Economic Opportunities Analysis

Section 12 of Newberg Inventory of Natural and Cultural Resources

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City of Newberg
Economic Opportunities Analysis

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I. Introduction

Newberg has a strong economy based on manufacturing, health care, education, tourism, agriculture, and retail. As the city with the second largest population in Yamhill County, Newberg serves as the commerce center for the eastern portion of the county's primarily agricultural economy. Over the past few decades, Newberg's economic base has become more diversified. Several of its home-grown industries have evolved into national and international leaders in their respective fields.

This trend toward growth and diversification is likely to continue as the growth of the Portland metropolitan area increasingly influences Newberg. However, our city is one steeped in history, and is a community that possesses a strong sense of place. The citizens of Newberg highly value these characteristics and wish to maintain its unique identity. To do so, Newberg must strengthen its economic base. Newberg must support its existing businesses while nurturing new enterprises.

Newberg has identified four business clusters that are the foundation of its economy: manufacturing, health care, higher education, and the wine/tourism industry. Ensuring the vitality of these business clusters is key to the economic health of our community

Like most communities, Newberg's economic development efforts focus on two principal strategies:

1. Retention and Expansion of Existing Businesses. Newberg has been extremely fortunate in having strong commercial and industrial sectors. Newberg has an unwavering commitment to its existing businesses and industries. This commitment is underscored by the positive attitude of appointed and elected officials to meeting the needs of the business community – in terms of providing public facilities and services necessary for businesses to grow and prosper, and in listening to the business community in its long-range planning processes and regulatory review.

2. Recruitment of New Businesses. A substantial portion of Newberg's Economic Opportunities Analysis is devoted to attracting new traded-sector industrial and service-based industries that will bring new resources to maintain and improve the livability of the community. To ensure that Newberg's economic development efforts are successful, we have carefully assessed economic trends and our comparative economic advantages and disadvantages, as required by Statewide Planning Goal 9 (Economy of the State).

   The City has worked closely with the Portland-Vancouver Regional Partners Council for Economic Development, the Oregon Business Development Department (OBDD), and the Department of Land Conservation and Development (DLCD) in defining the types of industry clusters that can be reasonably attracted to our community. Newberg also has determined the size and characteristics of sites required for Newberg to be competitive -- from a regional perspective -- in attracting our targeted businesses to the community.

Critical to Newberg's economic development efforts is the availability of developable land for businesses, as redevelopment opportunities are limited. The City closely monitors the supply of

these types of lands to ensure that opportunities for economic growth can be capitalized upon as they arise.

As for Newberg's targeted industrial clusters, most of these businesses require relatively flat sites, with a minimum of conflicting land uses, such as residential areas, and close access to a major highway or arterial without travel through land with conflicting uses. Most will benefit tremendously by the construction of the Newberg-Dundee Bypass and its connection to Highway 219, which is planned in the Oregon Highway Plan.

The City also has considered the site characteristics required to attract targeted industrial clusters when considering Newberg relative to other Northwest communities. Newberg has identified four types of industrial development to focus on:

- Large site light industrial (individual sites reserved for single users);
- Airport light industrial (within the Sportsman Airpark Land Use Master Plan);
- Infill light industrial that takes advantage of remaining industrial sites within the existing UGB; and
- Master planned light industrial parks that provide a range of medium to small sites in a master planned setting.

The Oregon Business Development Department has made it very clear that providing large industrial sites for traded-sector employment opportunities in a master planned park setting with close access to Interstate 5 will put Newberg at a distinct advantage when compared with other Northwest communities.

Newberg has relatively little suitable industrial land left within its UGB. After considering a range of alternatives both in and outside of the existing UGB, Newberg has concluded that the South Industrial Area best meets the site requirements of targeted industrial clusters. This area:

- Has large, flat "suitable" sites (i.e., meeting identified site requirements) with close access to Highway 219. The area has access within 15 minutes to I-5, with no intervening urban areas. It has close access to the Highway 99W corridor, which will be further enhanced with construction of the Newberg-Dundee Bypass;
- Has natural buffers from adjacent agricultural and rural residential land that enhances the attractiveness of the area for traded-sector industrial use;
- Has immediate access to electrical, natural gas, sewer and water services;
- Is a natural extension of Newberg's existing light industrial and airport-related industrial areas.

Newberg's other primary existing business clusters (health care, higher education, wine/tourism) also must have opportunities for expansion if they are to remain vital. These businesses are usually located on lands zoned for commercial and/or institutional development.

Higher education institutions in Newberg include George Fox University and Portland Community College. While the University currently owns sufficient land to satisfy its physical needs for the foreseeable future, much of that land is expected to be redeveloped to satisfy their

programmatic needs. Portland Community College constructed a campus in Newberg as a result of a bond measure that was passed in 2008.

The foundation of the local healthcare industry is Providence Newberg Medical Center, which is located at the east end of Newberg directly on Highway 99W. The hospital is located on land that will accommodate its expansion plans for the foreseeable future. Land to accommodate development of ancillary private medical services that would benefit from close proximity to the hospital is available.

The wine/tourism industry in Newberg is principally involved in the retail and service business sectors. Growing of the wine grapes and processing them into wine is done outside of Newberg's city limits. Further development of this industry will likely be accommodated through two mechanisms. First, Newberg's historic downtown buildings/land will continue to be reused and redeveloped for businesses of this industry, including direct sales of wine, restaurants, antiques, arts and crafts stores, etc. Second, the Springbrook Master Plan has a commercial node that is expected to include businesses that will cater to the needs of wine tourists. Moreover, this commercial node will be located next to the newly constructed Allison Inn and Spa, a high-end resort that targets wine tourists. Additional opportunities for manufacturing, processing, and storing wine could be made available if Newberg had adequate industrial land.

Finally, a community's economic development strategy must consist of more than ensuring the availability of an adequate land supply for future growth. The community also must commit to comprehensive set of actions that support local businesses. Included in this analysis is a list of recommended economic development actions that are intended to help Newberg assist its local economic partners.

II. Economic Trends Analysis

The EOA addresses local and regional trends (660-009-0015 (1)) on the following pages, concluding that Newberg's future employment growth will be dependent on regional economic clusters. The trends analysis results in identification of future industrial uses – the "Targeted Industrial Clusters" for Newberg.

National, State and Regional Trends

Economic development in Newberg over the next 20 years will occur in the context of long-run national trends.[1] The most important of these trends include:

<u>The aging of the baby boom generation, accompanied by increases in life expectancy.</u> The number of people age 65 and older will more than double by 2050, while the number of people under age 65 with grow only 22 percent. The economic effects of this demographic change include a slowing of the growth of the labor force, an increase in the demand for healthcare services, and an increase in the percent of the federal budget dedicated to Social Security and

[1] National trends courtesy of ECONorthwest.

Medicare.[2]

Baby boomers are expecting to work longer than previous generations. An increasing proportion of people in their early to mid-50s expect to work full-time after age 65. In 2004, about 40% of these workers expect to work full-time after age 65, compared with about 30% in 1992.[3] This trend can be seen in Oregon, where the share of workers 65 years and older grew from 2% of the workforce in 1992 to 3% of the workforce in 2002, an increase of 64%. Over the same ten-year period, workers 45 to 64 years increased by 70%.[4]

Tightening labor force: Slower population growth and a decreasing over-all labor force participation rate are expected to contribute to a slowdown in labor force growth. The rate of labor force growth is projected to decrease by about 4%. The projected 8% percent increase for the 2008-18 period is less than the 12% growth that occurred between 1998 and 2008. The total labor force is projected to grow by 12.6 million between 2008 and 2018, to 166.9 million persons. From 2008-2018 the number of women in the labor force will grow at a slightly faster rate (9 percent) compared to men (7.5 percent).[5]

Need for replacement workers. Although economic growth will create a substantial number of job openings over the 2008–18 projection period, the majority are expected to come from replacement needs. Replacement needs are projected to account for 67% of the approximately 50.9 million job openings between 2008 and 2018. Professional and related occupations are projected to have the largest number of total job openings, 11.9 million, and 56% of those will be due to replacement needs. Replacement needs generally are greatest in the largest occupations and in those with relatively low pay or limited training requirements. As a result, service occupations are projected to have the greatest number of job openings due to replacements, about 7.6 million.[6]

Increases in labor productivity. Worker productivity, the amount of product created per hour of labor, is on the rise. This is in large part due to increases in efficiency gained by better machinery and technology. The Bureau of Labor Statistics reports that business productivity rose 11 percent from 2005 to 2010. Productivity in manufacturing rose nearly 14 percent during the same period.[7] While this bodes well for employers trying to increase profits, it also is an ominous sign for workers, as fewer are needed for the same output.[8] Manufacturing and other industries are seeing a corresponding increase in the ratio of floor area per employee, as more

[2] The Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, 2008, *The 2008 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, April 10, 2008.

[3] "The Health and Retirement Study," 2007, National Institute of Aging, National Institutes of Health, U.S. Department of Health and Human Services.

[4] "Growing Numbers of Older Workers in Oregon," Oregon Employment Department.

[5] Employment Projections 2008-2018, Bureau of Labor Statistics

[6] *Occupational Outlook Handbook, 2010-11 Edition*, Bureau of Labor Statistics*;* Alan Lacey and Benjamin Wright, *Monthly Labor Review 2009.*

[7] "Productivity and Costs, Fourth Quarter and Annual Averages 2010, Revised," Bureau of Labor Statistics, (March 3, 2011).

[8] Davidson, Paul, "Higher productivity cuts jobs now, pays off in long term," *USA Today* (February 23, 2011).

floor space is used by machine and less by workers.[9]

Continued trend towards domestic outsourcing. Businesses continue to outsource work to less expensive markets. Outsourcing generally falls into two categories: (1) moving jobs from relatively expensive areas to less expensive areas within the U.S. and (2) moving jobs outside of the U.S. to countries with lower labor costs. About three-quarters of layoffs in the U.S. between 1995 and 2004 were the result of domestic relocation, involving movement of work within the same company. The industries with the largest amounts of domestic outsourcing were: manufacturing, retail trade, and information.[10]

Continued growth in global trade and the globalization of business activity. With increased global trade, both exports and imports rise. Faced with increasing domestic and international competition, firms will seek to reduce costs through implementing quality- and productivity-enhancing technologies, such as robotics or factory automation. In addition, production processes will continue to be outsourced offshore.[11]

Continued shift of employment from manufacturing and resource-intensive industries to the service-oriented sectors of the economy. Increased worker productivity and the international outsourcing of routine tasks lead to declines in employment in the major goods-producing industries. Projections from the Bureau of Labor Statistics indicate that U.S. employment growth will continue to be strongest in healthcare and social assistance, professional and business services, and other service industries. Construction employment will also grow but manufacturing employment will decline.[12]

The importance of high-quality natural resources. The relationship between natural resources and local economies has changed as the economy has shifted away from resource extraction. Increases in population and household income, combined with changes in tastes and preferences, have dramatically increased demands for outdoor recreation, scenic vistas, clean water, and other resource-related amenities. Such amenities contribute to a region's quality of life and play an important role in attracting both households and firms.[13]

Continued westward and southward migration of the U.S. population. Although there are some exceptions at the state level, the 2009 American Community Survey shows continued regional

[9] Schectman, Joel. "Rise of the Machines," *Newsweek* (December 17, 2010)

[10] Sharon P. Brown and Lewis B. Siegel, "Mass Layoff Data Indicate Outsourcing and Offshoring Work," *Monthly Labor Review*, August 2005, pp. 3-10.

[11] Eric B. Figueroa and Rose A. Woods, 2007, "Industry Output and Employment Projections to 2016," *Monthly Labor Review*, November 2007, pp. 53-85.

[12] Eric B. Figueroa and Rose A. Woods, 2007, "Industry Output and Employment Projections to 2016," *Monthly Labor Review*, November 2007, pp. 53-85.; Arlene Dohm and Lyn Shniper, "Occupational Employment Projections to 2016," *Monthly Labor Review*, November 2007, pp. 86-125.

[13] For a more thorough discussion of relevant research, *see*, for example, Power, T.M. and R.N. Barrett. 2001. *Post-Cowboy Economics: Pay and Prosperity in the New American West*. Island Press, and Kim, K.-K., D.W. Marcouiller, and S.C. Deller. 2005. "Natural Amenities and Rural Development: Understanding Spatial and Distributional Attributes." *Growth and Change* 36 (2): 273-297.

population movement from the Northeast and Midwest to the South and West.[14]

The growing importance of education as a determinant of wages and household income. Level of education largely determines employment, which largely determines income level. Completion of a four-year college degree paves the way for a professional or managerial occupation in the information-based economy, which on average yields higher incomes than service jobs or menial labor. According to the Bureau of Labor Statistics, the majority of the fastest growing occupations over the next decade will require an academic degree: computer software application engineers, elementary school teachers, and accountants and auditors. Service jobs, (e.g., retail sales person, food preparation workers, and home care aides) will account for about half of all jobs by 2016.[15]

Continued increase in demand for energy. Despite short-term fluctuations, energy prices and total demand are forecast to remain at relatively high levels through 2035. Growth in U.S. energy use is linked to population growth through increases in demand for housing, commercial floorspace, transportation, manufacturing, and services. This affects not only the level of energy use, but also the mix of fuels and consumption by sector. Although total demand is forecast to increase, energy consumption per person has declined sharply during the recent economic recession. Energy use per capita increases slightly as the economy rebounds, then begins declining in 2013 as higher efficiency standards for vehicles and lighting begin to take effect. From 2013 to 2035, energy use per capita declines by 0.3 percent per year on average.[16]

Impact of rising energy prices on commuting patterns. Energy prices may continue to be high (relative to historic energy prices) or continue to rise over the planning period[17] which may impact willingness to commute long distances. There is some indication that increases in fuel prices have resulted in decreased suburban housing demand which has resulted in decreased prices, especially in large urban areas (e.g., Los Angeles or Chicago) and suburbs far from the center city. If this pattern continues, the area in Oregon most likely to be most impacted is Portland, which has the largest area of urban and suburban development in the state.[18]

Possible effect of rising transportation and fuel prices on globalization. Increases in globalization are related to the cost of transportation: When transportation is less expensive, companies move production to areas with lower labor costs. Oregon has benefited from this trend, with domestic outsourcing of call centers and other back office functions. In other cases, businesses in Oregon (and the nation) have "off-shored" employment to other countries, most frequently

[14] U.S. Census Bureau, 2005-2009 American Community Survey. Table S0702. Movers Between Regions.

[15] In 2006, the national median income was about $32,000. Workers with some college education earned slightly less than median, while workers with a bachelor's degree earned $45,000. Workers who only had a high school diploma earned $26,000 a year, while workers without a high school degree only earned $19,000 a year. Workers in Oregon experience the same patterns as the nation, however, notably, pay is generally lower in Oregon than the national average. (Source: "Growing Number of Older Workers in Oregon," Oregon Employment Department and American Community Survey, U.S. Census, 2006.)

[16] *Annual Energy Outlook 2010 with Projections to 2035*. U.S. Energy Information Administration.

[17] Energy Information Administration, 2008, *Annual Energy Outlook 2008 with Projections to 2030*, U.S. Department of Energy, DOE/EIA-0383(2008), April

[18] Cortright, Joe. "Driven to the Brink: How the Gas Price Spike Popped the Housing Bubble and devalued the Suburbs," May 2008.

manufacturing jobs.

Likewise, increases in either transportation or labor costs may impact globalization. When the wage gap between two areas is larger than the additional costs of transporting goods, companies are likely to shift operations to an area with lower labor costs. Conversely, when transportation costs increase, companies may have incentive to relocate to be closer to suppliers or consumers. This effect occurs incrementally over time and it is difficult to measure the impact in the short-term. If fuel prices and transportation costs decrease over the 20-year planning period, businesses may not make the decision to relocate (based on transportation costs) because the benefits of being closer to suppliers and markets may not exceed the costs of relocation.

Growing opportunities for "green" businesses. Businesses are increasingly concerned with "green" business opportunities and practices. These business practices are concerned with "the design, commercialization, and use of processes and products that are feasible and economical while reducing the generation of pollution at the source and minimizing the risk to human health and the environment."[19]
Green business opportunities historically have been at the mercy of feasibility and economics; if a firm ignores feasibility and economics while trying to be green, the firm may not be able to afford to operate long enough to learn how to make green businesses feasible. However, growing popularity in "eco-friendly" products and green development has caused the green market to become cost-competitive with the conventional market. The three types of green business opportunities are products, processes, and education.

