 1978	Yamhill	Minor damage near Amity
April, 1984	Yamhill	Barn roof destroyed
May, 1984	Lane	Barn and shelter damaged near Junction City
November, 1989	Lane	Telephone poles and trees up-rooted near Eugene
November, 1991	Marion	Barn damaged near Silverton
September 2007	Linn County	A tornado rated at F0 near Albany and Lebanon causes \$20,000 in damage to buildings and \$22,000 to crops.
December 2010	Marion County	A tornado rated at F2 damaged 50 buildings in the community of Aumsville, causing a total of \$1.2 million in property damage.

Source: George Taylor and Ray Hatton, The Oregon Weather Book (1999), pp.130-137

Source: U.S. Department of Commerce. National Climatic Data Center. Available from <http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms>

Probability

The recurrence interval of a windstorm on the order of the Columbus Day Storm is about 100 years.⁷ A windstorm on the order of the February 7, 2002 event has a 10 to 12 year recurrence interval.

The probability that Region 3 will experience windstorms is depicted in Table 28 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The probability scores below address the likelihood of a future major emergency or disaster within a specific period of time, as follows:

High = One incident likely within a 10 to 35 year period.

Moderate = One incident likely within a 35 to 75 year period.

Low = One incident likely within a 75 to 100 year period.

⁷ Personal contact, George Taylor, State Climatologist.

TABLE 28. Probability Assessment of Windstorms

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Probability	H	H	H	H	H	L

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

Vulnerability

Many buildings, utilities, and transportation systems within Region 3 are vulnerable to wind damage. This is especially true in open areas, such as natural grasslands or farmlands. It also is true in forested areas, along tree-lined roads and electrical transmission lines, and on residential parcels where trees have been planted or left for aesthetic purposes. Structures most vulnerable to high winds include insufficiently anchored manufactured homes and older buildings in need of roof repair. The Oregon Department of Administrative Service’s inventory of state-owned and operated buildings includes an assessment of roof conditions as well as the overall condition of the structure. Oregon Emergency Management has arranged this information by county.

Fallen trees are especially troublesome. They can block roads and rails for long periods, which can affect emergency operations. In addition, up-rooted or shattered trees can down power and/or utility lines and effectively bring local economic activity and other essential facilities to a standstill. Much of the problem may be attributed to a shallow or weakened root system in saturated ground. Many roofs have been destroyed by uprooted ancient trees growing next to a house. In some situations, strategic pruning may be the answer. Prudent counties will work with utility companies in identifying problem areas and establishing a tree maintenance and removal program.

Bridges, which may be closed during periods of high wind, are an additional consideration.

The region’s vulnerability to windstorms is depicted in Table 29 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The vulnerability scores address the percentage of population or region assets likely to be affected by a major emergency or disaster, as follows:

High = More than 10% affected

Moderate = 1-10% affected

Low = Less than 1% affected

TABLE 29. Vulnerability Assessment of Windstorms

	Benton	Lane Inland)	Linn	Marion	Polk	Yamhill
Vulnerability	M	M	M	H	H	M

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

WINTERSTORM

Characteristics and Brief History

Severe winter weather in Region 3 is characterized by extreme cold, snow, ice, and sleet. Although such conditions may be expected in the Cascade Mountains and eastern Oregon, they are considered to be unusual in the Willamette Valley. This is where the problem begins. Some Region 3 communities are unprepared, financially and otherwise, although outbreaks of very cold air occur with some degree of regularity (Table 30). Severe weather conditions do not last long in Region 3, and this is cause to relegate winter-preparedness to a low priority.

TABLE 30. SEVERE WINTERSTORMS

DATE	LOCATION	CHARACTERISTICS
Dec., 1861	Statewide	Snowfall varied between 1 and 3 feet. Did not leave Willamette Valley floor until late February
Dec., 1864	Willamette Valley and Columbia Basin	Heavy snowfall. Albany (Linn County) received 16 inches in 1 day.
Jan., 1916	Statewide	Two snow storms, each totaling 5 inches or more
Dec., 1919	Corvallis (Benton County)	Corvallis received 22 inches of snow and set an all-time low temperature record of 14 degrees F
Jan.- Feb., 1937	Statewide	Heavy snow throughout the Willamette Valley. Dallas (Polk Co.) had 24 inches; Salem (Marion County) had 25 inches
Jan., 1950	Statewide	Heaviest snowfall since 1890. Many highway closures. Considerable property damage.
Jan., 1956	Western Oregon	Packed snow became ice. Many automobile accidents throughout the region
Mar., 1960	Statewide	Snowfall: 3-12 inches, depending on location. More than 100 snow related accidents in Marion County
Jan., 1969	Statewide	Lane County surpassed old snowfall record. Eugene (Lane Co.) had a total snow depth of 47 inches. Three to \$4 million in property damage
Jan., 1980	Statewide	A series of storms bringing snow, ice, wind, and freezing rain. Six fatalities.
Feb., 1985	Statewide	Western valleys received between 2-4 inches of snow; Massive power failures (tree limbs broke power lines)
Dec., 1985	Willamette Valley	Heavy snowfall throughout valley
Mar., 1988	Statewide	Strong winds and heavy snow

Source: Taylor, George and Ray Hatton, 1999, *The Oregon Weather Book*, p.118-122.

Source: Oregon Department of Transportation, 2008, State Natural Hazard Mitigation Plan, Winter Storm Chapter.

TABLE 30. SEVERE WINTERSTORMS Cont'd

Feb., 1989	Statewide	Heavy snowfall and record low temperatures. Salem (Marion Co.) received 9 inches
Feb., 1990	Statewide	Average snowfall from one storm about 4 inches (Willamette Valley)
Dec., 1992	Western Oregon	Heavy snow. Interstate Highway closed.
Feb., 1993	Western Oregon	Record snowfall at Salem airport
Winter 1998-9	Statewide	Series of storms. One of the snowiest winters in Oregon history
Dec., 2003 – Jan., 2004	Statewide	Wet snow blanketed highways in the Willamette Valley, causing power lines and trees to topple. Oregon 34 east of Philomath was closed for 30 hours January 5 and 6 while crews removed trees. Presidential disaster declaration for 30 of Oregon's 36 counties.
Jan. – Feb. 2008	Marion County	A series of vigorous winter storms brought record setting snow accumulation to Detroit, Oregon. Three dozen Oregon National Guard personnel were called in to help with snow removal in Detroit and Idanha. The towns received over 12 feet of snow in several weeks.

Source: Taylor, George and Ray Hatton, 1999, *The Oregon Weather Book*, p.118-122.

Source: Oregon Department of Transportation, 2008, State Natural Hazard Mitigation Plan, Winter Storm Chapter.

Probability

Severe winter storms occur about every four years in this region. The probability that Region 3 will experience winterstorms is depicted in Table 31 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The probability scores below address the likelihood of a future major emergency or disaster within a specific period of time, as follows:

High = One incident likely within a 10 to 35 year period.

Moderate = One incident likely within a 35 to 75 year period.

Low = One incident likely within a 75 to 100 year period.