Producing green products. In general, green products consume fewer resources, and create less pollution, which in turn, is beneficial to human health. For example, hybrid vehicles (which use a mixture of power or fuel sources), use less gasoline to operate and add fewer pollutants to the air, while still providing the same transportation services as a traditional vehicle. Another example is bamboo fencing and lumber, which is considered a "rapidly renewable" material.[20] Unlike traditional building materials, rapidly renewable materials, by virtue of a more consistent harvesting cycle, may sustain a community over a longer period of time than the steady and eventual depletion of finite resources or the degradation of a productive ecosystem.[21]

Providing education about green practices or products. Green education is often closely related to producing green products and is often done by consultants or nonprofit organizations. One example of a company involved in green education is the U.S. Green Building Council, a 501(c)(3) non-profit, which provides third-party verification that a building or community was designed and built using strategies aimed at improving environmental performance (LEED certification), provides numerous education resources and commissions studies geared to advance the green building movement. Another example is a consulting firm that writes a green plan for a city or business.

[19] Urban Green Partnership at urbangreenpartnership.org

[20] Rapidly renewable materials are considered to be an agricultural product, both fiber and animal that takes 10 years or less to grow or raise, and to harvest in an ongoing and sustainable fashion. Bamboo is the fastest-growing plant on Earth.

[21] New Construction and Major Renovation LEED Reference Guide, Version 2.2, U.S. Green Building Council (September 2006).

Using green business practices. Green business practices are alternative methods of doing business that promote resource conservation, prevent or reduce pollution, or have other beneficial environmental effects. Examples of green business processes include: buying products locally to reduce shipping distance, recycling waste products (where possible), or maximizing the use of natural lighting to reduce use of electricity and light bulbs.

Potential impacts of global climate change. There is growing support for but not a consensus about whether global climate change is occurring as a result of greenhouse gas emissions. There is a lot of uncertainty surrounding global climate change, including the pace of climate change and the ecological and economic impacts of climate changes. In the Pacific Northwest, climate change may result in the following changes: (1) increase in average temperatures, (2) shift in the type of precipitation, with more winter precipitation falling as rain, (3) decrease in mountain snow-pack and earlier spring thaw and (4) increases in carbon dioxide in the air.[22] Assuming that global climate change is occurring and will continue to occur over the next 20 years, a few broad, potential economic impacts for the nation and Pacific Northwest include:[23]

Potential impact on agriculture and forestry. Climate change may impact Oregon's agriculture through changes in: growing season, temperature ranges, and water availability.[24] Climate change may impact Oregon's forestry through increase in wildfires, decrease in the rate of tree growth, change in mix of tree species, and increases in disease and pests that damage trees.[25]

Potential impact on tourism and recreation. Impacts on tourism and recreation may range from: (1) decreases in snow-based recreation if snow-pack in the Cascades decreases, (2) negative impacts to tourism along the Oregon Coast as a result of damage and beach erosion from rising sea levels,[26] (3) negative impacts on availability of water summer river recreation (e.g., river rafting or sports fishing) as a result of lower summer river flows, and (4) negative impacts on the availability of water for domestic and business uses.

Potential changes in government policies. There is currently no substantial national public policy response to global climate change. States and regional associations of states are in the process of formulating policy responses to address climate change including: increasing renewable energy generation, selling agricultural carbon sequestration credits, and encouraging

[22] "Economic Impacts of Climate Change on Forest Resources in Oregon: A Preliminary Analysis," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, May 2007.

[23] The issue of global climate change is complex and there is a substantial amount of uncertainty about climate change. This discussion is not intended to describe all potential impacts of climate change but to present a few ways that climate change may impact the economy of cities in Oregon and the Pacific Northwest.

[24] "The Economic Impacts of Climate Change in Oregon: A preliminary Assessment," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, October 2005.

[25] "Economic Impacts of Climate Change on Forest Resources in Oregon: A Preliminary Analysis," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, May 2007.

[26] "The Economic Impacts of Climate Change in Oregon: A preliminary Assessment," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, October 2005.

energy efficiency.[27] Without clear indications of future government policy, it is impossible to assess the impact of government policies on the environment and subsequently, the economy. However, the impending issue of global climate change will also offer economic *opportunities*. The search for alternative energy sources may result in increased investment and employment in "green" energy sources, such as wind, solar, and bio-fuels. Firms in the Northwest are well positioned to lead efforts on climate change mitigation, which may result in export products, such as renewable technologies or green manufacturing. [28]

Short-term national trends will also affect economic growth in the region, but these trends are difficult to predict. At times these trends may run counter to the long-term trends described above. A recent example is the downturn in economic activity starting in 2007 following declines in the housing market and the mortgage banking crisis. The result of the economic downturn has been a decrease in employment related to the housing market, such as construction and real estate. Employment in these industries will recover as the housing market recovers and will continue to play a significant role in the national, state, and local economy over the long run. This report takes a long-run perspective on economic conditions (as the Goal 9 requirements intend) and does not attempt to predict the impacts of short-run national business cycles on employment or economic activity.

The national trends discussed above inform many of the emerging and targeted industry clusters identified in this EOA. They also underscore the importance of concentrating traded-sector industries in Newberg to reduce energy consumption and reliance on commuting. It's important to note that, despite national trends, Newberg has maintained a relatively high percentage of manufacturing jobs within the community and supports continuing to do so.

Regional Economic Development Industry Clusters and Targeted Industries

Industry clusters of a region are its principal economic drivers. The Portland Regional Business Plan identifies specific, traded-sector industry clusters that should be supported to enhance the economic base of the region. The Plan defines a cluster as follows:

> *A cluster is a group of firms that, though their interactions with each other and with their customers and suppliers, develop innovative, cutting-edge products and processes that distinguish them in the market place and from firms in the same industry found elsewhere. The competitiveness of an industry cluster is determined by the presence of highly specialized pools of skills, technology and infrastructure tailored to the needs of the cluster firms. The presence of sophisticated and demanding customers in a cluster pressures firms to innovate on a continuing basis....*
>
> *Those industry clusters that compete nationally and internationally are the core of this region's economy and what distinguishes it from other regions. The industry cluster that exist and that are emerging in the metropolitan area are built on the distinctive*

[27] Pew Center on Global Climate Change website: http://www.pewclimate.org/what_s_being_done/in_the_states/

[28] "The Economic Impacts of Climate Change in Oregon: A preliminary Assessment," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, October 2005.

knowledge competencies of the region, and the strengths that currently enable the region to compete globally for economic activity and investment. Additionally, industries that sell their products and services nationally and internationally have greater long-term growth potential since their opportunities for growth are not constrained by the size of this region's market. For these reasons, focusing on industry clusters is both a more efficient and effective use of this region's efforts and resources.

The Plan identifies the following industry clusters that the Portland region should focus on in their economic development efforts. Because of Newberg's proximity to the region, Newberg also has good likelihood of attracting these industries, and also should focus on attracting them. These include:

1. Established
    a. High Tech (Semiconductors/Silicon, Imaging & Display Technology)
    b. Metals, Machinery, Transportation Equipment
    c. Nursery Products
    d. Specialty Foods and Food Processing
    e. Lumber and Wood Products

2. Emerging
    a. High Tech (Nano & Micro Technology, Cyber-Security, Health/Medical Information Technology)
    b. Creative Services (Advertising, Public Relations, Film and Video, Web/Internet Content and Design)
    c. Sports Apparel/Recreation-Related Products

3. Targeted (clusters desired to create and establish)
    a. Biotech/Bioscience (Medical Devices, Bioinfomatics, Pharmaceuticals, Genomics, Anti-Virals)
    b. Sustainable Industries (Renewable Energy, Resource Efficiency Technologies, Sustainable Building Materials, Green Chemistry)
    c. Professional Services (Architecture, Engineering, Legal and Financial Services, etc.)
    d. Distribution & Logistics

Newberg should provide opportunities for these industries to expand and locate within the Newberg UGB over the 20-year planning period. In addition, costs of doing business in Newberg (e.g. real estate, taxes) can often be significantly lower than in much of the Portland metro area. Our community offers a unique quality of life compared to others in the region, one that will attract those who believe their business will benefit from being located here. If Newberg provides suitable sites for these industry clusters, there is a reasonable likelihood that they will choose our community.

Yamhill County Agri-Business

In June 2009, Barney & Worth, Inc. prepared the *Yamhill County Agri-Business Economic and Community Development Plan: Summary Report* for Yamhill County. The plan assessed the existing state of agriculture and agri-tourism in the County, and assessed future opportunities for

growth. According to the report, Nursery and Greenhouse Crops comprise 45.2% of the value of agricultural production in the county.

Table 12- 1: Yamhill County Value of Agricultural Production, 2007

Yamhill County Value of Agricultural Production, 2007	Value ($000)	Percent of Total
All Crops		
Nursery & Greenhouse Crops	$133,724	45.2%
Grass & Legume Seeds	$56,889	19.2%
Nuts & Tree Fruit	$24,684	8.3%
Small Woodlots and Christmas Trees	$13,204	4.5%
Grain & Hay	$9,600	3.2%
Vegetable & Truck Crops	$3,185	1.1%
Other Crops (Wine Grapes)	$13,387	4.5%
Sub total	$254,673	86.0%
All Livestock		
Dairy Products	$20,482	6.9%
Poultry	$9,780	3.3%
Cattle	$6,267	2.1%
Other Animal Products	$4,903	1.7%
Sub total	$41,432	14.0%
All Crops and Livestock	**$296,105**	

Source: Oregon Agricultural Information Network.

The report also recognizes great opportunities in the agri-tourism sectors. Key findings from the report include:

> *For 150 years and longer, Yamhill County has benefitted from its strong agricultural base. Even now, the agriculture sector produces $300 million in annual sales (not including food processing and wine). The great strength of Yamhill County agriculture is its diversity. Local agricultural production remains strong in many profitable sub-sectors, with fast growing horticulture accounting for nearly half of total sales. The future for Yamhill County agriculture looks bright.*
>
> *Alongside horticulture and traditional crops, the Yamhill County wine industry has emerged over the past 30 years to become headline news nationally and internationally. Yamhill's name – like Napa, Sonoma, Bordeaux and Burgundy – has become synonymous with its wine. With the wine sector continuing to flourish, new wineries opening each year, more acres planted with grapes, this trend will also be sustained in Yamhill County.*
>
> *Coupled with the area's scenic beauty (thanks in part to agriculture!), the wineries assure that Yamhill County will continue to host <u>many</u> visitors. Estimates already place that number at 1.5 million per year who visit local wineries. Half of*

those visitors come from the Portland area, and the other half are from the western states and all over the U.S. and world.

. . .

Yamhill County – with its solid agricultural base, wine destination status, proximity to the metro area, and stunning beauty – also appears to be on the verge of something great. With the opening of the Allison resort in Newberg, along with other new attractions, there's an opportunity just now to pick priorities and adopt strategies that move the community forward.[29]

The plan identifies a number of key ingredients to secure the future for Yamhill County's agriculture and tourism sectors:

Shared vision for Yamhill County's future. *Yamhill County communities and citizens need to reach agreement on values and priorities for the future. Tourism is here to stay – now is the critical time to plan, safeguarding quality of life for local residents and maximizing the potential for community benefits.*

More lodging facilities. *To capture the economic benefits of the estimated 1.5 million annual visitors to wine country, Yamhill County must have more high amenity overnight accommodations.*

More attractions. *Wineries and hotels alone aren't enough to hold every visitor's attention and assure repeat visits. Wine tourism is seasonal and cyclical, and other destinations and attractions will be needed to complement Yamhill County wine country and fill out the tourism calendar: arts and culture, entertainment, historic sites, parks and trails, golf, outdoor adventures, shopping.*

Rezoning to accommodate prototype development projects. *Analysis has revealed the types of representative projects needed to support agriculture and tourism lack adequate sites. Rezoning enables communities to place these projects where they "fit" and provide benefits to the community.*

Site assembly. *Preparing land for development, from initial site selection through planning and marketing, is site assembly. To assure job growth and allow for new investment, communities will need to be proactive in identifying an adequate supply of properly sized, suitably zoned development sites and be active participants in the development process.*

County-wide infrastructure strategy. *The most pressing problem for every community is infrastructure. Regional cooperation in Yamhill County to jointly plan for the future and secure adequate drinking water supplies can be a model*

[29] *Yamhill County Agri-Business Economic and Community Development Plan: Summary Report* Prepared for: Yamhill County, Oregon, Barney & Worth, Inc., in association with Globalwise, Inc., E.D. Hovee & Company, LLC, and Spencer & Kupper, page 41.

for cost saving inter-agency arrangements for other services. Moving ahead with a reprisal solution for drinking water is critical for many Yamhill County communities.

Coordinate opportunity sites / services. *The shortage of suitable development sites and scarcity of funds require strategic thinking. Which key sites and development opportunities must have adequate services available?*[30]

Regional Industrial Land Availability

In January 2009, Metro published its *Urban Growth Report, 2009-2030*. That study made a number of findings.

- The Metro area anticipates captures 73% to 75% of the Portland-Vancouver MSA's employment growth. The lowest capture rates were in manufacturing (52% to 62%), retail (62% to 63%), and accommodation and food service (62% to 63%).
- As for availability of land, the report states,
  The current employment demand forecast and the analysis of employment capacity within the UGB do not indicate a need to add land to the boundary for industrial or non-industrial purposes at the regional level to maintain sufficient capacity to support the region's forecasted employment at the low end of the demand range. However, the analysis does show a need for additional capacity through investments, policy changes, or expansions to support the high end of the demand range for non-industrial employment. Further analysis of preferences for large lots and the current inventory results in a small potential gap in the land needed to support current preferences for large lot formats for single and multi-tenant users.
- The study also concluded that one-quarter of the metro industrial land supply was only "Fair" or "Poor" considering development readiness and development constraints.

The report did not inventory industrial land outside Metro but within the MSA. The report's findings suggest significant opportunities for industrial and employment growth outside Metro, including those targeted by Newberg.

In 2011, Metro added a 330-acre area north of Hillsboro for the purposes of attracting future large-site industrial employers.

Business Oregon, along with the Port of Portland, Metro, NAIOP, and the Portland Business Alliance presented their *Regional Industrial Lands Inventory Findings* in November 2011. Those findings considered the quantity and quality of available industrial lands in the region, and the demand for that land. The report concluded:

- 25% of Business Oregon leads were seeking sites of over 25 acres.
- There was consistent interest in 50+ and 100+ acre sites, even during the current economic downturn.

[30] Barney & Worth, Inc., page 43.

- Diversity of site sizes is critical to traded sector industries and competitiveness.
- Aggregate large lot, industrial land supply within the Metro region is constrained on a number of fronts
- The region had few Tier 1 market ready sites and choices for traded-sector opportunities.

The report's findings suggest there should be additional economic opportunities for industrial users, particularly large lot industrial users, outside the metro area, such as in Newberg.

Newberg Population Profile

Historic and Future Growth Trends

Newberg has grown steadily through the last few decades. Table 12- 2 shows the population growth over time since 1960.

Table 12- 2: Newberg Census Populations

Year	Population
1960	4,204
1970	6,507
1980	10,394
1990	13,086
2000	18,064
2010	22,068

Source: U.S. Census Bureau

Portland State University estimated Newberg's July 1, 2011 population to be 22,230. Newberg's UGB population in 2011 is estimated to be 22,730.[31]

Between 1990 and 2010, Newberg grew at an average annual growth rate of 2.65%. Between 2000 and 2010, Newberg grew 18%. In comparison, Newberg's growth rate was greater than the Portland Metropolitan area's at 13%, the state of Oregon at 11%, and Yamhill County's at 14%.[32] It should be noted that Yamhill County, where Newberg is located, is part of the Portland Metropolitan Statistical Area (PMSA).

Newberg adopted population forecasts for the Newberg urban area in 2005. Following receipt of the 2010 Census information, Yamhill County has announced a desire to create a population study for the county and the urban areas within the county. Yamhill County used Portland State University's Population Research Center to develop forecasts for the county and each urban area in the county. The County adopted the forecasts from the study on November 8, 2012. This study forecasted a Newberg urban area 2032 population of 36,610. Newberg subsequently adopted this population forecast.

[31] Population Research Center, Portland State University, *Population Forecasts for Yamhill County, its Cities and Unincorporated Area, 2011-2035*, 2012.
[32] U.S. Census Bureau

Table 12- 3: Newberg Urban Area Population Forecast

	Population Forecast 2032	Population Forecast 2035
Newberg UGB	36,610	38,490

Source: Yamhill County Comprehensive Plan, 2012

Age Characteristics

Table 12- 4 below compares Newberg's population by age categories with the populations of Yamhill County, the Portland Metropolitan Statistical Area (PMSA), and the state of Oregon. The table also compares the median age for each geographical area.