TABLE 31. Probability Assessment of Winterstorms

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Probability	H	H	H	H	-	M

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

Vulnerability

The region’s vulnerability to winterstorms is depicted in Table 32 below. These scores are based on an analysis of risk conducted by county emergency program managers, usually with the assistance of a team of local public safety officials.

The vulnerability scores address the percentage of population or region assets likely to be affected by a major emergency or disaster, as follows:

High = More than 10% affected

Moderate = 1-10% affected

Low = Less than 1% affected

TABLE 32. Vulnerability Assessment of Winterstorms

	Benton	Lane (Inland)	Linn	Marion	Polk	Yamhill
Vulnerability	M	H	H	H	-	M

Source: Oregon Emergency Management, November 2008, County Hazard Analysis Scores.

REGION 3
Mid/Southern Willamette Valley¹
State Owned Building Inventory

¹ Benton, Lane, Linn, Marion, Polk, and Yamhill counties

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
							Prob.	Vuln.	Prob.	Vuln.	Prob.	Vuln.	Prob.	Vuln.	Prob.	Vuln.	Prob.	Vuln.
Dept of Transportation	CORVALLIS MS OFFICE BLDG	Benton	825,578	412,788	1,238,366	OFFICE/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Dept of Transportation	Corvallis Maint Station Bldg	Benton	1,535,434	767,717	2,303,151	Maintenance Station Bldg	M	H	H	M	H	M	M	L	H	M	H	M
Fish & Wildlife	SW WATERSHED DIST OFF & STORAGE	Benton	1,530,000	750,000	2,280,000	ADMINISTRATIVE	M	H	H	M	H	M	M	L	H	M	H	M
Military Dept	SMITH HALL	Benton	2,278,885	5,000	2,283,885	ARMORY	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	ORCHARD COURT APTS	Benton	5,524,936	2,530	5,527,466	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	APPERSON HALL	Benton	4,855,290	209,600	5,064,890	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MERRYFIELD HALL	Benton	4,509,285	922,860	5,432,145	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GRAF HALL	Benton	6,235,680	1,058,784	7,294,464	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	COVELL HALL	Benton	6,159,285	597,192	6,756,477	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	BATCHELLER HALL	Benton	3,434,640	33,210	3,467,850	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	DEARBORN HALL	Benton	10,635,075	1,923,876	12,558,951	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GILBERT ADDITION	Benton	12,051,312	735,629	12,786,941	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	SHEPARD HALL	Benton	1,027,224	21,110	1,048,334	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GLEESON HALL	Benton	10,650,003	1,026,247	11,676,250	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	BEXEL HALL	Benton	9,669,000	213,977	9,882,977	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	ROGERS HALL	Benton	9,131,265	1,510,249	10,641,514	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MILNE COMPUTER CENTER	Benton	6,416,046	2,738,645	9,154,691	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	AZALEA HOUSE	Benton	1,200,320	30,309	1,230,629	RESIDENCE & DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	BENTON HALL	Benton	3,983,760	289,087	4,272,847	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	EDUCATION HALL	Benton	6,605,280	18,799	6,624,079	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	PHARMACY	Benton	11,295,102	1,186,791	12,481,893	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GLADYS VALLEY GYMNASIICS CTR	Benton	3,341,250	36,825	3,378,075	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GILKEY HALL	Benton	3,600,135	28,249	3,628,384	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Oregon State Univ	STRAND AGRICULTURE HALL	Benton	19,138,515	796,957	19,935,472	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	PHYSICAL PLANT SHOPS	Benton	5,280,000	420,165	5,700,165	PHYSICAL PLANT	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	PHYSICAL PLANT WAREHOUSE	Benton	4,870,800	50,276	4,921,076	PHYSICAL PLANT	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MCALEXANDER FIELD HOUSE	Benton	9,522,645	31,427	9,554,072	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	HEATING PLANT	Benton	10,476,800	40,094	10,516,894	PHYSICAL PLANT	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	CASCADE HALL	Benton	6,487,800	726,634	7,214,434	INSTRUCTIONAL SERVICE	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	PLAGEMAN STUDENT HEALTH CTR	Benton	5,184,135	101,395	5,285,530	HEALTH SERVICES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	BALLARD EXTENSION HALL	Benton	7,591,815	45,946	7,637,761	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	BATES HALL	Benton	1,547,744	89,550	1,637,294	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WILKINSON HALL	Benton	10,004,775	2,627,340	12,632,115	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	EAST GREENHOUSE	Benton	5,336,265	8,006	5,344,271	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WITHYCOMBE HALL	Benton	13,260,720	710,322	13,971,042	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	CROP SCIENCES	Benton	15,865,668	1,128,881	16,994,549	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MILAM HALL	Benton	18,100,170	720,130	18,820,300	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GILMORE HALL	Benton	1,424,544	589,996	2,014,540	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WOMENS	Benton	14,435,190	952,235	15,387,425	PHYSICAL EDUCATION	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	FAIRBANKS HALL	Benton	6,261,090	381,138	6,642,228	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	HOVLAND HALL	Benton	1,352,032	313,451	1,665,483	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	SACKETT HALL	Benton	15,649,920	5,333	15,655,253	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	HOUSING SERVICE	Benton	2,580,600	271,718	2,852,318		M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	RADIATION CENTER	Benton	13,019,097	2,266,279	15,285,376	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	SNELL HALL	Benton	17,690,145	516,319	18,206,464	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WALDO HALL	Benton	12,161,160	1,553,211	13,714,371	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Oregon State Univ	LANGTON HALL	Benton	15,893,130	110,009	16,003,139	PHYSICAL EDUCATION	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MORELAND HALL	Benton	4,682,700	31,499	4,714,199	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GOSS STADIUM	Benton	2,077,651	58,148	2,135,799	PHYSICAL EDUCATION	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WEATHERFORD HALL	Benton	11,559,900	14,348	11,574,248	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WEATHERFORD CAFETERIA	Benton	3,270,194	8,000	3,278,194	DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	BUXTON HALL DORM 4	Benton	6,763,680	7,957	6,771,637	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	POLING HALL DORM 1	Benton	6,342,380	21,973	6,364,353	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	OSWALD WEST CAFETERIA	Benton	3,564,876	35,992	3,600,868	DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	CAUTHORN OSWALD WEST DORM 5	Benton	6,423,670	19,321	6,442,991	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	HECKERT LODGE	Benton	1,528,230	19,160	1,547,390	RESIDENCE & DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	NAVY ROTC ARMORY	Benton	1,202,432	12,877	1,215,309	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	REED LODGE	Benton	1,499,080	19,057	1,518,137	RESIDENCE & DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	HAWLEY HALL DORM 3	Benton	6,441,380	17,704	6,459,084	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WASHINGTON WAY TENNIS COURTS	Benton	1,212,392	0	1,212,392		M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WIEGAND HALL	Benton	15,822,261	1,637,952	17,460,213	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WEST GREENHOUSE	Benton	1,557,270	87,414	1,644,684	AGRICULTURE	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	HINSDALE WAVE RESEARCH LAB	Benton	9,075,000	3,515,175	12,590,175	OTHER	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	HAZARDOUS WASTE FACILITY	Benton	1,686,370	252,956	1,939,326		M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	INDOOR PRACTICE FACILITY	Benton	6,018,748	118,368	6,137,116	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	VALLEY FOOTBALL CTR	Benton	1,395,504	542,832	1,938,336	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	DIXON RECREATION CTR	Benton	16,612,200	95,760	16,707,960	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	DRYDEN HALL	Benton	3,798,135	778,962	4,577,097	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Oregon State Univ	ROSENFELD LABORATORY	Benton	2,354,220	62,261	2,416,481	INSTRUCTION/ADMIN/RES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MANCHESTER RIDING ARENA	Benton	4,405,500	28,124	4,433,624	AGRICULTURE RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MCNARY HALL	Benton	7,985,340	22,979	8,008,319	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WILSON HALL	Benton	8,041,550	5,379	8,046,929	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	CALLAHAN HALL	Benton	7,996,780	10,280	8,007,060	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MCNARY DINING	Benton	4,051,948	50,400	4,102,348	DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	EVERY HOUSE	Benton	1,352,890	31,153	1,384,043	RESIDENCE & DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	DIXON HOUSE	Benton	1,266,540	31,154	1,297,694	RESIDENCE & DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	FINLEY HALL	Benton	9,322,610	30,869	9,353,479	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	ARNOLD CAFETERIA	Benton	3,658,000	97,759	3,755,759	DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	BLOSS HALL	Benton	9,323,050	12,215	9,335,265	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	COLLEGE INN	Benton	13,200,000	11,728	13,211,728	RESIDENCE HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	LASELLS STEWART CTR	Benton	7,129,815	92,155	7,221,970	OTHER	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	CH2M HILL ALUMNI CTR	Benton	7,425,000	277,737	7,702,737		M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	OXFORD HOUSE	Benton	1,050,940	15,252	1,066,192	RESIDENCE & DINING HALL	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WF SHEEP RESEARCH	Benton	1,442,700		1,442,700	AGRICULTURE	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	DAIRY BARN 0 DC	Benton	1,487,250	538,493	2,025,743	AGRICULTURE	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	HF FIELD RESEARCH LAB	Benton	3,397,205	35,719	3,432,924	AGRICULTURE	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	SINNHUBER AQUATIC RESEARCH LAB	Benton	2,505,600	631,328	3,136,928	OTHER	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	SALMON DISEASE LAB	Benton	1,348,500	40,795	1,389,295	INSTRUCTION/RESEARCH	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	OAK CREEK PROPERTY SERVICES	Benton	8,579,670	472,810	9,052,480	OTHER	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	FOUNDATION CTR	Benton	1,056,000	158,834	1,214,834	OTHER	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MEMORIAL UNION	Benton	5,065,500	66,065	5,131,565	MISC RENTALS	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MEMORIAL UNION	Benton	11,380,050	948,286	12,328,336	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MEMORIAL UNION	Benton	15,751,560	0	15,751,560	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Oregon State Univ	RESER STADIUM	Benton	1,127,632	2,030,083	3,157,715	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	RESER STADIUM	Benton	1,507,880	0	1,507,880	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GILL COLISEUM	Benton	5,429,985	0	5,429,985	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	KELLEY ENGINEERING CENTER	Benton	30,520,238	4,578,036	35,098,274	INSTRUCTION/RESEARCH	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GILBERT HALL	Benton	22,699,404	4,695,947	27,395,351	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GILBERT HALL	Benton	22,699,404	4,695,947	27,395,351	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	WENIGER HALL	Benton	57,624,021	6,205,407	63,829,428	INSTRUCTION/ADMIN/RES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	NASH HALL	Benton	28,789,488	2,693,059	31,482,547	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	OWEN HALL	Benton	17,244,591	3,741,323	20,985,914	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	KIDDER HALL	Benton	20,750,184	1,160,927	21,911,111	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	VALLEY LIBRARY	Benton	51,347,751	76,242,900	127,590,651	LIBRARY	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	ADMINISTRATIVE SERVICES	Benton	22,457,820	3,095,231	25,553,051	OFFICE	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	BURT HALL	Benton	14,990,157	20,522,002	35,512,159	CLASSROOM	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	CORDLEY HALL	Benton	64,489,971	18,675,204	83,165,175	INSTRUCTION/ADMIN/RES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	AG & LIFE SCIENCES	Benton	49,805,301	13,691,621	63,496,922	INSTRUCTION/ADMIN/RES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	PEAVY HALL	Benton	22,937,460	1,432,405	24,369,865	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	RICHARDSON HALL	Benton	26,481,000	2,459,862	28,940,862	INSTRUCTION/ADMIN/RES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	MAGRUDER HALL	Benton	20,779,395	1,728,409	22,507,804	INSTRUCTION/ADMIN	M	H	H	M	H	M	M	L	H	M	H	M
Oregon State Univ	GILL COLISEUM	Benton	30,583,245	1,442,519	32,025,764	STUDENT ACTIVITIES	M	H	H	M	H	M	M	L	H	M	H	M
Oregon Youth Authority	CORVALLIS HOUSE	Benton	3,878,588	81,414	3,960,002	SECURE BUILDING	M	H	H	M	H	M	M	L	H	M	H	M
Univ of Oregon	Many Nations Longhouse	Lane	1,162,140	0	1,162,140		L	M	H	M	H	H	M	L	H	M	H	H
Dept of Administrative Services	EUGENE ST OFFICE BLDG	Lane	4,426,223	5,006,000	9,432,223	OFFICE	L	M	H	M	H	H	M	L	H	M	H	H
Dept of Administrative Services	SPRINGFIELD MOTOR POOL	Lane	2,463,056	49,962	2,513,018	MOTOR POOL	L	M	H	M	H	H	M	L	H	M	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Dept of Transportation	GATEWAY OFFICE	Lane	1,640,856	820,428	2,461,284	OFFICE/ADMIN	L	M	H	M	H	H	M	L	H	M	H	H
Dept of Transportation	Eugene MS Old Off Bldg	Lane	800,592	400,296	1,200,888	Office, Administrative	L	M	H	M	H	H	M	L	H	M	H	H
Dept of Transportation	Eugene MS Old Off Bldg	Lane	800,592	400,296	1,200,888	Office, Administrative	L	M	H	M	H	H	M	L	H	M	H	H
Dept of Transportation	Glenwood MS Maintenance	Lane	755,158	377,579	1,132,737	Maintenance Station Bldg	L	M	H	M	H	H	M	L	H	M	H	H
Employment Dept	EUGENE EMPLOYMENT BLDG	Lane	3,165,700	1,000,000	4,165,700	OFFICE	L	M	H	M	H	H	M	L	H	M	H	H
Military Dept	COTTAGE GROVE ARMORY	Lane	5,288,649	8,211	5,296,860	ARMORY	L	M	H	M	H	H	M	L	H	M	H	H
Military Dept	EUGENE ARMORY	Lane	5,369,001	8,524	5,377,525	ARMORY	L	M	H	M	H	H	M	L	H	M	H	H
Military Dept	EUGENE ARMORY ADDITIONAL	Lane	1,410,487	5,000	1,415,487	ARMORY	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	CHILES BUSINESS CENTER	Lane	1,390,224	157,727	1,547,951	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	JAMES H GILBERT HALL	Lane	13,352,790	374,675	13,727,465	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	CONDON HALL	Lane	6,814,005	2,353,279	9,167,284	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	DEADY HALL	Lane	4,197,105	480,381	4,677,486	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	CHAPMAN HALL	Lane	3,805,230	228,187	4,033,417	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	EDUCATION	Lane	5,358,870	1,213,679	6,572,549	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	PRINCE LUCIEN CAMPBELL HALL	Lane	17,627,115	2,335,113	19,962,228	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	FRIENDLY HALL	Lane	6,461,895	607,454	7,069,349	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	GERLINGER HALL	Lane	10,460,010	724,049	11,184,059	ACADEMIC/PE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	HAYWARD FIELD GRANDSTAND	Lane	7,416,750	45,935	7,462,685	ATHLETICS	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	UNIVERSITY HEALTH CENTER	Lane	10,600,317	517,189	11,117,506	MEDICAL	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	VOLCANOLOGY	Lane	1,716,088	1,408,056	3,124,144	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	JOHNSON HALL	Lane	5,144,040	289,917	5,433,957	ADMINISTRATIO N	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	ALLEN HALL	Lane	6,333,195	1,194,745	7,527,940	ACADEMIC/SER VICE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	FENTON HALL	Lane	4,568,355	534,878	5,103,233	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	Jordan Schnitzer MUSEUM OF ARTS	Lane	8,211,567	527,298	8,738,865	ARTS (UNDER RENOVATION)	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	MUSIC	Lane	11,625,240	2,329,126	13,954,366	ACADEMIC/ART S	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	CLINICAL SERVICES	Lane	12,420,954	342,952	12,763,906	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	MCKENZIE HALL	Lane	13,560,855	516,420	14,077,275	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	VILLARD HALL	Lane	7,387,545	55,913	7,443,458	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Univ of Oregon	HEATING & POWER PLANT	Lane	9,306,000	26,896	9,332,896	MAINTENANCE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	COLUMBIA HALL	Lane	7,171,164	214,173	7,385,337	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	ONYX BRIDGE	Lane	14,514,591	1,682,704	16,197,295	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	COMPUTING CENTER	Lane	6,134,856	5,881,332	12,016,188	ADMINISTRATIVE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	EDUCATION ADDITION	Lane	1,490,808	266,649	1,757,457	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	OREGON HALL	Lane	13,490,565	5,377,075	18,867,640	ADMINISTRATIVE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	DESCHUTES HALL	Lane	8,447,985	281,524	8,729,509	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	CASCADE HALL	Lane	13,552,812	1,968,528	15,521,340	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	MUSEUM OF NATURAL & CULTURAL HISTORY	Lane	1,093,312	2,723,322	3,816,634	LIBRARY/MUSEUM	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	COVERED TENNIS COURTS	Lane	5,940,000	0	5,940,000	ATHLETICS/RECREATION	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	GERLINGER ANNEX	Lane	8,816,445	324,416	9,140,861	ACADEMIC/PE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	BOWERMAN FAMILY	Lane	1,193,632	233,717	1,427,349	ATHLETIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	BEAN HALL WEST	Lane	7,022,070	187,817	7,209,887	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	BEAN HALL EAST	Lane	10,000,848	25,174	10,026,022	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	HENDRICKS HALL	Lane	4,359,465	331,472	4,690,937	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	STRAUB MEMORIAL UNION	Lane	12,832,875	5,726,796	18,559,671	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	EARL HALL	Lane	9,261,450	41,065	9,302,515	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	