Table 12- 4: Comparative Age Characteristics

Age Categories	Newberg	Yamhill County	PMSA	Oregon
Under 5 years	7.40%	6.80%	6.80%	6.40%
5 to 9 years	6.10%	7.00%	6.60%	6.30%
10 to 14 years	5.80%	6.90%	6.50%	6.30%
15 to 19 years	8.40%	7.70%	6.40%	6.70%
20 to 24 years	9.00%	6.80%	6.10%	6.80%
25 to 29 years	9.40%	7.00%	8.00%	7.10%
30 to 34 years	8.20%	6.40%	7.70%	6.60%
35 to 39 years	6.90%	6.90%	7.50%	6.80%
40 to 44 years	6.00%	6.20%	7.30%	6.60%
45 to 49 years	7.30%	7.20%	7.50%	7.20%
50 to 54 years	4.60%	7.20%	7.30%	7.40%
55 to 59 years	6.20%	6.40%	6.50%	6.90%
60 to 64 years	4.20%	4.90%	5.00%	5.70%
65 to 69 years	3.10%	3.40%	3.20%	4.00%
70 to 74 years	1.90%	2.70%	2.40%	2.90%
75 to 79 years	1.20%	2.30%	1.80%	2.40%
80 to 84 years	1.30%	1.80%	1.60%	2.00%
85 years and over	2.90%	2.20%	1.60%	2.00%
Median Age (years)	32.9	35.9	36.2	37.9

Source: 2007-2009 American Community Survey

The data shows that Newberg's population is younger that the comparative populations, especially in the 20 to 34 year old categories. This is likely due to the presence of students attending George Fox University. In general, our population over 45 years of age is somewhat lower than the comparative populations.

Educational Attainment and Income

Table 12- 5 below compares the educational attainment of the Newberg population over 25 years of age compared with Yamhill County, the PMSA, and the state of Oregon. Newberg has a lower number of high school graduates than Yamhill County, the PMSA, or Oregon. Newberg also has fewer residents with a Bachelor's degree or higher when compared to the PMSA and the state. This may indicate that, although Newberg has a strong workforce in many areas, it does not have as many of the highly skilled professional jobs available that would require a Bachelor's degree.

Table 12- 5: Comparative Educational Attainment

	Newberg	Yamhill County	PMSA	Oregon
Less than 9th grade	4.59%	5.36%	3.47%	3.71%
9th to 12th grade, no diploma	4.36%	6.26%	5.47%	6.17%
High school graduate, GED, or alternative	19.34%	24.42%	20.35%	22.45%
Some college, no degree	23.04%	23.22%	22.84%	23.06%
Associate's degree	7.94%	6.71%	6.95%	7.14%
Bachelor's degree	15.50%	12.90%	19.22%	16.09%
Graduate or professional degree	7.83%	7.43%	10.54%	9.04%
Percent High School Graduate or Higher	73.64%	74.69%	79.90%	77.79%
Percent Bachelor's Degree or Higher	23.33%	20.33%	29.77%	25.13%

Source: 2007-2009 American Community Survey 3-Year Estimates

Table 12- 6 below compares the household income levels of the Newberg population over 25 years of age compared with the state of Oregon, Yamhill County and the PMSA. Newberg has a higher percentage of households in the $20,000 - $25,000, $35,000 - $40,000, and $45,000 - $50,000 ranges. These are likely due to the number of Newberg workers with jobs in the manufacturing, retail, and educational services sectors. Newberg also has a higher percentage of households in the $60,000 - $100,000 range. This may be due to local workers with management level jobs, and may also be attributable to higher wages earned by workers living in Newberg and working in other cities. As seen in Figure 12- 2 on page 22, Newberg has a high percentage of workers commuting out of Newberg to jobs in other cities.

Table 12- 6: Comparative Household Income

Household Income*	Newberg	Yamhill County	PMSA	Oregon
Less than $10,000	5.96%	5.14%	5.73%	7.20%
$10,000 to $14,999	5.81%	5.80%	4.54%	5.63%
$15,000 to $19,999	5.95%	6.21%	4.69%	5.72%
$20,000 to $24,999	5.55%	4.48%	4.72%	5.78%
$25,000 to $29,999	4.14%	5.30%	4.86%	5.61%
$30,000 to $34,999	3.46%	4.52%	4.98%	5.64%
$35,000 to $39,999	6.16%	5.94%	4.87%	5.40%
$40,000 to $44,999	4.42%	5.14%	4.91%	5.08%
$45,000 to $49,999	6.94%	5.42%	4.53%	4.55%
$50,000 to $59,999	6.86%	8.67%	8.92%	8.95%
$60,000 to $74,999	15.70%	12.73%	11.40%	10.89%
$75,000 to $99,999	15.30%	14.03%	13.57%	12.26%
$100,000 to $124,999	8.25%	7.30%	8.70%	7.17%
$125,000 to $149,999	2.61%	3.79%	5.16%	3.93%
$150,000 to $199,999	2.90%	3.28%	4.50%	3.27%
$200,000 or more	0.00%	2.25%	3.93%	2.92%

*In 2009 Inflation-Adjusted Dollars
Source: 2007-2009 American Community Survey 3-Year Estimates

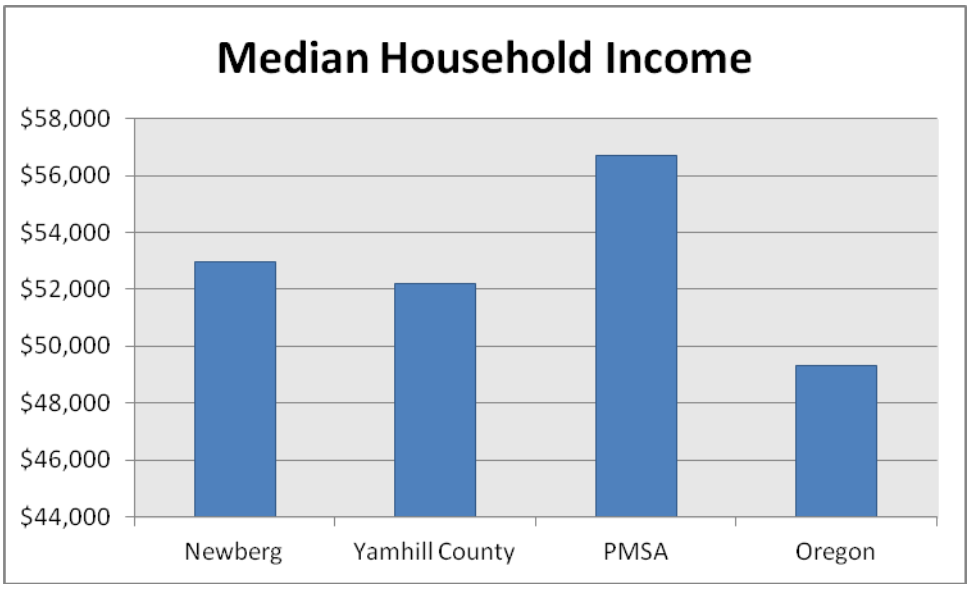
Table 12- 7compares the median household income for Newberg, Yamhill County, the PMSA, and the state of Oregon. Figure 12- 1 graphically shows that Newberg's median household income is higher than that of Yamhill County and the state, and slightly lower than that for the PMSA.

Table 12- 7: Comparative Median Household Income

	Newberg	Yamhill County	PMSA	Oregon
Median Household Income	$52,948	$52,206	$56,689	$49,325

Source: U.S. Census Bureau, 2007-2009 American Community Survey

Figure 12- 1: Comparative Median Household Income



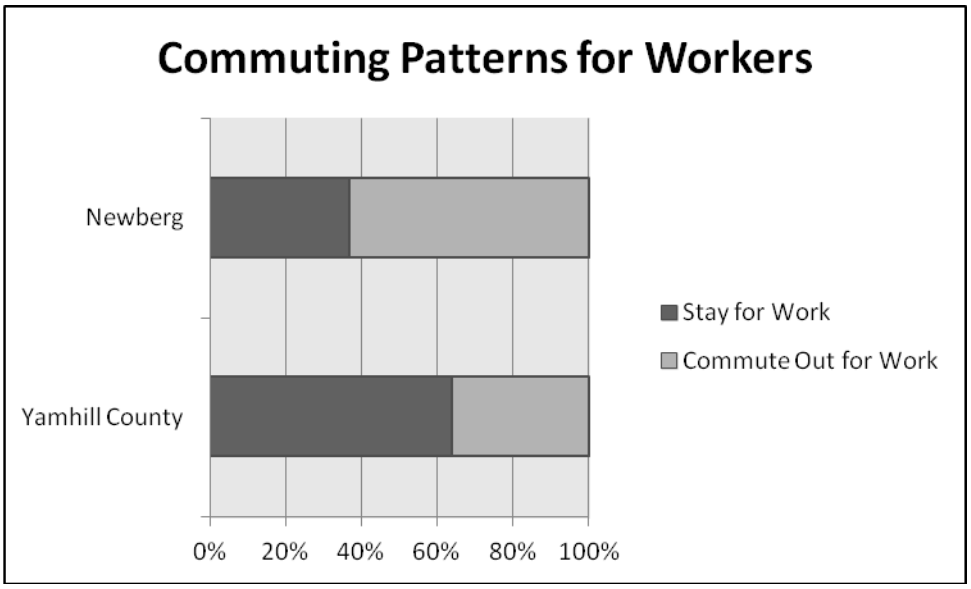
Source: U.S. Census Bureau, 2007-2009 American Community Survey 3-Year Estimates

Comparing the previous education and income tables reveals a very interesting profile of the Newberg community. The Newberg population has a smaller percentage of 4-year college and graduate degrees than the state or the PMSA; however, Newberg is also home to George Fox University. This indicates that George Fox University graduates are not remaining in Newberg, whether by choice or by other factors such as limited available job opportunities. Newberg's median household income is slightly higher than that for Yamhill County, but lower than that for the PMSA. As shown in Figure 12- 3 on page 24, Newberg has a high percentage of workers in educational services and manufacturing jobs, both historically lower-paying professions (with the exception of highly skilled manufacturing jobs).

Commuting Patterns

The 2007-2009 American Community Survey 3-Year Estimates indicate that approximately 63% of workers over age 16 that live in Newberg travel outside of Newberg for work. The data indicates that the mean travel time for a worker leaving Newberg for work is approximately 25 minutes. Given Newberg's relatively close proximity to the Portland metropolitan area, it is reasonable to assume that many of the workers leaving Newberg for work are going to one of the nearby Portland suburbs (which are located in Washington, Multnomah and Clackamas Counties). Figure 12- 2 below shows this commuting pattern.

Figure 12- 2: Commuting Patterns for Workers



Source: 2007-2009 American Community Survey 3-Year Estimates

Approximately 36% of all workers that live in Yamhill County commute to the nearby Portland metropolitan area counties (Washington, Multnomah and Clackamas Counties); a statistic that is similar to the number of Newberg workers commuting out to these counties. The Newberg number is likely higher due to its proximity to these neighboring counties relative to the rest of the Yamhill County population.

Reasons for these commuting patterns are likely to be manifold, and may include:

- Lower housing costs in Newberg compared to the Portland area.
- More employment opportunities in the Portland area.
- Desire to live in a community like Newberg with a high quality of life and sense of community, rather than a "same as everywhere else" type of Portland area suburb.

Newberg would like to provide more local employment opportunities, thus reducing travel time and distance for existing and future residents. In short, Newberg would like to reverse trends towards "bedroom community" status by providing a greater variety of local employment opportunities. To achieve this objective, Newberg must provide industrial sites with characteristics that capitalize on Newberg's comparative economic advantages.

Newberg Employment Characteristics

Historic Economy

Settlement of our region by people of European ancestry began a mostly agricultural economy for the area. As the region developed, Newberg slowly became the commercial center for the eastern end of Yamhill County and it remains so to this day. Evidence of this development is expressed through Newberg's Central Business District, which consists of many early twentieth century buildings constructed in a high-density pattern.

The advent of the car as a primary mode of transportation for people brought about commercial development pattern of a lower density. Most of this type of development is situated along Highway 99W in the eastern section of the city.

Employment growth in Newberg has been strong and steady over the past several decades. Table 12- 8 shows Newberg employment growth from 1978 to 2010.

Table 12- 8: Newberg Employment 1978-2010

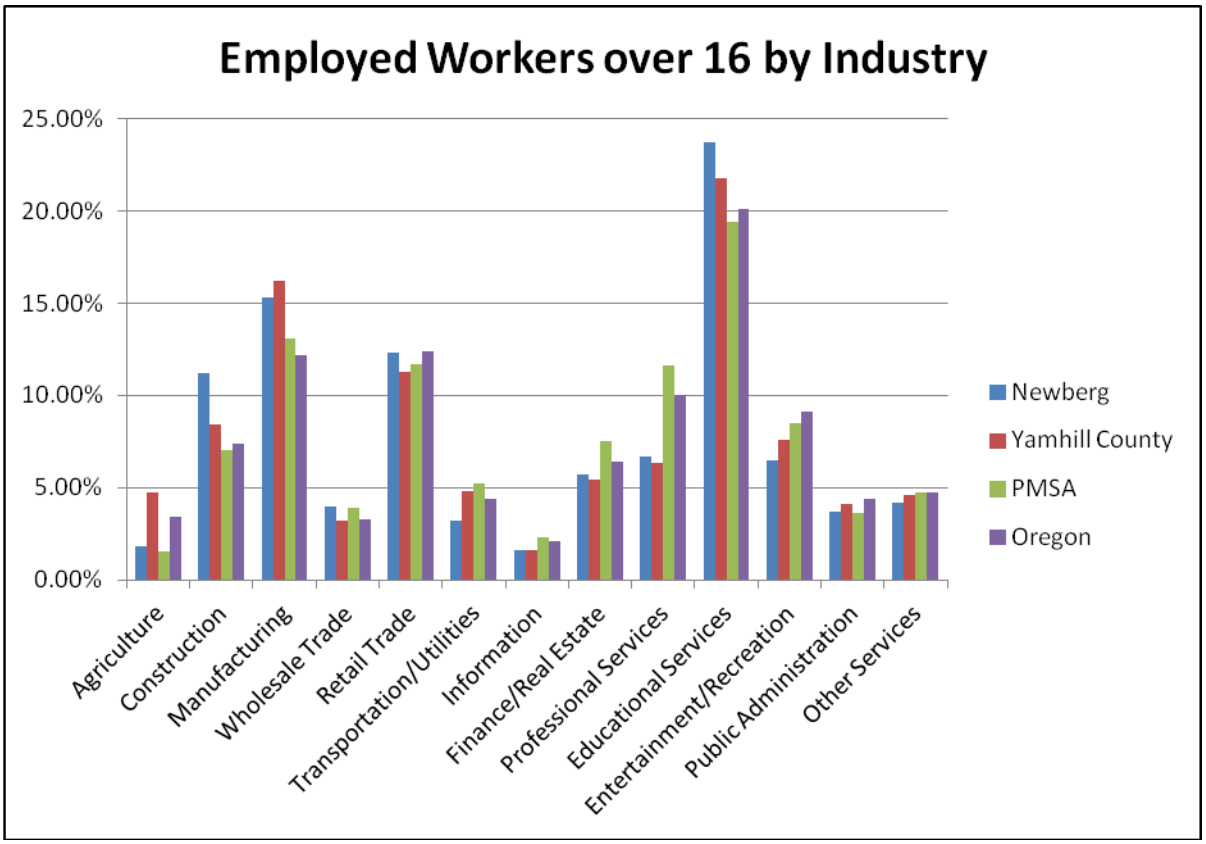
Year	Employment	AAGR
1978	3,250	
1992	4,645	2.6%
2010	8,053	3.1%

Sources: Newberg Inventory of Natural and Cultural Resources, 1978, Newberg Transportation System Plan 1994, Oregon Employment Department 2011

Current Economy

Newberg has a diverse economic base. This diversity, along with the types of businesses, has provided Newberg with a reasonably stable economy. Figure 12- 3 shows how Newberg compares with Yamhill County, the PMSA and the state for percentage of workers by industry. As the chart shows, Newberg has a high percentage of workers in construction, manufacturing, retail trade, and educational services.

Figure 12- 3: Employed Workers over 16 by Industry



Source: U.S. Census Bureau, 2005-2009 American Community Survey 5-Year Estimates

Table 12- 9 shows the estimated Newberg employment by industry in 2010.

Table 12- 9: Estimated Newberg Employment by Industry 2010

Industry	City	Urban Area
Construction	197	387
Manufacturing	1,763	2,164
Wholesale Trade	81	115
Retail Trade	830	837
Transportation, Warehousing & Utilities	79	119
Information	45	51
Financial Activities	245	253
Professional & Business Services	310	370
Education & Health Services	2,170	2,193
Leisure & Hospitality	1,014	1,033
Other Services	381	439
Government	938	958
Total	**8,053**	**8,919**

Source: Oregon Employment Department, Newberg Planning Division[33]

[33] Certain data is confidential at the city level, including management and utilities employment. This data was

The following is a list of the top employers located within the urban growth boundary of Newberg in 2010.