SUSAN CAMPBELL HALL	Lane	3,434,970	0	3,434,970	ADMINISTRATIVE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	CARSON HALL	Lane	10,339,450	811,173	11,150,623	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	WALTON HALL #1	Lane	8,696,600	258,715	8,955,315	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	WALTON HALL #2	Lane	8,588,800	81,434	8,670,234	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	H P BARNHART HALL	Lane	15,244,684	2,545,944	17,790,628	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	HAMILTON WEST HALL #1	Lane	12,541,856	386,697	12,928,553	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	HAMILTON EAST HALL #2	Lane	11,324,720	186,195	11,510,915	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	RILEY HALL	Lane	2,682,163	11,000	2,693,163	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Univ of Oregon	Military Science/LERC	Lane	916,256	214,573	1,130,829	Instruction, Admin, Research	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	RAINIER BLDG	Lane	1,020,800	799,949	1,820,749	ADMINISTRATIO	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	MILLRACE STUDIO 3	Lane	1,263,064	4,808	1,267,872	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	FINE ARTS	Lane	3,621,090	74,583	3,695,673	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	FACILITIES SERVICES WAREHOUSE & SHOP	Lane	5,892,315	3,035,226	8,927,541	MAINTENANCE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	STUDENT INDOOR TENNIS COURT	Lane	6,930,000	0	6,930,000	STUDENT ACTIVITIES	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	East Campus Grad Village	Lane	1,409,375	0	1,409,375		L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	EAST CAMPUS GRAD VILLAGE	Lane	1,409,375	0	1,409,375		L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	AGATE HALL	Lane	7,130,475	860,283	7,990,758	INSTRUCTION	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	EC CARES	Lane	859,545	311,908	1,171,453	Admin, daycare	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	Moss Street Childrens Center	Lane	2,893,105	82,531	2,975,636	Admin, Childcare	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	ED MOSHOFSKY SPORT CENTER	Lane	17,874,450	418,322	18,292,772	ATHLETICS	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	DDSS	Lane	638,352	407,134	1,045,486	Instruction, Admin, research	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	BAKER DOWNTOWN CENTER	Lane	5,405,895	1,910,274	7,316,169	ADMINISTRATIO	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	AUTZEN STADIUM	Lane	11,450,098	254,358	11,704,456	ATHLETICS	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	ERB MEMORIAL UNION	Lane	9,829,050	3,624,660	13,453,710	STUDENT SERVICES	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	ZEBRA FISH INTERNATIONAL RESOURCE CTR	Lane	1,450,000	1,068,394	2,518,394	RESEARCH	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	inactive	Lane	638,352	407,134	1,045,486	Instruction, Admin, research	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	SPENCER VIEW UNIT 2	Lane	1,258,730	0	1,258,730	HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	SPENCER VIEW UNIT 3	Lane	1,244,540	0	1,244,540	HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	SPENCER VIEW UNIT 4	Lane	1,244,540	0	1,244,540	HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	SPENCER VIEW COMMONS	Lane	3,613,170	381,269	3,994,439	HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	inactive	Lane	4,305,345	0	4,305,345		L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	LAWRENCE HALL	Lane	25,030,005	190,889	25,220,894	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	KNIGHT LIBRARY	Lane	107,247,231	103,015,593	210,262,824	LIBRARY	L	M	H	M	H	H	M	L	H	M	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Univ of Oregon	MCARTHUR COURT	Lane	21,453,795	543,931	21,997,726	ATHLETICS	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	ESSLINGER HALL	Lane	33,645,066	1,054,359	34,699,425	ACADEMIC/REC /ATHLETICS	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	CASANOVA																	
Univ of Oregon	ATHLETIC CENTER	Lane	26,136,201	2,057,230	28,193,431	ATHLETICS	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	PACIFIC HALL	Lane	33,151,755	12,007,301	45,159,056	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	KLAMATH HALL	Lane	48,358,674	22,872,790	71,231,464	WAREHOUSE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	HUESTIS HALL	Lane	17,123,925	4,996,965	22,120,890	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	STREISINGER HALL	Lane	12,109,461	140,768,594	152,878,055	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	WILLAMETTE HALL	Lane	33,265,050	10,223,381	43,488,431	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	WILLIAM KNIGHT LAW CENTER	Lane	25,988,490	15,430,368	41,418,858	ACADEMIC	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	STUDENT RECREATION CENTER	Lane	24,446,070	569,702	25,015,772	PE	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	WESTMORELAND VILLAGE	Lane	28,600,000	524,549	29,124,549	STUDENT HOUSING	L	M	H	M	H	H	M	L	H	M	H	H
Univ of Oregon	ERB MEMORIAL UNION	Lane	36,521,667	0	36,521,667	STUDENT SERVICES	L	M	H	M	H	H	M	L	H	M	H	H
Dept of Transportation	ALBANY NEW MS BLDG	Linn	1,623,203	811,601	2,434,804	MAINT STATION BLDG	H	H	H	M	H	H	-	-	H	M	H	H
Dept of Transportation	Sweet Home Maint Station Bldg	Linn	1,012,014	506,007	1,518,021	Maintenance Station Bldg	H	H	H	M	H	H	-	-	H	M	H	H
Dept of Transportation	Santiam Jct Maint Station Bldg	Linn	5,016,503	2,508,252	7,524,755	Maintenance Station Bldg	H	H	H	M	H	H	-	-	H	M	H	H
Military Dept	ALBANY ARMORY	Linn	2,725,143	0	2,725,143	ARMORY	H	H	H	M	H	H	-	-	H	M	H	H
Oregon Youth Authority	OAK CREEK YCF	Linn	12,657,600	425,133	13,082,733	CORRECTION FACILITY	H	H	H	M	H	H	-	-	H	M	H	H
Parks & Recreation	THOMPSONS MILL MILL BUILDING	Linn	3,498,900	450,000	3,948,900	LIVING HISTORY MUSEUM AND INTERPRETIVE CENTER	H	H	H	M	H	H	-	-	H	M	H	H
Dept of Administrative Services	COMMERCE	Marion	3,235,933	10,000	3,245,933	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	JUSTICE	Marion	12,982,606	10,000	12,992,606	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	GENERAL SERVICES	Marion	5,717,210	5,746,180	11,463,390	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Dept of Administrative Services	AGRICULTURE	Marion	13,752,289	11,000	13,763,289	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	EXECUTIVE BLDG	Marion	7,793,555	1,434,350	9,227,905	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	PRINT PLANT	Marion	5,596,884	753,867	6,350,751	PRINT PRODUCTION	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	ARCHIVES	Marion	13,724,725	12,000	13,736,725	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	PUBLIC UTILITY BLDG	Marion	10,863,907	12,000	10,875,907	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	EXECUTIVE RESIDENCE	Marion	916,792	357,703	1,274,495	GOVERNORS RESIDENCE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	HEATING PLANT	Marion	2,891,353	500,000	3,391,353	WAREHOUSE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	SALEM MOTOR POOL	Marion	5,166,411	205,988	5,372,399	MOTOR POOL	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	PROPERTY DISTRIBUTION CTR	Marion	1,026,800	166,183	1,192,983	WAREHOUSE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	EMERGENCY COORDINATION CTR	Marion	6,497,034	10,000	6,507,034	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	Central Computer Facility	Marion	17,000,000	0	17,000,000	Office/ Computer Center	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	FERRY ST PARKING	Marion	1,769,709	228,050	1,997,759	PARKING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	EXEC PARKING STRUCTURE	Marion	1,677,939	500	1,678,439	PARKING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	STATE LIBRARY	Marion	14,780,195	5,222,007	20,002,202	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	PUBLIC SERVICE BLDG	Marion	22,991,687	203,000	23,194,687	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Dept of Administrative Services	LABOR & INDUSTRIES BLDG	Marion	23,648,337	13,900	23,662,237	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	REVENUE BLDG	Marion	31,281,710	10,421,075	41,702,785	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	HUMAN SERVICES BLDG	Marion	40,326,655	7,450	40,334,105	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	NORTH MALL OFFICE BLDG	Marion	23,021,440	13,300	23,034,740	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	EMPLOYMENT BLDG	Marion	14,201,823	14,750	14,216,573	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Administrative Services	CAPITOL MALL PARKING STRUCTURE	Marion	23,660,378	25,000	23,685,378	PARKING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Aviation	Oregon Department of Aviation Office	Marion	2,100,000	240,000	2,340,000	office/shop/hangar	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	WAREHOUSE	Marion	987,840	65,021	1,052,861	WAREHOUSE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	MAIN FACILITY/DORM	Marion	4,016,250	119,043	4,135,293	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	ADMINISTRATION	Marion	4,012,200	205,771	4,217,971	ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	RECREATION FIELD HOUSE	Marion	4,651,200	21,998	4,673,198	RECREATION	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	DORMITORY/1 DORM	Marion	3,165,300	2,948	3,168,248	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	INTERMEDIATE	Marion	4,747,950	691,250	5,439,200	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	CELL BLOCK A	Marion	4,537,350	61,844	4,599,194	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	INTENSIVE MGMT UNIT	Marion	12,071,700	209,294	12,280,994	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	CELL BLOCK C	Marion	9,215,100	1,700	9,216,800	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	MOTOR POOL	Marion	1,885,500	224,015	2,109,515	AUTO REPAIR/STORAGE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	SEGREGATION/ISOLATION CELL UNIT	Marion	4,212,000	2,750	4,214,750	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	CELL BLOCK E	Marion	13,716,000	4,055	13,720,055	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	BOILERHOUSE	Marion	2,088,000	26,625	2,114,625	BOILERS	H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Dept of Corrections	DIETARY/HOSPITAL	Marion	10,238,400	595,187	10,833,587	HEALTH SERVICES	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	CENTRAL FREEZE	Marion	997,975	8,865	1,006,840		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	CENTRAL FREEZER	Marion	1,814,500	8,865	1,823,365	FZN FOOD STORAGE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	VOCATIONAL TRAINING	Marion	6,615,000	565,722	7,180,722	TRAINING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	UPHOLSTERY SHOP/FURNITURE	Marion	4,477,500	0	4,477,500	UPHOLSTERY OF FURNITURE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	LAUNDRY/FURNITURE FACTORY	Marion	11,947,275	0	11,947,275	LAUNDRY/FURNITURE BUILDING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	METAL SHOP	Marion	4,657,275	0	4,657,275	METRAL PRODUCTS MANUFACTURING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	CELL BLOCK D	Marion	13,716,000	2,995	13,718,995	HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	HOUSING UNIT 1	Marion	2,688,400	32,730	2,721,130	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	ADMINISTRATION	Marion	2,715,000	258,601	2,973,601	ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	HOUSING UNIT 11	Marion	3,159,200	31,834	3,191,034	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	HOUSING UNIT 13	Marion	1,297,600	15,387	1,312,987	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	MULTIPURPOSE	Marion	3,260,000	53,108	3,313,108	MULTIPURPOSE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	VOCATIONAL TRAINING	Marion	7,916,200	85,040	8,001,240	TRAINING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	HOUSING UNIT 2	Marion	2,278,400	9,850	2,288,250	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	PHYSICAL PLANT & SHOPS	Marion	1,574,000	113,371	1,687,371	MAINTENANCE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	UTILITY TUNNELS	Marion	3,644,800	17,678	3,662,478	UTILITY RUNS	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	HOUSING UNIT 3	Marion	2,352,400	8,216	2,360,616	INMATE HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	WAREHOUSE	Marion	1,233,000	184,123	1,417,123	WAREHOUSE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	HEATING PLANT	Marion	1,141,600	24,738	1,166,338	HEATING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	HOUSING UNIT 4	Marion	3,159,200	9,959	3,169,159	HOUSING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	ADJUSTMENT/CANTEEN/HEARINGS	Marion	1,708,800	33,393	1,742,193		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	INFIRMARY/DENTAL OFFICE	Marion	940,000	91,657	1,031,657		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	EDUCATION DEPT	Marion	1,616,600	35,410	1,652,010	INMATE EDUCATION	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	FOOD SERVICE/LIBRARY/HOBBY SHOP	Marion	5,430,400	115,579	5,545,979		H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Dept of Corrections	CHAPEL/BARBER SHOP/VISITING RM	Marion	2,430,675	37,402	2,468,077		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	MAIN FACILITY	Marion	3,366,300	528,896	3,895,196		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	MULTIPURPOSE PROGRAM	Marion	1,400,000	37,333	1,437,333	ADMIN PROGRAMS	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	MAIN FACILITY	Marion	12,491,850	322,709	12,814,559	INMATE HOUSING/OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	MAINTENANCE	Marion	1,224,000	104,849	1,328,849		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	UPHOLSTERY SHOP/FURN FACTORY	Marion	5,193,900	0	5,193,900	CHAIR MANUFACTURING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	LAUNDRY/FURN FACTORY	Marion	13,858,839	0	13,858,839	FURN MANUFACTURING/LAUNDRY	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Corrections	DISTRIBUTION CENTER	Marion	12,585,600	8,305,483	20,891,083	DISTRIBUTION CENTER	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	KITCHEN/DINING	Marion	2,837,179	15,000	2,852,179	KITCHIN/DINING	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	VOCATIONAL UNIT/HIG	Marion	3,448,743	72,069	3,520,812	SCHOOL	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	HOWARD HALL GIRLS	Marion	3,894,803	38,125	3,932,928	DORM	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	CLASSROOM BLDG	Marion	6,211,439	10,000	6,221,439	SCHOOL/MEDIA CTR	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	IRVINE HALL BOYS DORM	Marion	5,438,400	38,125	5,476,525	DORM	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	GYM/SWIMMING POOL	Marion	3,066,385	32,077	3,098,462	GYM	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	MULTIPURPOSE/GYM	Marion	3,309,438	60,000	3,369,438	GYM	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	PRIMARY DORM	Marion	6,580,800	19,974	6,600,774	PRESCHOOL/PRIMARY	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	LINDSTROM HALL (BOYS)	Marion	11,252,000	109,656	11,361,656	DORM	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	GIRLS DORM	Marion	4,834,600	26,800	4,861,400	DORM	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	INDUSTRIAL ARTS	Marion	2,591,438	11,000	2,602,438	TEACHING SHOPS	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	MAINTENANCE	Marion	3,595,297	52,448	3,647,745	HEAT PLANT	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	CENTRAL SERVICES FACILITY	Marion	7,586,994	40,000	7,626,994	CAFETERIA/INFIRMARY	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Education	EDUCATION FACILITY	Marion	7,215,600	75,000	7,290,600	COMP LAB/INTERMEDIATE	H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Dept of Education	PRESCHOOL	Marion	1,063,800	11,340	1,075,140	ELEMENTARY DORM	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Forestry	STATE FORESTER BLDG	Marion	3,144,776	256,981	3,401,757	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Forestry	ADMINISTRATIVE SERVICES	Marion	6,179,800	447,077	6,626,877		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Forestry	OPERATIONS	Marion	10,719,144	494,005	11,213,149		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Forestry	ADMINISTRATIVE SERVICES	Marion	2,728,112	211,628	2,939,740	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Forestry	EQUIPMENT POOL	Marion	2,107,733	169,590	2,277,323	OFFICE/AUTO SHOP	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Forestry	FIRE CACHE	Marion	1,552,755	1,103,804	2,656,559	OFFICE/SUPPLY STORAGE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	SISKIYOU	Marion	2,764,800	298,401	3,063,201	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	3,773,520	165,024	3,938,544	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	7,559,449	715,674	8,275,123	FOOD SERVICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	YAQUINA HALL	Marion	5,583,600	10,462	5,594,062	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	SANTIAM HALL	Marion	11,689,200	778,477	12,467,677	PSYCHIATRIC HOSPITAL	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	DOME BLDG	Marion	5,950,692	134,301	6,084,993	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	MCKENZIE HALL	Marion	14,672,700	326,981	14,999,681	PSYCHIATRIC HOSPITAL	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	6,754,032	215,088	6,969,120	PSYCHIATRIC HOSPITAL	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	6,250,560	25,473	6,276,033		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	6,738,528	52,932	6,791,460		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	7,303,200	23,622	7,326,822		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	6,893,976	22,115	6,916,091		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	9,280,368	120,272	9,400,640		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	7,384,800	90,105	7,474,905	ANCILLARY SPACE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	8,221,200	257,342	8,478,542		H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services		Marion	3,898,800	122,818	4,021,618	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	HEAT PLANT	Marion	1,754,400	83,670	1,838,070	HEAT PLANT	H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Dept of Human Services	MATERIAL DISTRIBUTION CTR	Marion	1,342,674	548,795	1,891,469	WAREHOUSE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	PHYSICAL PLANT	Marion	3,628,800	569,011	4,197,811	SHOPS/OFFICE S	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	ACTIVITIES CENTER	Marion	1,082,832	21,647	1,104,479	RSD ACTIVITIES	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	BREITENBUSH HALL	Marion	20,461,200	855,989	21,317,189	PSYCHIATRIC HOSPITAL	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Human Services	EOLA	Marion	29,253,600	935,781	30,189,381		H	H	M	M	H	M	-	-	H	H	H	H