Table 12- 10: Newberg Top Employers 2010

Employer	Average Employment	Product Description	Industry Cluster
A-dec	952	Dental equipment	Manufacturing
Newberg Public Schools	566	K-12 Education	Education
Providence Newberg Medical Center	545	Health Care	Health Care
George Fox University	412	Higher Education	Higher Education
SP Newsprint Company	265	Newsprint	Manufacturing
Fred Meyer, Inc.	240	Groceries, retail	Retail
City of Newberg	196	Government	Government
Friendsview Retirement Center	175	Continuing care retirement community	Health Care
The Allison Inn and Spa	165	Hotel and spa	Wine/Tourism
Climax Portable Machine Tools	131	Portable machine tools	Manufacturing
Marus Dental	100	Dental Equipment	Manufacturing
Hazelden Springbrook	80	Alcohol and drug treatment	Health Care
Chehalem Youth & Family Services	80	Child and family services	Health Care
Harris Thermal Transfer Products	68	Heat exchanger manufacturing	Manufacturing
Dental Components, Inc.	60	Dental equipment	Manufacturing
Ushio Oregon, Inc.	56	High intensity lamps	Manufacturing
Safeway	56	Groceries, pharmacy	Retail
PPM Technologies	54	Food processing machinery	Manufacturing
A.R.E. Manufacturing	35	Dental equipment and boat parts	Manufacturing

Source: Chehalem Valley Chamber of Commerce; Reuters; Manta.com

Newberg has a higher than average manufacturing employment base. The list of companies in

imputed based on other available information, such as Yamhill County data.

the table above shows that many of the community's businesses are industrial in nature. Education (e.g. George Fox University) and health care (e.g. Providence Newberg Medical Center) are also big components of Newberg's economic structure. With the addition of the Allison Inn & Spa, the wine industry is beginning to make a larger impact, along with the associated tourism industry: bed and breakfasts, restaurants, art shops, wine-tasting rooms.

Retail Conditions

Newberg's close proximity to the Portland metro area and relatively low retail opportunities results in retail dollar "leakage" from the community. This means that fewer retail dollars stay in the community and continue to circulate within the local population. Support for this assertion of retail dollar leakage can be demonstrated through some simple calculations. By taking the total annual retail sales numbers of area, divided by the area's population, one gets a total annual retail spending per capita in that community. Using this formula, the following is a list of the annual retail sales per capita of similarly sized and situated cities in Oregon.

Table 12- 11: Population and Retail Sales (2007)

Geographic Area	Sales ($1,000)	Population	Annual Retail Sales Per Capita
Wilsonville	$873,067	18,814	$46,405
Roseburg	$781,574	20,906	$37,385
Sandy	$255,974	8,643	$29,616
Medford	$2,045,693	72,186	$28,339
Bend	$2,087,937	74,563	$28,002
Grants Pass	$862,526	33,171	$26,002
Klamath Falls	$498,773	19,662	$25,367
Woodburn	$441,704	22,044	$20,037
Redmond	$438,042	23,769	$18,429
McMinnville	$518,669	30,899	$16,786
Pendleton	$248,230	16,477	$15,065
Sherwood	$250,150	17,219	$14,528
Oregon	$50,370,919	3,747,455	$13,441
Newberg	**$289,314**	**22,193**	**$13,036**
United States	$3,917,663,456	301,621,157	$12,989
Ashland	$224,419	21,299	$10,537
Canby	$162,723	15,602	$10,430
Forest Grove	$116,579	20,402	$5,714
Central Point	$90,777	16,447	$5,519

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

Newberg's local retail spending is slightly below the state average. McMinnville's retail spending is higher than Newberg, but it also has more shopping opportunities. Ashland and Medford's relationship is much like Newberg's with the Portland metro area, with many Ashland

retail dollars likely to be going to Medford businesses. Other commercial centers around Oregon, especially those geared toward retail and tourism such as Wilsonville, Bend, and Woodburn, also attract more retail dollars per capita that the state average.

It is acknowledged that this calculation is simplistic. Many other variables would affect a more thorough analysis, such as total income, disposable income, geographic boundaries and population dispersion. However, it is probable that the biggest factor in retail dollar leakage remains the fact that small towns with limited shopping opportunities will always lose retail dollars to nearby urban centers.

Outside of Newberg, agriculture is still an important industry to the area's economy. The wine/tourism industry has an especially large impact upon Newberg. Many new businesses such as restaurants, bed and breakfasts, art galleries, and gift shops, have been established with the recognition that tourists would be a principal customer. The Yamhill Valley (consisting of portions of Yamhill and Polk counties) is the heart of Oregon's $576 million wine industry, with about 200 vineyards and 85 of Oregon's 200 wineries.[34] The wine industry in Yamhill County has grown exponentially over the last few decades.

III. Assessment of Community Economic Development Potential

This section, Assessment of Community Economic Development Potential (OAR 660-009-0015-4), determines the types and amounts of industrial and other employment uses likely to occur in the planning area, relating to the results of the Trends Analysis and Inventory, and considers the planning area's economic advantages and disadvantages.

State Employment Forecast

In December 2011, the Oregon Employment Department released its forecast for employment statewide for the period 2010-2020. The department forecasts that total state employment will grow at an average annual rate of 1.7% during that period. The forecast is shown in Table 12- 12 below.

[34] *News-Register*

Table 12- 12: Statewide Employment Forecast, 2010-2020

Industry	2010	2020	Change	% Change	AAGR
Natural resources and mining	50,900	58,900	8,000	16%	1.5%
Construction	67,600	86,100	18,500	27%	2.4%
Manufacturing	164,200	189,100	24,900	15%	1.4%
Trade, transportation, and utilities	309,300	359,400	50,100	16%	1.5%
Information	32,200	36,800	4,600	14%	1.3%
Financial activities	92,600	104,700	12,100	13%	1.2%
Professional and business services	182,300	231,400	49,100	27%	2.4%
Educational and health services	228,600	296,100	67,500	30%	2.6%
Leisure and hospitality	162,300	193,900	31,600	19%	1.8%
Other services	57,200	66,400	9,200	16%	1.5%
Government	298,900	321,300	22,400	7%	0.7%
Total payroll employment	**1,646,100**	**1,944,100**	**298,000**	**18%**	**1.7%**

Source: Oregon Employment Department, 2011

Regional Employment Forecast

In December 2011, the Oregon Employment Department also issued employment forecasts for 2010-2020 for the regions surrounding Newberg. The forecasts projects that employment growth in the region will exceed the state average. The Employment Department forecasts that employment in the region will increase by 20 percent over the coming decade. Table 12- 13 below shows the combined employment projections for Region 2 (Multnomah and Washington Counties), Region 3 (Marion, Yamhill, and Polk Counties), and Region 15 (Clackamas County). The combined projection was used because Newberg is almost centrally located within this six county region.

Table 12- 13: Combined Nonfarm Employment Projection for Regions 2, 3, and 15, 2010-2020 (Multnomah, Washington, Marion, Polk, Yamhill, & Clackamas Counties)

Industry	2010	2020	Change	% Change	AAGR
Construction	42,280	55,530	13,250	31%	2.8%
Manufacturing	105,810	121,260	15,450	15%	1.4%
Wholesale Trade	51,360	62,140	10,780	21%	1.9%
Retail Trade	101,160	117,130	15,970	16%	1.5%
Transportation, Warehousing & Utilities	32,560	39,120	6,560	20%	1.9%
Information	20,810	24,630	3,820	18%	1.7%
Financial Activities	61,230	69,950	8,720	14%	1.3%
Professional & Business Services	123,610	158,870	35,260	29%	2.5%
Education & Health Services	140,380	184,060	43,680	31%	2.7%
Leisure & Hospitality	92,400	112,380	19,980	22%	2.0%
Other Services	35,070	40,990	5,920	17%	1.6%
Government	161,030	174,110	13,080	8%	0.8%
Total	**967,700**	**1,160,170**	**192,470**	**20%**	**1.8%**

Source: Oregon Employment Department, 2011.

Newberg Employment Forecast

Newberg's employment forecast is based on the historic employment growth rate for Newberg, and the Oregon Employment Department's regional employment forecast. As noted in Table 12-8 on page 23, employment growth in Newberg historically has been strong and steady. Employment from 1992-2010 had an average annual growth rate of 3.1%. As noted in Table 12-13 above, the Oregon Employment Department projects overall employment in the region to grow at an average annual rate of 1.8% from 2010-2020.

It is reasonable to forecast that the future employment growth rate in Newberg will be close to the middle of these two rates. Newberg's comparative advantages listed in this report indicate that Newberg's historically strong employment growth should continue into the future. However, the regional growth projections suggest that, at least for the short term, Newberg's employment growth will not reach the historic rate of 3.1%. Long term employment growth should be higher than the projected shorter term regional growth rate for a number of reasons, including:

- Regional growth projections for the period through 2020 consider a slow but steady recovery from the recession from the late '00s. It is reasonable to assume that longer term growth will shake off the lingering effects of this recession.
- Over 80 percent of jobs are located in cities[35], so much more job growth can be expected

[35] *Oregon Blue Book*, "City Government in Oregon", 2011.

within cities than in the rural areas of the region

- Newberg's comparative advantages suggest that it is poised to capture more than its proportional share of regional employment growth, especially in sectors such as leisure and hospitality, manufacturing, education and health services, and construction.

Newberg forecasts that future employment in the Newberg urban area will grow at an average annual rate of 2.5%, which is midway between the historical employment growth rate and the regional forecasted growth rate. The employment projections are consistent with Newberg's economic development goals to bring more family-wage jobs to the area and to avoid becoming a bedroom community. The forecasted employment is shown in Table 12- 14.

Table 12- 14: Newberg Urban Area 2032 Employment Forecast

Year	2010	2032
Employment	8,919	15,355

Employment by Land Use Type

Newberg's future employment was allocated by land use type. Employment was divided into three land use types:

1. Industrial. This type typically includes uses such as manufacturing, repair and maintenance, truck yards, contractor storage, and warehousing. These typically would use land with some type of Industrial comprehensive plan designation.
2. Commercial. This type includes uses such as medical offices, business offices, beauty salons, hotels, some auto repair, various types of retail businesses, and restaurants. These uses would typically be located in a Commercial comprehensive plan district, but may also be found in Institutional, Residential-Professional, or other comprehensive plan districts.
4. Other. This type typically includes schools, churches, government water and waste water plants, on-site construction, and home occupations. These may be located in Residential, Public/Quasi-Public, or other comprehensive plan districts.

The projected percentage of employment in each of these land use types is shown in Table 12-15 below.

Table 12-15: Projected Distribution of Newberg Employment by Land Use Type

Industry	Percent of Employment in Industry	Land Use Type			Total
		Industrial	Commercial	Other	
Construction	4.30%	30%	10%	60%	100%
Manufacturing	24.30%	91%	5%	4%	100%
Wholesale Trade	1.30%	82%	5%	13%	100%
Retail Trade	9.40%	0%	99%	1%	100%
Transportation, Warehousing & Utilities	1.30%	82%	18%	0%	100%
Information	0.60%	40%	50%	10%	100%
Financial Activities	2.80%	0%	90%	10%	100%
Professional & Business Services	4.10%	14%	82%	4%	100%
Education & Health Services	33.40%	0%	40%	60%	100%
Leisure & Hospitality	11.60%	0%	95%	5%	100%
Other Services	4.90%	40%	40%	20%	100%
Government	1.90%	0%	35%	65%	100%
Total	**100.00%**	**28.30%**	**44.50%**	**27.20%**	**100%**

Source: Newberg Planning Division 2011

This distribution was developed by the Newberg Planning Division. The percent of employment in each industry was determined using the estimated Newberg employment. To determine the percent of employment in each land use type, Newberg Planning staff used two sources: first, it used the 2004 Johnson-Gardner *City of Newberg – Demand for Commercial and Industrial Land* report, which determined land uses types by percentage and industry; and second, Newberg Planning staff reviewed Newberg business license data from 2010, and adjusted the percentages from the Johnson-Gardner report based on observations from that data. Note that the business license data does list employment that is exempt from business licensing, such as the School District, but the data is limited because it does not list employment counts. Newberg Planning staff was able to make some estimates using the business license data. The observations from the business license data include:

1. More construction employment uses office space than the Johnson-Gardner estimate.
2. Other services is a broad category including things such as auto repair, equipment repair, beauty salons, and religious institutions. It appears this employment is split approximately 40% industrial, 40% commercial, and 20% other.
3. Government employment is largely City of Newberg employment. Future needs for future public works facilities are accounted for in Public/Quasi-Public land needs projections, so they were included in the "other" category rather than industrial to prevent duplication.

Also, note that the Johnson-Gardner report in some areas projects employment will use land in more than one category. While this was professional judgment, the table above adjusted the counts so employment appears in only one category.

Newberg's Comparative Advantages and Disadvantages

Comparative Advantages

1. Small town quality of life
    a. Relatively affordable housing.
    b. Attractive rural setting in heart of wine country.
    c. Attractive historic downtown.
    d. Full service city separate from Portland metropolitan area with deep sense of community and history.
    e. High level of community engagement.

2. Access to quality education and skills training
    a. George Fox University is very highly regarded. George Fox is listed among the top 100 colleges in the United States in *Forbes'* 2009-10 ranking of "America's best colleges." *U.S. News and World Report* named the University on its list of "Best National Universities," and was the only Christian college in the Pacific Northwest to make this list. The *Report* also cited an academic reputation survey of high school counselors that ranked George Fox University among the top 100 national universities. Moreover, it reported that more Portland-area valedictorians and straight-A seniors enroll at George Fox University than at any other private college in Oregon. *The Princeton Review* lists George Fox as a "Best in the West" selection.
    b. Portland Community College recently passed a bond measure that funded construction of a branch campus in Newberg. The College began to offer classes in the community in the fall of 2010. The College offers a wide range of academic and technical skills training that serve the needs of local citizens and businesses alike.
    c. The Newberg School District has a higher percentage of Newberg students that meet or exceed state standards in reading, mathematics, writing and science than state averages. Average student SAT scores are 1567 compared to Oregon average of 1550 and national average of 1511.

3. Established and growing industry clusters
    a. The percentage of employment in the manufacturing sector in Newberg is higher than the state average. The average wage is high in this sector.
    b. Dental equipment manufacturing cluster is very strong, including a world leader in this industry.
    c. The new $68.5 million Providence regional medical center has created hundreds of highly-skilled, well-paying job and solidified health care as one of Newberg's targeted industries. The hospital has also spurred development of retirement and health care facilities for seniors.

d. The wine/tourism industry in Yamhill County is world-renowned. Given Newberg's strategic location as the eastern gateway to the area's wine country from the Portland metropolitan region, this industry is expected to experience continued strong growth. Total direct spending for tourism in Yamhill County has gone from $29.1 million in 1991 to $60.7 million in 2003.[36] Businesses such as restaurants, bed and breakfasts, wine shops, and art galleries are benefiting from this rising industry and are actively pursuing these customers. In particular, Newberg's historic downtown has experience significant revitalization in recent years, much of it due to the increasing impacts of this industry. In 2009, The Allison, a large luxury inn and spa targeting wine tourists, was opened. This development was a significant investment in this local industry and a very demonstrative statement in its future.

4. Strong local support for business and employment opportunities
    a. Newberg commits staff resources to retain existing business and recruit new businesses.
    b. Newberg is committed to planning "shovel ready" industrial sites.
        i. Sportsman Airpark Master Plan preserves the functional aspects of this airport. It also reserves developable industrial land for businesses that would benefit from having close access to airport services.
        ii. The South Industrial Area Master Plan provides for the development of new industrial sites of various sizes that have good transportation access, especially to Interstate 5.
    c. The Chehalem Valley Chamber of Commerce has high membership and is very active in supporting members, business, and industry in the community.
    d. Coordination with Yamhill County ensures that land outside city limits is reserved for intended employment uses and not converted to residential or commercial uses.

5. Proximity to Portland metropolitan region
    a. Newberg has access to large market area, including the Portland-Vancouver area. This also provides access to other regions, including Seattle, the Bay area and even Asian markets.
    b. Newberg has access to major state highways: Highway 99W and Highway 219, and as short as a 15 minute commute to Interstate 5.
    c. Newberg has access to national/international transportation facilities, including air and water transportation facilities, at the Port of Portland.
    d. Newberg has strong relationships with other economic development organizations in the region.

6. Future Newberg-Dundee Bypass
    a. The Newberg-Dundee Bypass is included in Oregon's Highway Plan. The location EIS has been approved. Plans are currently underway to construct a first segment of the bypass in the mid 2010's.