Dept of State Lands	STATE LANDS	Marion	10,963,000	1,545,000	12,508,000	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	PROJ MGRS & R/W BL A	Marion	3,047,563	1,523,781	4,571,344	OFFICE/ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	SALEM PASSENGER RAIL STA	Marion	769,798	384,898	1,154,696	COMM/TRAIN STATION	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	BARL SCHOOL OFFICE BLDG	Marion	1,735,211	867,605	2,602,816	OFFICE/ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	SALEM STRM STOR BLDG I	Marion	2,754,695	1,377,347	4,132,042	WAREHOUSE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	SALEM EQ FAB SHOP BLDG L	Marion	2,255,531	1,127,765	3,383,296	WAREHOUSE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	SALEM REPAIR FACILITY BLDG M	Marion	3,863,465	1,931,732	5,795,197	GARAGE SERVICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	FACILITIES MGMT BLDG X	Marion	4,128,817	2,064,408	6,193,225	OFFICE/ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	SUPPLY OPS/PURCH/BLDG K	Marion	4,176,480	2,088,240	6,264,720	WAREHOUSE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	SALEM MATERIALS LAB	Marion	9,564,108	4,782,054	14,346,162	LAB/RESEARCH	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	SALEM SIGN SHOP BLDG Q	Marion	1,487,036	743,518	2,230,554	GARAGE SERVICE	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	TRANS DEVELP MILL CREEK	Marion	8,467,353	4,233,676	12,701,029	OFFICE/ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	DMV Headquarters East Annex	Marion	961,796	480,898	1,442,694	Office, Administrative	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	Woodburn Maint Station Building	Marion	946,450	473,225	1,419,675	Maintenance Station Bldg	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	Detroit Maint Station Bldg	Marion	1,404,720	702,360	2,107,080	Maintenance Station Bldg	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	Facilities Management Bldg X	Marion	760,811	380,406	1,141,217	Office, Administrative	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	Salem Equip Sh Museum	Marion	805,055	402,528	1,207,583	Museum	H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Dept of Transportation	Emergency Services, Building E	Marion	956,749	478,374	1,435,123	Office, Administrative	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	Salem Equip Paint Bldg	Marion	871,140	435,570	1,306,710	Garage Service	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	Wireless Comm Info Systm, Bldg C	Marion	1,301,001	650,500	1,951,501	Communications	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	Salem OSP Weighmaste	Marion	4,098,254	2,049,127	6,147,381	Communications	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	DMV HEADQUARTERS	Marion	21,783,967	14,356,756	36,140,723	OFFICE/ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	REGION 2 HQ BLDG B	Marion	28,713,513	14,346,756	43,060,269	OFFICE/ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Dept of Transportation	ODOT OFFICE	Marion	26,560,000	13,280,000	39,840,000	OFFICE/ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Employment Dept	SALEM FIELD OFFICE	Marion	2,420,000	1,000,000	3,420,000	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
Judicial Dept	SUPREME COURT	Marion	25,000,000	8,000,000	33,000,000	COURT OPERATIONS	H	H	M	M	H	M	-	-	H	H	H	H
Legislative Administration	STATE CAPITOL	Marion	139,692,526	5,324,390	145,016,916	OFFICE/AUDITORIUM	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	OWENS SUMMERS BLDG	Marion	16,776,862	393,710	17,170,572	ARMORY	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	SALEM ARMORY	Marion	2,651,352	5,000	2,656,352	ARMORY	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	SALEM ARMORY AUDITORIUM	Marion	6,610,711	0	6,610,711	AUDITORIUM	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	SALEM ORGANIZATIONAL MAINT SHOP	Marion	3,201,142	5,000	3,206,142	OMS	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	HANGAR 1	Marion	5,010,455		5,010,455	AIRCRAFT HANGAR	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	HANGAR 2	Marion	12,406,275		12,406,275	AIRCRAFT HANGAR	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	HANGAR 3	Marion	1,417,962		1,417,962	AIRCRAFT HANGAR	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	SILVERTON ARMORY	Marion	1,852,752	5,000	1,857,752	ARMORY	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	WOODBURN ARMORY	Marion	2,468,267	6,912	2,475,179	ARMORY	H	H	M	M	H	M	-	-	H	H	H	H
Military Dept	ANDERSON READINESS CENTER	Marion	23,500,000	0	23,500,000	ARMORY	H	H	M	M	H	M	-	-	H	H	H	H
Oregon State Lottery	LOTTERY	Marion	15,237,569	20,032,915	35,270,484	OFFICE/WAREHOUSE	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	HILLCREST - NORBLAD HALL	Marion	7,494,192	557,006	8,051,198	MS/KITCHEN/DINING/CLOTHING DEPT	H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Oregon Youth Authority	HILLCREST - R F SCHOOL	Marion	5,818,060	23,494	5,841,554	SCHOOL/GYM	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	HILLCREST - ZETA	Marion	1,876,672	47,805	1,924,477	CORRECTION FACILITY	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	HILLCREST - ADMINISTRATION	Marion	2,663,891	190,094	2,853,985	ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	HILLCREST - GAMMA/IOTA/SCOTT	Marion	8,598,384	165,654	8,764,038	CORRECTION FACILITY	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - WHITEAKER	Marion	2,578,838	323,715	2,902,553	ADMIN	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - GEER COMPOUND	Marion	9,610,560	524,124	10,134,684	DORM/CLINIC	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - FOOD SERVICE	Marion	1,817,018	206,354	2,023,372	FOOD PREP	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - MOODY SHOP	Marion	1,803,278	500	1,803,778	VOCATIONAL	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - LORD SCHOOL	Marion	2,688,561	10,000	2,698,561	H SCHOOL	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - SWIM POOL/PENNAYER GYM	Marion	3,000,285	141,857	3,142,142	RECREATION	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - MAINT SHOP/HEATING PLANT	Marion	4,295,156	361,581	4,656,737	MAINTENANCE	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - BOWERMAN HALL	Marion	1,453,527	239,163	1,692,690	TRAINING	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - DUNBAR COTTAGE	Marion	1,742,624	71,312	1,813,936	SECURE DORM	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - HALL COTTAGE	Marion	1,742,624	71,312	1,813,936	SECURE DORM	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - HOLMES COTTAGE	Marion	1,742,624	71,312	1,813,936	SECURE DORM	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - KINCAID COTTAGE	Marion	1,742,624	71,312	1,813,936	SECURE DORM	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - MCKAY COTTAGE	Marion	1,742,624	71,312	1,813,936	SECURE DORM	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - SMITH COTTAGE	Marion	1,742,624	71,312	1,813,936	SECURE DORM	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - GROVER COTTAGE	Marion	1,742,624	71,812	1,814,436	SECURE DORM	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - MCBRIDE COTTAGE	Marion	1,742,624	72,812	1,815,436	SECURE DORM	H	H	M	M	H	M	-	-	H	H	H	H
Oregon Youth Authority	MACLAREN - THAYER HALL	Marion	2,590,648	91,777	2,682,425	SECURE DORM	H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Oregon Youth Authority	MACLAREN - CIU	Marion	3,213,744	124,810	3,338,554	MAX SECURITY VISITORS CENTER	H	H	M	M	H	M	-	-	H	H	H	H
Parks & Recreation	CHAMPOEG VISITOR CENTER	Marion	1,437,488	450,000	1,887,488		H	H	M	M	H	M	-	-	H	H	H	H
Parks & Recreation	SILVER FALLS CONF CTR DINING HALL	Marion	2,774,057	200,000	2,974,057	DINING HALL	H	H	M	M	H	M	-	-	H	H	H	H
Parks & Recreation	SILVER FALLS YOUTH CAMP DINING HALL	Marion	2,544,807	100,000	2,644,807	DINING HALL	H	H	M	M	H	M	-	-	H	H	H	H
Parks & Recreation	SILVER FALLS FALLS LODGE	Marion	2,094,196	67,000	2,161,196	CONCESSION/INTERP CTR	H	H	M	M	H	M	-	-	H	H	H	H
SAIF Corporation	PARKWAY	Marion	10,560,860	4,775,717	15,336,577	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
SAIF Corporation	CHURCH ST	Marion	2,164,910	207,936	2,372,846	OFFICE/CONF/HEALTH FACILITY	H	H	M	M	H	M	-	-	H	H	H	H
SAIF Corporation	CORP PARKING STRUCTURE	Marion	8,243,771	118,178	8,361,949	PARKING	H	H	M	M	H	M	-	-	H	H	H	H
SAIF Corporation	HSB	Marion	14,622,926	17,424,450	32,047,376	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	4-H/FFA BARN	Marion	1,614,246	495,000	2,109,246	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	POULTRY	Marion	1,365,061	0	1,365,061	FAIR	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	STADIUM	Marion	8,946,731	29,000	8,975,731	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	BACKSTRETCH STABLES	Marion	1,550,035	0	1,550,035	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	SHOW HORSE BARN	Marion	1,453,146	0	1,453,146	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	4-H AUDITORIUM	Marion	2,457,989	126,000	2,583,989	FAIR	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	CASCADE HALL	Marion	2,011,824	8,000	2,019,824	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	COLUMBIA HALL	Marion	5,199,626	70,000	5,269,626	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	BEEF BARN	Marion	1,495,731	30,000	1,525,731	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	JACKMAN LONG BLDG	Marion	6,731,228	286,000	7,017,228	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	LIVESTOCK PAVILION	Marion	4,104,314	118,000	4,222,314	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	AMPHITHEATRE	Marion	4,460,593	35,000	4,495,593	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
State Fair & Expo Center	PAVILION	Marion	10,331,897	150,000	10,481,897	FAIR & EVENTS	H	H	M	M	H	M	-	-	H	H	H	H
Veterans' Affairs	VETERANS AFFAIRS BLDG	Marion	18,150,000	2,425,000	20,575,000	OFFICE	H	H	M	M	H	M	-	-	H	H	H	H

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Military Dept	DALLAS ARMORY	Polk	2,564,464	5,000	2,569,464	ARMORY	M	H	M	M	M	H	-	-	H	H	-	-
Military Dept	OR ARNG REGIONAL TRAINING INST	Polk	11,734,951	5,000	11,739,951	GEN INST	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	ADMINISTRATION	Polk	5,490,045	1,495,799	6,985,844	ADMIN	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	CAMPBELL	Polk	5,112,855	83,752	5,196,607	INSTRUCTION/R ESEARCH	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	TODD HALL	Polk	6,071,835	659,088	6,730,923	INSTRUCTION	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	HUMANITIES & SOCIAL SCIENCE	Polk	5,766,420	266,796	6,033,216	INSTRUCTION	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	INSTRUCTIONAL TECH CTR	Polk	6,900,225	4,873,714	11,773,939	INSTRUCTION	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	EDUCATION	Polk	5,734,245	364,500	6,098,745	INSTRUCTION	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	PE & WOLVERTON MEM POOL	Polk	6,037,515	290,212	6,327,727	PHYSICAL ED	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	SMITH MUSIC HALL	Polk	2,361,975	256,250	2,618,225	INSTRUCTION	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	STUDENT HEALTH SVCS	Polk	1,032,302	125,725	1,158,027	WELLNESS	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	STADIUM	Polk	1,374,719	290,213	1,664,932	INSTITUTIONAL SERVICES	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	A.P.S.C.	Polk	7,083,780	179,375	7,263,155	INSTRUCTION	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	PHYSICAL PLANT	Polk	4,967,820	1,561,626	6,529,446	PHYSICAL PLANT	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	ARBUTHNOT HALL	Polk	3,870,020	100,325	3,970,345	RESIDENCE HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	MAASKE HALL	Polk	2,488,200	243,623	2,731,823	INSTRUCTION	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	BUTLER HALL DORM 5	Polk	2,710,510	116,902	2,827,412	RESIDENCE HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	GENTLE HALL DORM 6	Polk	2,708,090	26,807	2,734,897	RESIDENCE HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	BARNUM HALL DORM	Polk	2,700,500	116,902	2,817,402	RESIDENCE HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	LANDERS HALL DORM 8	Polk	6,151,750	59,640	6,211,390	RESIDENCE HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	VALSETZ DINING HALL	Polk	5,954,728	728,148	6,682,876	DINING HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	PE - NEW	Polk	10,307,220	290,213	10,597,433	PHYSICAL ED	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	RICE AUDITORIUM	Polk	4,565,055	204,424	4,769,479	INSTRUCTION	M	H	M	M	M	H	-	-	H	H	-	-