[36] Dean Runyan Associates

b. The Bypass will provide improved transportation facilities that will benefit existing industrial users (airport, Highway 219) in south Newberg by allowing traffic from those areas to access Highway 99W and SW Portland area markets without routing truck traffic through downtown.
c. The Bypass will provide improved access to Newberg and the Portland region from I-5 (via Highway 219).
d. The Bypass will reduce traffic in downtown Newberg and facilitate the objective of having a pedestrian-oriented city with a strong retail center.
e. The Bypass will provide improved transportation facilities near flat serviceable land in south Newberg.

7. Oregon's Statewide Planning Goals. Economic development in Oregon is strongly influenced by many of these goals. In particular, Goal 9 requires cities to identify comparative advantages, targeted employment opportunities and site requirements and to reserve land for long-term industrial uses. Compared to national and international competitors, this required planning work can help ensure that Newberg's efforts in the retention and recruitment of businesses is targeted, efficient and effective.

Comparative Disadvantages

The global economy provides strong competition for local, regional and national manufacturers. Many other countries, such as China and India, are attracting manufacturing facilities through a growing, trained workforce with lower, average wages than this region. Some of Newberg's disadvantages in competing in a regional and national marketplace include:

1. Transportation and access issues:
    a. Congestion on Highway 99W and travel times to Metro area markets slows shipments of goods and material, employees, and customers.
    b. Truck traffic on Highway 99W prevents Newberg's historic downtown from achieving its full potential by creating an environment that is less-than pedestrian friendly.
    c. Although Newberg has easy access to I-5 via Highway 219 and McKay Road, the Donald/Aurora Interchange at I-5 has access and capacity issues that will likely require a reconfiguration or some other interchange redesign to handle increased traffic capacity from future development in the region.
    d. The Newberg-Dundee Bypass is a significant future advantage to Newberg. However, ODOT may want to limit development near the Bypass interchange with Highway 219 in the future to ensure that adequate volume and capacity standards are met. Development limitations may require trip caps or a restriction on certain high-traffic generating uses.

2. In 2012, Newberg lacks suitable industrial sites to meet needs of targeted employment opportunities:
    a. Many existing industrially zoned parcels are constrained by size, topography, or height restrictions.
    b. Some formerly viable sites have been lost due to needs for Bypass right-of-way acquisition.

c. Some existing sites are being reserved for future expansion of adjoining industrial users.
d. Cost of infrastructure to serve sites can be prohibitive.
e. Newberg lacks master planned industrial and business parks that allow for immediate development when industrial firms consider locating in the area.

3. Highly parcelized land outside the UGB limits alternatives for meeting identified site requirements. Prior to the full implementation of Goal 3 and 4 measures to protect agricultural land outside of the Newberg UGB, considerable rural residential development was permitted outside the Newberg city limits. As such, the small parcel sizes and rural homes and businesses outside of the Newberg UGB limit the availability of suitable employment sites in rural residential exception areas.

4. Newberg's commercial sector has been under considerable stress as retail paradigms have changed over the last few decades. Regional malls and the more recent development of "big-box" stores are strong competitors to Newberg businesses. While the volume sales model of these types of stores bring lower costs to consumers for goods, this pattern has had a negative impact on the relatively smaller retailers of the local economy. In addition, the ease of shopping through internet sales is being utilized by growing numbers of customers. Many locally-owned businesses find it difficult to compete under this new paradigm, a situation that has forced many of them to go out of business.

5. In addition, Newberg's close proximity to the Portland metro area and relatively low retail opportunities results in retail dollar "leakage" from the community. This means that fewer retail dollars stay in the community and continue to circulate within the local population.

6. Despite major investments in the last few years, SP Newsprint is experiencing financial pressures due to changing market conditions. The financial pressures on SP Newsprint are mostly on the macroeconomic scale, significantly reducing Newberg's ability to positively impact this situation.

7. Oregon's Statewide Planning Goals. Economic development in Oregon is strongly influenced by many of these goals. Balancing of these goals often creates a planning process for local economic development that is long, expensive, and uncertain: a process that is frequently incompatible with needs of an ever-increasingly fast-paced business world. The process can prevent including suitable industrial and employment sites when needed.

Special Opportunities

Beyond the regional economic markets, Newberg has several special opportunities to capitalize on its unique niche geographically and in the market place. These are discussed below.

Dental Equipment Cluster

Newberg is the home of A-dec, one of the largest dental equipment manufacturers in the world.

This also has spurred other dental equipment companies, such as DCI International and Beaverstate Dental, and several other industries that supply machined parts, electrical supplies, or other equipment. The dental industry is an expanding market, especially in Asian markets where dental care is increasing. There are over 30 billion teeth in China: if Newberg suppliers can capitalize on even a small part of this market, they could expand substantially.

Alternative Energies

As concerns of peak oil, global warming, and carbon emissions rise, so do opportunities for the alternative energy industry. Several Newberg firms already have begun to capitalize on this industry. Harris Thermal constructs heat exchange equipment that is used in the manufacture of biofuels. Climax Portable Machine Tools constructs equipment that is used in the maintenance of wind power turbines. Local companies such as Voltair are manufacturing wind turbines for private sale. The Newberg area has an expanding wind energy cluster of suppliers, manufacturers, and technicians. Newberg has excellent opportunities to capitalize on this market.

South Industrial Area

As noted in the discussion of regional industrial land availability on page 16, the region has a significant lack of suitable industrial sites. In particular, the region lacks large, flat industrial sites with good transportation access and available utilities. In addition, the state's Industrial Lands Advisory Committee found,

> *Land located at existing freeway interchanges, such as the Stafford District at I–205 and Stafford Road, Langdon Farms at the I–5 and Charbonneau exit, and the I–5 Donald/Aurora exit are logical market driven locations for large scale industrial and employment intensive development.* [37]

However, they also found:

> ***Donald-Aurora I–5 Interchange****—The Donald-Aurora interchange on I–5 is approximately 20 miles south of Portland. Although this is a prime location for industrial development when viewed from a market perspective, the land surrounding the interchange is zoned Exclusive Farm Use (EFU) and is in not within any jurisdiction's UGB. Given current land use laws these are substantial obstacles to development.* [38]

Newberg's South Industrial area is along Wynooski Road and Highway 219. Newberg recently prepared the *South Industrial Area Master Plan*, which envisions utilizing the area along Highway 219 south of Wynooski Road by including several large, flat parcels for future industrial use. The South Industrial Area is uniquely posed to accommodate industrial users in the region:

[37] *Industrial Lands Advisory Committee Report*, December 15, 2003
[38] *Industrial Lands Advisory Committee Report*, December 15, 2003

- It contains large, level sites. The area can accommodate employers needing sites of 10 acres up to 100 acres.
- The area is adjacent to Newberg's existing industrial areas, and is a logical extension of that area.
- It has excellent access. The area is a less than 15 minute drive to I-5 without traveling through any intervening urban areas. The future Newberg-Dundee bypass will travel east to the Portland metro area through no traffic lights until the Portland UGB. It will allow travel west to the Oregon Coast through only one stop light, and to the Mid-Willamette Valley with few stops.
- Newberg has the utility capacity to serve the area with relatively short extensions.
- The area has excellent riparian buffers consisting of two stream corridors between the proposed future industrial area and conflicting uses. No travel would be required through residential or commercial areas.

Were the area included in the Newberg Urban Growth Boundary, it certainly would attract the targeted industries Newberg is seeking.

Aviation Related Industry

Newberg is home to the Sportsman Airpark. This is a private/public use airport in the Urban Growth Boundary. The Sportsman Airpark Industrial District is situated next to the landing strip. The Sportsman Airpark District has three important advantages over other airport related industrial areas:

- Industrial land can be owned by individual users. In most industrially zoned districts near airports, land can only be leased to users, and "through the fence" use of adjacent industrial land is not allowed.
- All adjacent land is within the UGB.
- The airpark is adjacent to the Airpark Residential Zone, which allows business owners and entrepreneurs to live in close proximity to their planes.

With these advantages, the airpark presents excellent opportunities for small to medium industrial users. It can accommodate aircraft related industries, such as manufacture of airplane parts or aircraft maintenance. It can also attract entrepreneurial businesses that need to use a plane for business travel, visiting clients, or delivering goods. A good example of this is a new company in town, Voltair, which is constructing a new facility in the Airpark Industrial area. Voltair is a manufacturer of wind turbines and their location in the Airpark Industrial area will allow for quick access for maintenance crews to fly to eastern Oregon to service turbine installations.

Nursery and other Agricultural Products

As noted in the section *Yamhill County Agri-Business* on page 13, Yamhill County has developed the *Yamhill County Agri-Business Economic and Community Development Plan*. Of particular note in the plan is the predominance of the nursery and greenhouse crop industry in Yamhill County, following by the grass seed and fruit and nut products. All of these are present in the Newberg area. The plan identified needs for processing

facilities in the County for these and other agricultural products. The plan includes several strategies to promote the agricultural industrial. Of particular relevance to Newberg are the following recommended strategies:

> Rezoning to accommodate prototype development projects. *Analysis has revealed the types of representative projects needed to support agriculture and tourism lack adequate sites. Rezoning enables communities to place these projects where they "fit" and provide benefits to the community.*
>
> Site assembly. *Preparing land for development, from initial site selection through planning and marketing, is site assembly. To assure job growth and allow for new investment, communities will need to be proactive in identifying an adequate supply of properly sized, suitably zoned development sites and be active participants in the development process.*
>
> County-wide infrastructure strategy. *The most pressing problem for every community is infrastructure. Regional cooperation in Yamhill County to jointly plan for the future and secure adequate drinking water supplies can be a model for cost saving inter-agency arrangements for other services. Moving ahead with a reprisal solution for drinking water is critical for many Yamhill County communities.*[39]

Newberg has the infrastructure capable to support such processing facilities. The South Industrial area provides adequate sized sites that would accommodate small and large processing facilities.

Of course converting agricultural land to other uses should not be taken lightly, as that land is important to the agricultural industry. Newberg can assist in this respect by maintaining an urban growth boundary and providing adequate land within that boundary to meet urban land needs at relatively dense development levels. Agricultural land only should be included in the urban area where there is a demonstrated need.

Wine/Tourism Industry

The Chehalem Valley Chamber of Commerce recently branded the area as "the Gateway to Oregon Wine Country." Vineyards and wine productions is a booming business in the Chehalem Valley. This is attracting a great number of tourists, most with money to spend. This has spurred a number of associated economic opportunities, including:

- Accommodation and Hospitality services. Newberg is home to Oregon wine country's premiere facility: The Allison Inn and Spa. It also is home to several bed and breakfast inns and other hotels.
- Restaurant and wine tasting. Newberg features several opportunities for fine dining, including the Painted Lady and the Jory at the Allison. Downtown Newberg features several wine bars. There are many opportunities to expand fine and casual dining and

[39] Barney & Worth, Inc., page 43.

wine tasting.

- Arts and Culture. Newberg's downtown has a strong and growing arts community. The Chehalem Cultural Center recently opened and allows art creation and exhibits. This is a strongly growing sector with a lot of opportunity.
- Golf and Recreation. Newberg is home to the Chehalem Glenn Golf Course, one of Oregon's best. This publicly owned course attracts tourists from around the region. A third nine holes is planned, which will further promote the tourism in the area. Additional recreation opportunities, such as for bowling or a family fun center, are desired in the community.
- Riverfront commercial. Newberg has an adopted Riverfront Master Plan for areas along the Willamette River. This future development area will allow views of the Willamette while one shops, dines, or stays. The riverfront area provides access to Roger's Landing, one of the best and most used accesses to the Willamette River.

Retail

Newberg's retail objectives, beyond promoting the wine and tourism industries, focus on providing opportunities for local residents and businesses to obtain the goods the need without travel outside the community. Newberg does have strong retail areas, but sales of certain retail goods are either missing or undersupplied. In many cases the goods are available regionally, but Newberg residents must drive to other areas, such as Washington Square, Wilsonville, Sherwood, or McMinnville. As of 2012, the following retail services are either missing or undersupplied in Newberg: office supplies; electronics; clothing and footwear; sewing supplies; sporting goods; appliances; whole and natural foods. Additional retail services in these areas would be welcome.

IV. Newberg's Economic Development Strategy

Capitalizing on Comparative Advantages & Addressing Comparative Disadvantages

Table 12- 16: Strategies to Capitalize on Comparative Advantages

Advantage	Strategy / Action
1. Small Town Quality of Life	• Continue to provide relatively affordable housing opportunities. • Minimize adverse impacts on existing and planned residential neighborhoods from conflicting employment opportunities. • Continue revitalization efforts of historic downtown. • Support organizations that foster "social capital". • Work to improve the pedestrian/bicycle network in Newberg. *(Applicable Comprehensive Plan policies: 1.p., 1.q., 3.a.)*
2. Access to Quality Education and Skills Training	• Continue to support the Newberg School District, George Fox University, Portland Community College, and other public and private schools in their efforts to train and motivate the kind of workforce required by existing and future employers in Newberg. *(Applicable Comprehensive Plan policies: 1.f., 1.q.)*
3. Strong Established and Growing Industry Clusters	• Provide sufficient land near existing industrial areas to allow for expansion. • Provide suitable sites with characteristics required by such industries to take advantage of industrial clusters in Newberg. • Encourage the reuse/redevelopment of properties in zones allowing business. *(Applicable Comprehensive Plan policies: 1.b., 2.e., 2.g.)*
4. Strong Local Support for Business and Employment Opportunities	• Continue to plan for future employment opportunities by providing suitable sites for industrial (export) and commercial uses. • Continue to work collaboratively with the State, Yamhill County, and local businesses to fund infrastructure and planning necessary to maintain and attract desired employment. • Continue to work with and support the Chehalem Valley Chamber of Commerce. *(Applicable Comprehensive Plan policies: 1.m., 1.n., 1.o., 3.b.)*
5. Proximity to Portland Metropolitan Region	• Continue to work with Metropolitan area partners in promoting the economic advantages of the region. • Provide opportunities for identified regional employment clusters in Newberg. • Continue to advocate for improved access to regional markets, via Highways 99W and 219 and the Interstate. • Continue to maintain rail and air access opportunities. *(Applicable Comprehensive Plan policies: 1.f., 1.o., 2.g.)*
6. Future Newberg-Dundee Bypass	• Continue to work with the Oregon Legislature and State agencies to build political support and ensure funding for the Bypass. • Encourage support, funding and construction of the full Bypass project. *(Applicable Comprehensive Plan policies: 1.o.)*
7. Oregon's Statewide Planning Goals	• Newberg has taken advantage of Oregon's Economic Development Program (Goal 9) by identifying comparative advantages (and disadvantages), targeting export-based employment clusters, identifying and providing for the site requirements necessary to maintain and attract such clusters in Newberg, and coordinating with Yamhill County and affected state agencies to retain and provide services to suitable employment sites. Newberg will continue to coordinate with these agencies. *(Applicable Comprehensive Plan policies: 1.f.)*

Table 12- 17: Strategies to Address Comparative Disadvantages

Disadvantage	Strategy / Action
1. Transportation and Access Issues	• Continue to work with the Oregon Legislature and State agencies to ensure funding for the Newberg-Dundee Bypass. • Continue to advocate for Highway 99W improvements to reduce congestion and maintain regional connectivity. • Continue to work with ODOT for review of all development proposals in areas that may impact a state highway facility. *(Applicable Comprehensive Plan policies: 1.o.*)
2. Lack of Suitable Employment Sites	• Newberg has considered local, regional, state and national economic trends and identified industry clusters that the City has a reasonable likelihood of attracting to the community. • Newberg has also researched and identified the site characteristics demanded by firms within these industry clusters. Newberg is actively planning for a future industrial area that will meet both the industrial site characteristics and the land needs of the city's population over the next 30 years. *(Applicable Comprehensive Plan policies: 2.h., 2.g.)*
3. Limited Suitable Land Supply Outside UGB	• After considering the potential for rural residential exception areas to meet identified site requirements, the City has selected sites on agricultural land that will be reserved for identified employment needs. *(Applicable Comprehensive Plan policies: 2.e., 2.g.)*
4. and 5. Stressed Commercial Sector and Retail Dollar Leakage	• Recruit businesses that can fulfill commercial needs that are currently being unmet locally. • Support small businesses that are adjusting these new retail realities by either focusing on high quality customer service and/or gearing their business plans toward niche markets. • Encourage local retail businesses to improve their online presence. *(Applicable Comprehensive Plan policies: 1.c., 1.i).*
6. Market Pressures on SP Newsprint	• Newberg will continually look for opportunities to work with SP Newsprint to help reduce their operational costs. *(Applicable Comprehensive Plan policies: 2.d.)*
7. Oregon's Statewide Planning Goals	• Newberg will continue to pursue Urban Growth Boundary amendments and Urban Reserve expansions to provide adequate land for future uses. *(Applicable Comprehensive Plan policies: 1.f.)*

Regional Focus

Newberg has recognized the importance of being part of a shared, regional economic vision. *Beyond the Vision: A Strategic Plan for the Chehalem Valley* is a document that was created cooperatively between five governmental entities located within the Chehalem Valley. This document was adopted by the Newberg City Council in January 2005. One section of this document, called *Economy and Employment,* describes the economic future of the area as follows:

> *A diversified economy provides balanced economic opportunities for the residents of the Chehalem Valley. Agriculture and agribusinesses are an important component of the local economy. The natural beauty of the area encourages*

tourism and the wine industry. A carefully targeted retail recapture strategy has encouraged more local shopping and minimized buying outside of the area. Downtown areas are vibrant commercial areas that support the local economy.

Clean industries have been developed using a "campus" design. Plenty of family wage jobs are available for citizens of the area. Tourism is a major economic force, its strengths based on the premise that the Chehalem Valley is 1) the gateway to the wine country; 2) characterized by a clean and comfortable environment; and, 3) offers the historical experience of a friendly, small town and village America in the earlier period of the 20th century. As a destination location for visitors, the community of Dundee now has two small exclusive hotels and bed and breakfast inns. The service industry has expanded, with the health industry and health research being a major provider of employment in this sector of the economy.[40]

Key strategic steps laid out for the *Economy and Employment* section of the plan are as follows:

- Hold a broad community forum on economic development to build consensus.
- Invigorate the Chamber of Commerce Economic Development Committee.
- Seek financial aid in the form of grants.
- Develop community college training programs tailored to the labor force needs of prospective employers.

The regional economic development paradigm is expected to continue in the foreseeable future. Newberg has worked extensively with the Mid-Willamette Valley Council of Governments and the Oregon Business Development Department for many years. With an understanding that Newberg's economic future is likely to be strongly linked with fortunes of the Portland region, the City has recently developed relationships with economic development organizations in the metropolitan area. In the summer of 2004, the City of Newberg joined the Association of Regional Economic Development Partners, Inc. (now the Portland-Vancouver Regional Partners Council for Economic Development.). The Partners is "a public-private partnership that focuses on shared economic priorities and works to implement business retention, expansion, and recruitment as well as marketing strategies and recommendations for policy development. The members are public and private sector economic development professionals in the region who have worked collaboratively for more than 10 years to retain and recruit businesses, and promote the metropolitan region as a vital economic center."

On January 3, 2005, the Newberg City Council passed Resolution No. 2005-2554, which stated the city's support for the framework of the Portland Regional Business Plan of the Regional Economic Development Partners.

[40] *Beyond the Vision: A Strategic Plan for the Chehalem Valley*

Locally Targeted Economic Development Industry Clusters (Targeted Industries)

The majority of Newberg's economic development efforts should continue to be focused upon supporting existing local businesses. In the economic development profession, there is a general principle call the "80/20 rule", which means that 80 percent of an area's economic development efforts should be dedicated towards the retention and expansion of existing local businesses. In addition, it is often said that "Your good businesses are your competitor's best recruitment prospects!" Therefore, a community should ensure, as much as possible, that their local businesses are content and prosperous, or else they may look elsewhere to do business. In summary, it is far easier, effective and efficient to try to maintain and expand your economy through one's local industries than to attract new ones.

As important as Newberg's retention efforts are for its economic health, recruiting specific new businesses to Newberg such as those listed in the Portland-Vancouver Regional Business Plan and the Newberg EOA is a critical aspect of Newberg's economic development strategy. Some of these businesses can be recruited to strengthen existing clusters within the community. Others are new types of businesses that can be attracted based on combination of three factors: a business' cluster strength in the Portland region; Newberg's close proximity to the metro area, and Newberg's unique high quality of life compared to other communities in the region. The City's business recruitment efforts should be focused on identified strong, traded-sector clusters. These types of businesses will bring new wealth to the community and diversify the local economy, thereby creating an economic base that is stronger and more stable. Table 12- 18 on page 44lists industries on which Newberg should focus its economic development efforts.

Table 12- 18: Newberg Targeted Industries

Business Cluster	Targeted business types
Manufacturing and Industry	
High Tech Manufacturing	Semiconductors/silicon, imaging & display technology
	Nano & micro technology, cyber-security, health/medical information technology
	Biotech/bioscience (medical devices, bioinfomatics, pharmaceuticals, genomics, anti-virals)
General Manufacturing	Dental equipment
	Metals, machinery, transportation equipment
	Lumber and wood products (value added)
	Sustainable industries (renewable energy, resource efficiency technologies, sustainable building materials, green chemistry)
	Distribution & logistics
	Sports apparel/recreation-related products
Aviation related	Specialty aircraft equipment, aircraft repair, machine shops, small entrepreneur business
Agriculture	Wineries
	Specialty foods and food processing
	Nursery and agricultural products (value added)
Services	Professional services architecture, engineering, legal and financial services, etc.
	Creative services (advertising, public relations, film and video, web/internet content and design)
Health Care	
	Providence Medical Center Expansion, medical offices, senior services
Higher Education	
	Portland Community College campus, George Fox University expansion, high school vocational training and college preparedness, private post-secondary training
Wine/Tourism	
	Wineries and tasting rooms, restaurants, art studios, theater and entertainment, recreation (golf, bowling), conference facilities, specialty retail

Source: Newberg Planning Division

Comprehensive Plan Policies and Recommended Supportive Economic Development Actions

Newberg has developed a vision for the community's economic future. The City of Newberg's adopted Comprehensive Plan includes a list of goals and policies that help shape Newberg's future economy (Section H. The Economy). The following is a list of Newberg's recommended economic development actions and the applicable Comprehensive Plan policies they support. All of the Comprehensive Plan policies are from Section H (The Economy) and support the larger goal "To develop a diverse and stable economic base."

1. Work with the State to "certify" industrial sites to shorten the development time of

projects and provide certainty to a business that regulatory and permitting issues will not delay the project's timeline.
Applicable Comprehensive Plan policies: 1.f., 2.g.

2. Identify and implement cost and time saving measures that improve the development permitting process.
   Applicable Comprehensive Plan policies: 2.d.

3. Develop a financial incentives "toolbox" to recruit new businesses and encourage existing business expansions. The incentives should be applied only after a proposed project has been reviewed by a rigorous analysis that demonstrates a clear benefit to the City.
   Applicable Comprehensive Plan policies: 1.b., 1.g.

4. Maintain a useful economic development website that is easy to navigate and contains substantive content that meets the needs of business.
   Applicable Comprehensive Plan policies: 1.a., 1.g.

5. Work with local, regional and state educational and training resources (private and public) to assist with the workforce training needs of businesses and provide opportunities for workers to voluntarily upgrade their skills. The available workforce pool in the Newberg region is approximately 223,000. The regional workforce is estimated by using the assumption that a 23 minute mean commute time (2000 Census) draws workers from an approximately 15 mile radius from the center of Newberg Oregon is recognized for having an educated workforce, one with good basic work skill sets that allows them to be relatively easily trained.
   Applicable Comprehensive Plan policies: 1.c., 1.f.

6. Gauge the health of local businesses regularly and identify how the City can help resolve issues, when feasible. Focus should be on businesses of the traded-sector and local clusters. Anticipate local problem areas by keeping abreast of regional, national, and international business trends.
   Applicable Comprehensive Plan policies: 1.p.

7. Develop closer ties to organizations/businesses located within the Portland area with a similar interest in regional economic development (e.g. Regional Economic Development Partners, future Portland Economic Development District, etc). However, joining METRO will not be considered. Reevaluate current relationship with Mid-Willamette Valley Community Development Partnership.
   Applicable Comprehensive Plan policies: 1.f.

8. Develop a Downtown Revitalization Master Plan prior to the construction of the Newberg-Dundee Bypass. Identify funding sources necessary to implement the plan.
   Applicable Comprehensive Plan policies: 3.a.

V. Industrial and Commercial Land Needs and Supply

To encourage and accommodate future commercial and industrial growth, Newberg must have buildable land readily available with characteristics necessary to be competitive in the regional economic development market. Newberg's Ad Hoc Committee on Newberg's Future recently completed an analysis of the community's future land use needs. That analysis is described in the *Report to Newberg City Council; Recommendations for Newberg's Future*, which was accepted by the Newberg City Council on July 21, 2005. On August 1, 2005, the City Council initiated the amendment process for the comprehensive plan changes recommended in the Report. This section includes the Committee's recommendations for commercial and industrial land needs for Newberg's future. This also includes updates made since then to reflect development since the time of the report. In addition, this section details Newberg's employment projections, industrial and commercial land needs, industrial site suitability characteristics necessary to meet the projected land need, and current industrial and commercial buildable land supply.

Industrial Land Need

A variety of parcel sizes, building types, and land use designations are required to provide suitable sites to attract targeted industry clusters. In 2005, the *Report to Newberg City Council; Recommendations for Newberg's Future* documented that there was a general lack of suitable large (20+ acre) industrial sites with access to a state highway and physical separation or transitional buffering from residential neighborhoods. The report documented an additional need for 4-5 large (20+ acre) industrial sites for the period 2005-2025. Industrial land needs for the 2005-2025 period totaled about 216 acres, with an additional 6 sites needed for the period 2026-2040. The assumption was that approximately 50 percent of future industrial employment will take place on large parcels.

Industrial Employment Forecast

Table 12- 19 on page 47 projects the future industrial space utilizing employment in Newberg through 2032. The table uses the total employment projected in Table 12- 14 on page 30, and the distribution of employment shown in Table 12-15 on page 31.

Table 12- 19: Industrial Land Using Employment Forecast Through 2032[41]

Industry	2010 Total Emp.	%Industrial Space Utilizing	2010	2032
Construction	387	30%	116	200
Manufacturing	2,164	91%	1,969	3,390
Wholesale Trade	115	82%	94	162
Retail Trade	837	0%	-	-
Transportation, Warehousing & Utilities	119	82%	98	168
Information	51	40%	20	35
Financial Activities	253	0%	-	-
Professional & Business Services	370	14%	52	89
Education & Health Services	2,978	0%	-	-
Leisure & Hospitality	1,033	0%	-	-
Other Services	439	40%	176	302
Government	173	0%	-	-
Total	**8,919**	**28.3%**	**2,525**	**4,347**
Cumulative from 2010				1,822

Industrial Land Needs by Site Size

Table 12- 20 links projected industrial employment from Table 12- 19 on page 47 with potential site size ranges. While examples can be found of large sites with few employees, and small sites with many employees, larger employers generally require larger sites. This table is one way to address that dynamic while relating projected industrial site needs to adopted employment projections.

The data is based on the assumption that most sites under 10 acres will be located in industrial parks, which will require dedication of an average of 15% right-of-way for streets and utilities. For sites over 10 acres, the table assumes 5% of the area for streets and utilities. The table also includes assumptions that most (55%) of Newberg's future industrial employment will be located on sites 10 acres or less, and that one-third of those future new industrial firms 2-10 acres in size, and one-half of firms under 2 acres in size, will find a site through infill, redevelopment or intensification of existing employment land uses. The table also assumes that for sites over 10 acres, one currently unoccupied site (Suntron) will be reoccupied, and that some infill will occur within existing larger sites.

Table 12- 20 shows the 2032 need for approximately 26 acres of very small (under 2 acre) sites, 81 acres of small (2- to 10-acre) sites,[42] two sites in the 10-30 acre range, and one site in the 30- to 50-acre range, for a total industrial site need of 191 gross buildable acres by 2032. These

[41] The most recent employment data available for Newberg is 2010 data, and the region employment projections released in December 2011 use 2010 as a base year.
[42] Much of this site size need can be most efficiently accommodated by master planned business parks.

needs for small and medium sites are consistent with recent demand for industrial land in Newberg prior to the recession. From 2005 to 2009, there were 24 acres of industrial land developed. A number of industrial employers expanded or constructed new facilities over that time, including Action Equipment, Climax Portable Machine Tools, Harris Thermal, A-dec, and Freeman Manufacturing.

Table 12- 20: Site Size Distribution by Firm Employment Through 2032[43]

Emps. per Firm	Percent of Emp.	Number of New Emps.	Number of Firms	Sites Needed	Size Range (Acres)	Ave. Site Size (Acres)	Ave. ROW Need (Acres)	Gross Buildable Acres Needed
0-9	15%	273	46	23	<2	1	0.15	26
				23	*infill & redevelopment*			0
10 to 74	40%	729	21	14	2 - 10	5	0.75	81
				7	*infill & redevelopment*			0
75 +	45%	820	2	2	10 - 30	20	1.00	42
			1	1	30 - 50	40	2.00	42
			1	1	*infill & redevelopment*			0
Total	**100%**	**1,822**	**71**	**71**				**191**

Source: Winterbrook Planning 2009, Newberg Planning Division 2012

Table 12- 21 links targeted industry clusters discussed in this EOA with uses identified in the 2005 *Report to Newberg City Council*. These clusters and uses were allocated site size ranges based on ECONW data and a meeting with Oregon Business Development Department (OBDD) representative Tom Fox on September 10, 2009. Site size ranges were verified against OBDD data relating to real firms seeking sites in Oregon, in the targeted industry clusters. Industry clusters containing firms that could potentially require large sites – 10-30 acres or 30-50 acres in size – are identified by the Potential Large Site Category columns. Thirteen industry clusters include firms that could potentially require 10-30 acre sites, and nine include firms that could potentially require 30-50 acre sites.

OBDD reviewed the site size ranges by targeted industry cluster in Table 12- 21and supports the estimated site sizes and ranges as viable and marketable for Newberg's targeted industries.

[43] Note that there were no buildable industrial sites developed from 2010-2012.

Table 12- 21: Site Size Ranges by Targeted Industrial Cluster and Sector

Industry Cluster	Uses	ECO/WB* (Acres)	OBDD** (Acres)	Newberg Examples (Acres)	Potential Large Site Categories	
					10 - 30	30 - 50
High Tech Manufacturing	Electronics, Other	10 - 30	10 - 60	6 - 55	X	X
	Health, Nano/Micro Tech, Cyber Security	5 - 20		6 - 55	X	X
	Bio-Tech/Bioscience/ Pharmaceuticals, Health Services	5 - 40	2 - 60		X	X
General Manufacturing	Dental Equipment	5 - 40		2 - 55	X	X
	Fabricated Metals, Plastics	10 - 20	10 - 20	3 - 7	X	
	Transportation Equipment	10 - 30	10	1	X	
	Industrial Machinery	10 - 20	10 - 20	3 - 6	X	
	Lumber and Wood Products (Value Added)	1 - 10	10	243	X	X
	Sustainable Industries	5 - 25	25 - 200	1 - 7	X	X
	Distribution and Logistics	5 - 60	30 - 60		X	X
	Sports and Recreational Campus	10 - 50			X	X
Airport Related Industrial	Specialty Aircraft Equipment, Aircraft Repair, Machine Shops, Small Entrepreneur Business	1 - 70	70	1 - 3		
Agriculture	Winery			3 - 5		
	Specialty Foods and Food Processing	1 - 10	10 - 150	5	X	X
	Nursery and Ag Products (Value Added)	1 - 10		2 - 13	X	
Services	Professional Services	1 - 5		1 - 2		
	Creative Services, Printing, Publishing	1 - 10		1 - 2		

*ECO/WB: EcoNorthwest and Winterbrook Planning
**Outside Investment Prospects, OECDD (OBDD), Oct 2008

Table 12- 22 arranges the identified targeted industry clusters and sectors by potential site sizes, and associates those sizes with existing Newberg industries. As shown in Table 12- 22, some industry clusters and sectors appear in multiple site size categories due to wide potential ranges. Of note, Newberg's existing large industrial sites (A-Dec and SP Newsprint) are over 50 acres in size.

Newberg has an excellent example of a high tech traded-sector manufacturing cluster – three large firms in the dental industry. A-Dec, A.R.E. Manufacturing, and Dental Components Inc. employ slightly over 1,000 people on 67 acres of industrial land. It is not unreasonable for Newberg to assume similar success with another targeted-industry cluster. As such, 10-30 and 30-50 acre sites should be included to provide the City with this opportunity.