Region 3: Mid/Southern Willamette Vally State Owned Building Inventory

Agency	Building Name	County	Replacement Value	Contents Value	Total Bldg Value	Usage	Earthquake		Fire/WUI		Flood		Landslide		Windstorm		Winterstorm	
Western Oregon Univ	HERITAGE HALL	Polk	10,539,320	415,304	10,954,624	RESIDENCE HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	POLICE ACADEMY	Polk	4,077,480	9,752	4,087,232	STUDENT ACTIVITIES	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	SPRUCE HALL	Polk	3,439,102	148,325	3,587,427	RESIDENCE HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	NOBLE HALL	Polk	3,426,925	148,325	3,575,250	RESIDENCE HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	CEDAR HALL	Polk	3,426,925	148,325	3,575,250	RESIDENCE HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	WERNER UNIVERSITY CENTER	Polk	11,409,365	619,568	12,028,933	DINING HALL	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	WERNER UNIVERSITY CENTER	Polk	3,904,336	619,567	4,523,903	STUDENT ACTIVITIES	M	H	M	M	M	H	-	-	H	H	-	-
Western Oregon Univ	NATURAL SCIENCES	Polk	7,772,985	871,192	8,644,177	INSTRUCTION/RESEARCH	M	H	M	M	M	H	-	-	H	H	-	-
Dept of Transportation	McMinnville MS Offic	Yamhill	1,156,227	578,113	1,734,340	Office, Administrative	H	M	M	M	M	H	-	-	L	M	M	M
Dept of Transportation	McMinnville Maint Station Bldg	Yamhill	741,571	370,786	1,112,357	Maintenance Station Bldg	H	M	M	M	M	H	-	-	L	M	M	M
Dept of Transportation	Newberg Maint Station Bldg	Yamhill	1,339,448	669,724	2,009,172	Maintenance Station Bldg	H	M	M	M	M	H	-	-	L	M	M	M
Military Dept	MCMINNVILLE ARMORY	Yamhill	2,933,395	8,506	2,941,901	ARMORY	H	M	M	M	M	H	-	-	L	M	M	M
Region Totals			3,677,762,980	797,508,024	4,475,271,004													