Table 12- 22: Targeted Industry Clusters and Sectors by Site Size Ranges and Existing Newberg Industrial Firm Examples

Site Size Range	Industry Clusters/Uses	Newberg Industry Examples
<10 Acres	• Health, Nano/Micro Tech, Cyber Security • Bio-Tech/Bioscience/Pharmaceuticals • Dental Equipment • Fabricated Metals, Plastics • Lumber and Wood Products (Value Added) • Sustainable Industries • Distribution and Logistics • Airport Related Industrial • Winery • Specialty Foods and Food Processing • Nursery and Ag Products (Value Added) • Professional Services • Creative Services	• Climax Portable Machine Tools • PPM Technologies • A.R.E. Manufacturing • Dental Components Inc. • Ushio Oregon • Harris Thermal Transfer Products • Airpark Business Complex
10 – 30 Acres	• Electronics • Health, Nano/Micro Tech, Cyber Security • Bio-Tech/Bioscience/Pharmaceuticals • Dental Equipment • Fabricated Metals, Plastics • Transportation Equipment • Industrial Machinery • Lumber and Wood Products (Value Added) • Sustainable Industries • Distribution and Logistics • Sports and Recreational Equipment Campus • Specialty Foods and Food Processing • Nursery and Ag Products	• Suntron Corporation[44]
>30 Acres	• Electronics • Health, Nano/Micro Tech, Cyber Security • Bio-Tech/Bioscience/Pharmaceuticals • Dental Equipment • Lumber and Wood Products (Value Added) • Sustainable Industries • Distribution and Logistics • Sports and Recreational Equipment Campus • Specialty Foods and Food Processing	• SP Newsprint Company • A-dec, Inc.

[44] Suntron closed operation in Newberg in 2010.

Industrial Site Suitability Requirements

Cities are required by OAR 660 Division 9 to identify required site types to accommodate expected employment growth based on the site characteristics typical of expected uses. Site characteristics are attributes of a site such as shape, topography, visibility, infrastructure, proximity to facilities and transportation infrastructure. Many common elements of industrial site requirements can be found in the many Economic Opportunities Analysis reports from around the state that we reviewed. ECONorthwest completed many of the EOAs, and concludes in these plans that "previous research conducted by ECO has found that while there are always specific criteria for individual firms, many firms share common site criteria. In general, all firms need sites that are relatively flat, free of natural or regulatory constraints, with minimal residential conflicts, and located with good access to transportation, public facilities and services."[45] This section details Newberg's specific industrial site suitability characteristics and why each is important.

State Rules Governing Site Suitability Characteristics

There are many state rules and goals that govern economic development planning for cities, and those rules specify certain requirements and guidelines for site suitability characteristics. The applicable rules and guidelines from OAR 660 Division 9 (Economic Development) and Statewide Planning Goal 14 (Urbanization) are listed below.

OAR 660-009-0005 Definitions

(2) Development Constraints" means factors that temporarily or permanently limit or prevent the use of land for economic development. Development constraints include, but are not limited to, wetlands, environmentally sensitive areas such as habitat, environmental contamination, slope, topography, cultural and archaeological resources, infrastructure deficiencies, parcel fragmentation, or natural hazard areas.

(3) "Industrial Use" means employment activities generating income from the production, handling or distribution of goods. Industrial uses include, but are not limited to: manufacturing; assembly; fabrication; processing; storage; logistics; warehousing; importation; distribution and transshipment; and research and development. Industrial uses may have unique land, infrastructure, energy, and transportation requirements. Industrial uses may have external impacts on surrounding uses and may cluster in traditional or new industrial areas where they are segregated from other non-industrial activities.

(11) "Site Characteristics" means the attributes of a site necessary for a particular industrial or other employment use to operate. Site characteristics include, but are not limited to, a minimum acreage or site configuration including shape and topography, visibility, specific types or levels of public facilities, services or energy infrastructure, or proximity to a particular transportation or freight facility such as rail, marine ports and airports, multimodal freight or transshipment facilities, and major transportation routes.

OAR 660-009-0015 Economic Opportunities Analysis

[45] Common wording found in the EOA reports done by ECONorthwest for Cottage Grove (2009), Springfield (2009), Ashland (2007), McMinnville (2001).

(2) Identification of Required Site Types. The economic opportunities analysis must identify the number of sites by type reasonably expected to be needed to accommodate the expected employment growth based on the site characteristics typical of expected uses. Cities and counties are encouraged to examine existing firms in the planning area to identify the types of sites that may be needed for expansion. Industrial or other employment uses with compatible site characteristics may be grouped together into common site categories.

Statewide Planning Goal 14 - Urbanization
In determining need, local government may specify characteristics, such as parcel size, topography or proximity, necessary for land to be suitable for an identified need.

LUBA 2010-015 & Court of Appeals Decisions
On February 1, 2010, the Newberg City Council adopted Ordinance 2010-2723, updating its EOA. Friends of Yamhill County and several citizens appealed the decision to the Land Use Board of Appeals (LUBA) in February 2010. LUBA remanded the EOA and ruled on five of the six arguments presented by the petitioners, with the heart of the decision centering on how to define needed site suitability characteristics. LUBA ruled that "site characteristics are properly viewed as attributes that are (1) typical of the industrial or employment use and (2) have some meaningful connection with the operation of the industrial or employment use." (*Friends of Yamhill County v. City of Newberg*, Or LUBA (August, 2010)). The petitioners appealed LUBA's remand order to the Court of Appeals for judicial review in September 2010.

The Court of Appeals held oral argument in November 2010 and affirmed LUBA's decision on February 16, 2011. The petitioners had initially appealed for the Court to review the entirety of LUBA's ruling; however, the Court addressed only the site characteristics argument. The Court stated the following in their affirmation:

"In that statutory and regulatory context, we agree with LUBA that 'site characteristics' need not be 'indispensable' to a particular use in order to be 'necessary for a particular industrial or other employment use to operate.' The intent of Division 9 is to ensure that there is an 'adequate supply of land for economic development and employment growth in Oregon,' OAR 660-009-0000, which is vital to the health, welfare, and prosperity of the state. … That overriding intent to allow and plan for anticipated economic growth – in part, through the identification of 'site characteristics' that make the land 'suitable' to meet the needs of anticipated growth – suggests something other than petitioners' strict 'indispensability' test that would take into consideration only those 'site characteristics' without which particular industry and employment uses could not operate. Rather, the planning scheme (based on projections and economic trends) suggests, as LUBA adopted, a more pragmatic approach toward accommodating economic growth: That 'necessary' site characteristics are those attributes that are reasonably necessary to the successful operation of particular industrial or employment uses, in the sense that they bear some important relationship to that operation." (*Friends of Yamhill County v. City of Newberg*, Or App (February 16, 2011)).

Background on Newberg's Industrial Site Characteristics

Newberg's industrial site characteristics come from many different sources, and are representative of what is typical for our city and region. To determine the suitable industrial site

characteristics for Newberg, we used the following sources:

- Interviews with local businesses – Climax Portable Machine Tools, ARE Manufacturing, Harris Thermal, and Owen Roe Winery – and with a local industrial land broker, Mike Gougler.
- Inventory of existing industrial sites in the region – sites in Canby, Forest Grove, McMinnville, Newberg, Sherwood, Tualatin, Wilsonville, and Woodburn – resulting in the report *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses* (Newberg Planning Division, 2011).
- Inventory of the Economic Opportunities Analysis plans of other cities to gather information about their industrial site characteristics – Newberg looked at the economic opportunities Analyses for the Cities of Ashland, Springfield, McMinnville, Cottage Grove, Silverton, Klamath Falls, and Cascade Locks.
- Review of statewide RFPs for industrial land requests.
- Review of materials from Business Oregon, including the State of Oregon Industrial Development Competitiveness Matrix and the application for Oregon Industrial Site Certification.
- Reports and materials from the Department of Land Conservation and Development, including a memo on Tips for Conducting an Economic Opportunities Analysis, a fact sheet on Economic Opportunities Analyses, Goal 9 Handbook – Appendix A: Glossary, and *Sufficiency of Commercial and Industrial Land in Oregon - Recommendations for Oregon Communities* (2002).
- The *Ad Hoc Committee on Newberg's Future Report to City Council* (2005), which specified site characteristics for each land type. This report included expert materials from Winterbrook Planning and ECONorthwest, in addition to interviews with local businesses.
- Other reports, including the following: *Methods for Evaluating Commercial and Industrial Land Sufficiency: A Recommendation for Oregon Communities*, Otak, Incorporated and ECONorthwest (2002); *Portland Strategy for Economic Vitality* (2002); *Industrial/Business Park Standards: Rural Regions*, Deloitte & Touche (2001); Ohio State University Extension Fact Sheet – Characteristics of an Industrial Site; Alabama Cooperative Extension System – Creating Industrial Sites (1999).

The research led us to establish our industrial site suitability characteristics in the categories of individual site size, industrial district size, topography, proximity and compatibility as shown in Table 12- 23 below. Each category is explained in further detail in the sections below.

Table 12- 23: Required Industrial Site Suitability Characteristics

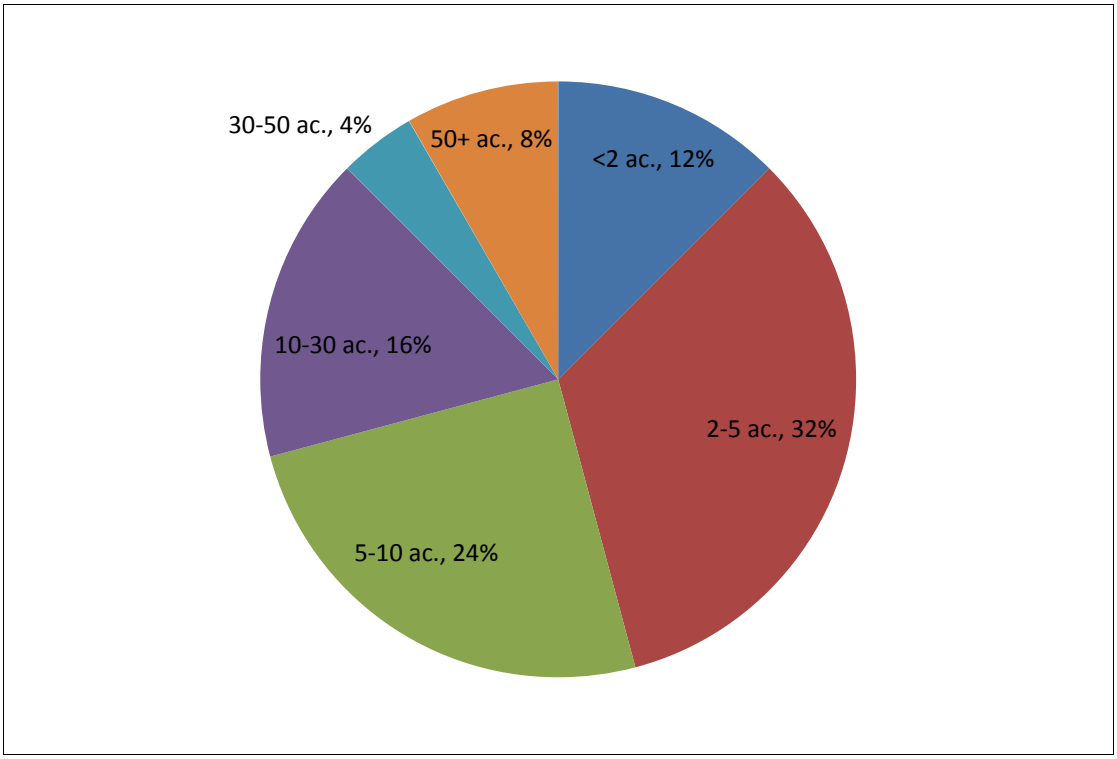
Required Site Characteristic	Description
Site Size	• Inventory to include a sufficient number of sites within each site category to meet identified needs (<2 buildable acres, 2 to 10 buildable acres, 10 to 30 buildable acres, and 30 to 50 buildable acres). • Site contains a parcel or group of parcels in close proximity with buildable land that contains at least 20 buildable or industrially developed acres (or smaller if adjacent to existing industrial district).
Topography	Exclude: • Slopes of 10% or greater, • Sites that are not predominantly less than 5% slope within buildable areas, and • Areas within stream corridors and wetlands.
Proximity	Include parcels or contiguous group of parcels: • Within, or adjacent to existing UGB, or as part of group of parcels in the vicinity of the UGB that immediately could be added to the UGB. • Adjoin an existing industrial or commercial area, or an area with sufficient buildable land to allow expansion of the industrial district. • That have suitable truck access to a state highway or arterial street within 1/4 mile.
Compatibility	Exclude sites that: • Abut residential neighborhoods on more than 25% of the site perimeter unless effective topographical buffers are present, such as a stream corridor, arterial street, state highway, rail line, or park. • Require truck traffic to travel through or adjacent to a residential neighborhood to reach an arterial street or state highway.

Industrial Site Size

The most basic characteristic needed by industrial users is site size. Industrial users need adequate land to site buildings, storage areas, outdoor production areas, parking areas, and on-site circulation. They also need or are required to have land for utilities, landscaping, environmental mitigation, and security. Some sites require buffers for noise, smell, vibration, and visual barriers. In addition, industries now find needs to provide amenities for employees such as outdoor park-like or recreation areas for lunches, breaks, or fitness, to increase morale and productivity. One Newberg industrial representative stated that they would like to incorporate a park area for employees if and when they need to move their facility to a new area in order to provide a quality work environment (they are currently constrained on their site and will need to move with any future growth of their business). These quality of life factors are included in the site size calculation that firms make when looking for a new site. As a result, most industrial sites are only 40% to 60% developable for basic industrial use with remaining areas used for parking, landscaping, buffers, utilities, environmental protections, employee break areas, and security. In addition, many industries require land for long-term expansion so that they aren't forced to move their business down the road or split their sites, resulting in lost production and investment.

Site size needs vary widely by industry. In interviews, local industrial businesses told us that the minimum site size they would need was typically 5 – 10 acres minimum for each business. The Business Oregon Industrial Development Competitiveness Matrix lists site size requirements for ten categories of businesses. The smallest site size listed is 3 acres for call center/business services and 5 acres for rural/frontier industrial. Neither of those are likely business types that would apply to Newberg. The next smallest site size listed is 10 acres minimum for general manufacturing. The site sizes go up from there to 200 acres minimum for regional distribution centers. [46] In addition, a review of recent RFP's for industrial businesses looking to locate in Oregon revealed that an average of 10 acres was the minimum site size required.
Newberg's study of industrial sites in nearby communities found a variety of industrial site sizes within those areas. Note that many of the sites studied have individual sites larger and smaller than the typical sizes noted.

Figure 12- 4: Typical Site Sizes in Nearby Industrial Areas



Source: *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses*, Newberg Planning Division (2013)

Newberg's industrial site size characteristic is in accordance with the typical site size requirements and needs seen locally and regionally today. The needs for sites in each size category are detailed Table 12- 20 on page 47. This breaks outs site needs in four general categories. In total, the inventory must include a sufficient number of sites within each site category to meet identified needs (<2 buildable acres, 2 to 10 buildable acres, 10 to 30 buildable acres, and 30 to 50 buildable acres). If there are insufficient sites within any particular category,

[46] Letter from Michael Williams, Industrial Lands Specialist, Business Oregon (July 2010); Newberg Industrial Users Survey (November 2010)

then Newberg will need to seek sites with sufficient land to meet needs in that category.

Industrial District Size and Industrial/Commercial Proximity

A common form of industrial development is to cluster industrial uses in industrial districts or industrial parks. There are many reasons for this, including:

- The district can have adequately sized power and other utilities to serve industrial uses.
- The district can have adequately sized roads for heavy truck traffic.
- There are fewer issues of compatibility when industrial uses are located adjacent to each other rather than next to residential type uses.
- There are economies of scale when many industrial uses can be served by the same suppliers or delivery systems.
- Industrial uses can create synergy with each other. For example, one industry's by-products can be used by another industry as resources.
- Businesses can share employee amenities such as parks, fitness centers, lunch areas, and day care facilities.
- Larger districts provide opportunities for business expansion onto adjoining or nearby sites.

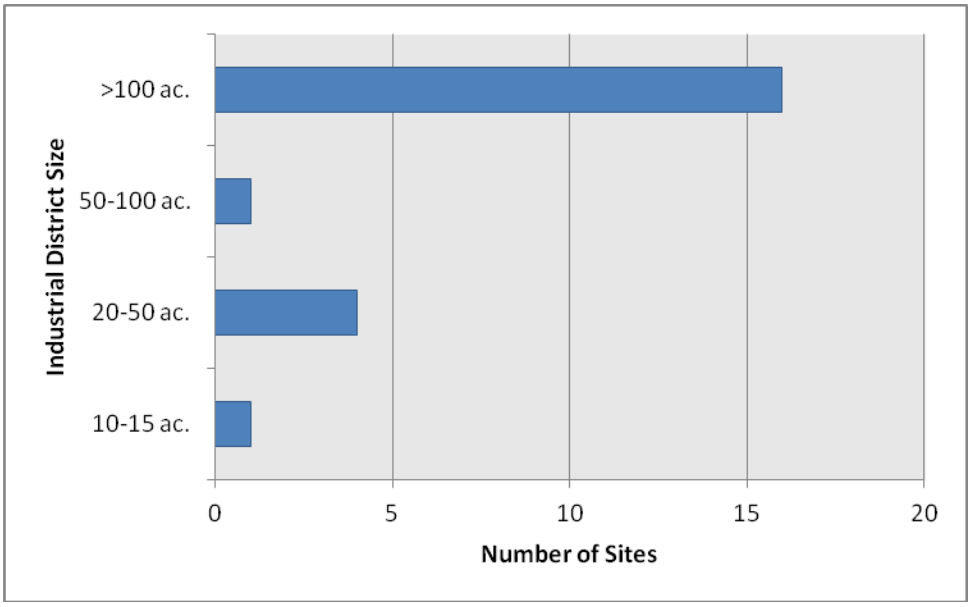
Having clustered uses is a common theme throughout industrial development in most cities. The very definition of "industrial use" in OAR 660-009-005(3) says, "Industrial uses . . . may cluster in traditional or new industrial areas where they are segregated from other non-industrial activities." The Cottage Grove EOA states that "firms with similar business activities can realize operational savings when they congregate in a single location or region. Clustering can reduce costs by creating economies of scale for suppliers. Firms tend to locate in areas where there is already a presence of other firms engaged in similar or related activities."[47] In addition, the report *Methods for Evaluating Commercial and Industrial Land Sufficiency: A Recommendation for Oregon Communities* (Otak, Inc & ECONorthwest, 2002) states that "Economists have shown that firms locate in a city because of the presence of factors other than direct factors of production. These indirect factors include agglomerative economies, also known industry clusters, location amenities, and innovative capacity."[48] Clustering, or industrial districts, are meaningful to the operation of industry because of the shared economies of scale and synergy it can create.

Clustering industrial uses is also related to the other site suitability characteristics of topography, proximity to transportation and services, and compatibility with residential uses. An obvious choice for an industrial park or district to develop is in an area large enough for industrial development that meets the other three site suitability characteristics. Different sources on industrial site analysis state that around 50 – 100 acres is the average site size for an industrial district.[49]

[47] Cottage Grove EOA, ECONorthwest (2009).
[48] Otak, Incorporated and ECONorthwest, *Methods for Evaluating Commercial and Industrial Land Sufficiency: A Recommendation for Oregon Communities* prepared for The Advisory Committee on Commercial and Industrial Development, December 2002.
[49] Deloitte & Touche, *Industrial/Business Park Standards: Rural Regions* (October 2001); Alabama Cooperative Extension System, *Creating Industrial Sites* (January 1999).

Newberg's review of local and regional industrial areas showed that about two-thirds of existing industrial districts where Newberg's targeted industries have located recently in our area are over 100 acres in size. Nearly all (92%) of the studied areas are over 20 acres in size.

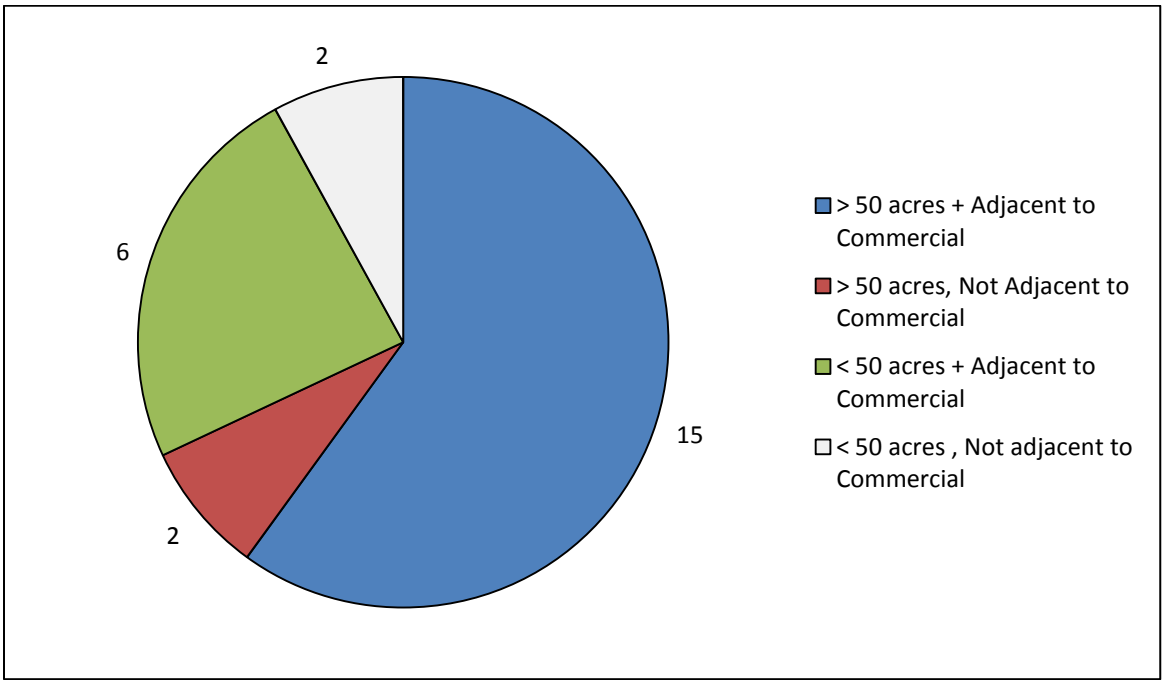
Figure 12- 5: Typical Industrial District Size of Nearby Communities



Source: *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses*, Newberg Planning Division (2013)

In addition, the types of industries Newberg is targeting have typically located in either large industrial districts or districts near commercial areas. Of the 25 industrial districts studied, 23 or 92%, were adjacent to a large commercial area, were over 50 acres in size, or were both. Small, isolated industrial districts are notably atypical. See Figure 12- 6. Adjacency to a commercial area can provide some of the same benefits as adjacency to industrial areas. For example, street and utility sizes are similar for commercial and some industrial users. Compatibility issues are not as great between commercial and industrial uses. Delivery services can serve both commercial and industrial businesses for many supplies such as office equipment. Employee amenities such as a fitness center, daycare, or coffee shop, can be provided in the commercial area. While not all proximity needs, such as byproduct sharing or expansion needs, can be met simply by being adjacent to commercial uses, many can.

Figure 12- 6: Commercial/Industrial Proximity and District Size



Source: *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses*, Newberg Planning Division (2013)

Therefore, Newberg has established the following site size suitability characteristic for industrial uses:

Site contains a parcel or group of parcels in close proximity with buildable land that contains at least 20 buildable or industrially developed acres (or smaller if adjacent to existing industrial district).

Newberg also has established the following proximity criterion:

Adjoin an existing industrial or commercial area, or an area with sufficient buildable land to allow expansion of the industrial district.

This recognizes that typical targeted industrial uses either locate in areas that already have the benefit of commercial/industrial proximity, or will locate in areas that can grow to provide those same benefits. If an area is not adjacent to an existing commercial or industrial area, the area will need to allow initial creation or future expansion of an industrial district to be at least 50 acres and preferably larger.

The importance of this characteristic to each targeted industrial use is shown in Table 12- 24 on page 0.

Topography

Topography is a critical factor in industry site location. Industrial uses require level sites for a

number of reasons, including:

- Many industries move supplies, equipment, and product from one part of the site to another. This movement becomes very difficult if the grade changes requiring steps or ramps within the site.
- Trucks, forklifts, and other equipment are limited as to the grade at which they can safety operate.
- Most buildings and structures require level floors. If a site is sloped, the site usually needs graded to be level. Grading sites can weaken the structural stability of the soil, or require retaining walls. Many industrial uses include heavy equipment which demands stable footings. Grading and retaining walls can weaken this stability.

According to Bill Grunkmeyer, author of the Ohio State University Extension fact sheet on the characteristics of an industrial site:

"Topography of the site is also an important factor. Companies usually seek fairly level sites with adequate drainage to avoid standing water. Depending on a firm's desire for aesthetic considerations, a gently sloping site may be attractive. Once again, in considering topography a firm is trying to decrease the cost of site work. If a community is located in a hilly region it is still possible to find an acceptable site by laying out a plan that locates the firm on a plateau or terraced section of a hill. This could be very attractive, particularly if the community takes into consideration easy access and high visibility potentials."[50]

In the book *Planning the Built Environment*, author Larz T. Anderson discusses the effect of slope on the feasibility of industrial land uses. The following is a summary of his findings:

- *1 to 3% slope: May accommodate moderate and small plans without extensive linear production; trucking terminals; and warehouses.*
- *3 to 5% slope: Intensive, small-scale industry with minimum trucking needs (truck access is difficult and perhaps impossible with icing).*
- *5 to 10% slope: Intensive, small-scale industry on slopes up to 7% (truck access becomes difficult and expensive when the slope exceeds 7%).*
- *10 to 15% slope: This slope range is economically impractical for industrial development.*[51]

The Department of Land Conservation *Goal 9 Guidebook* includes a definition of constrained land that says that over 10% slope for industrial use is a physical constraint.[52]

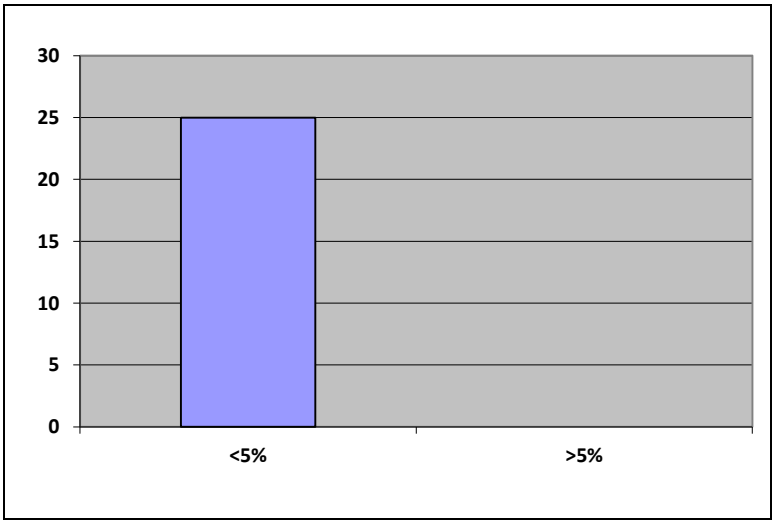
One Newberg business stated that they would need a level site with stable soil to facilitate a level concrete floor around 30,000 square feet in size. Two other Newberg examples illustrate the necessity of level sites: Action Equipment's new building, and A-dec's expansion on their existing site. Action Equipment recently located a new facility on level industrial land on Hayes

[50] Bill Grunkemeyer, *Characteristics of an Industrial Site*, Ohio State University Extension Fact Sheet. http://ohioline.osu.edu/cd-fact/1525.html.
[51] Larz T. Anderson, *Planning the Built Environment*, APA Planners Press (2000).
[52] Department of Land Conservation Development, *Goal 9 Guidebook*, Appendix A.

Street. In their site search, they specified a need for a level site. The company manufactures large, long conveyor equipment. The building design had to focus on being large and level in order to accommodate set up, processing, and moving of the equipment, which in some cases is over a hundred feet long. In the second example, even though you would think the A-dec site is level just from looking at it, the topography caused problems when they needed to expand. A-dec had two buildings close together, and had to build a complex ramp to run forklifts from one building to another in order to make the operation work.

All of the 25 local and regional industrial districts studied were predominantly less than 5% slope, and all had our targeted industries represented in them.[53]

Figure 12- 7: Predominant Slope of Industrial Districts



Source: *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses*, Newberg Planning Division (2013)

Therefore, a slope of less than 5% is typical for industrial uses, and slopes over 10% are not considered buildable industrial land. In addition, development is not permitted in stream corridors or wetland areas, so these areas also must be excluded. Note that stream corridors or wetland areas may be included on the periphery of sites to provide buffer or open space amenities for the industrial sites.

Thus, Newberg has established the following topography

Exclude:

- *Slopes of 10% or greater,*
- *Sites that are not predominantly less than 5% slope within buildable areas, and*
- *Areas within stream corridors and wetlands.*

The importance of the slope characteristic to each targeted industrial use is shown in Table 12-

[53] Newberg Planning Division, *Typical Characteristics of Industrial Sites for Newberg Targeted Industries,* (November 2010)

24 on page 0.

Proximity to UGB

Newberg's targeted industries need to be within the urban growth boundary. With some exceptions, state land use laws restrict Newberg's targeted industrial uses from locating outside the UGB. Extensions of public facilities to serve uses outside UGBs are also severely limited. Thus, Newberg's industrial land needs only can be met by land that is either already within the UGB, or on land that can be added to the UGB.

ORS 197.298 essentially limits UGB expansions to lands adjacent to the UGB. OAR 660-024-660-024-0060 (4) states, "In determining alternative land for evaluation under ORS 197.298, "land adjacent to the UGB" is not limited to those lots or parcels that abut the UGB, but also includes land in the vicinity of the UGB that has a reasonable potential to satisfy the identified need deficiency."

Thus, a required industrial characteristic is that the site must be:

Within, or adjacent to existing UGB, or as part of group of parcels in the vicinity of the UGB that immediately could be added to the UGB.

In determining whether a site could be added to the UGB, the analysis should consider whether intervening land also could be added to meet identified needs for industrial or some other use. This needs to consider the priority of that land for inclusion in the UGB, and the reasonableness of adding that land considering other factors, such as the ability to provide infrastructure to the area.

Proximity to Transportation and Services

All of the industrial location site literature references how important having good highway access is for industry. Shipping is an integral part of most industrial businesses. Most shipping is done by the highway system, although some is still done by rail and port. As stated in the Business and Industrial Park Development Handbook,

"One of the most important location considerations for a business park or a large, single-industrial site is the array of transportation services available at the site. Proximity to airports increasingly is sought by businesses, and although rail is no longer considered essential, some manufacturing and distribution tenants still require it. The major difference between earlier planned industrial districts and parks, and modern business parks has been the new freedom in choice of locations made possible by the "clean" uses now found in parks and by improved roads, especially the freeway network and the large trucking industry."[54]

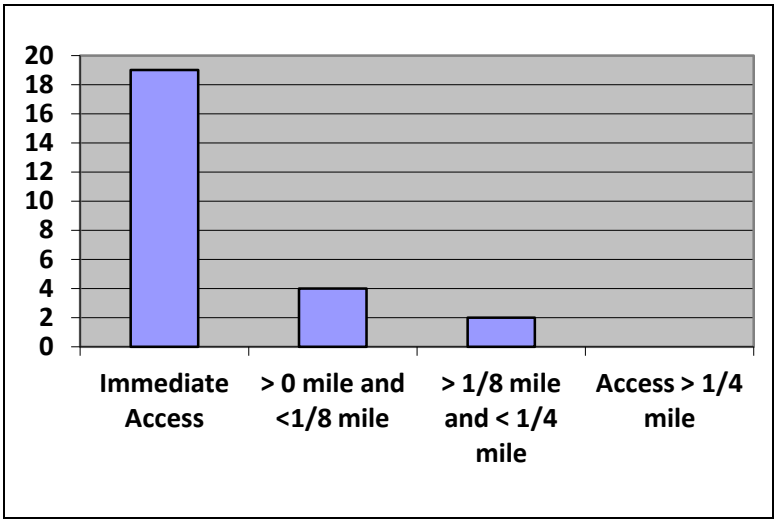
According to the City of Hillsboro Economic Opportunities Analysis Industrial Development Pattern Type Matrix, for medium industrial users (25k-100k sq ft built space; and/or 4 to 25 acres of outdoor inventory/production areas):

[54] ULI 1998, p. 88

"Transportation system that provides convenient connections to state highways is very important…Rail access is important to many uses and can be essential for some uses…Convenient access to well trained and qualified workforce is essential and industry clustering for access to skilled labor force is common…"

Of the 25 local and regional industrial sites studied, 19 had immediate access to a major road (arterial or state highway). Only two districts had access to a major road that was further than 1/8 mile, and both of those were within ¼ mile of a major road. No districts had access more than ¼ mile away.[55]

Figure 12- 8: Distance from Studied Industrial District to Arterial or State Highway



Source: *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses*, Newberg Planning Division (2013)

It is typical for industries to need to be as close as possible to a major road for easy access; every site in the nearby communities studied was within ¼ mile. Adequate access has a meaningful connection to industry because most businesses rely on being able to receive supplies and ship goods readily and easily. It is harmful to the business, to surrounding uses, and to the safety of pedestrian, bicycle, and neighborhood traffic to have large trucks regularly traveling through neighborhoods that are not built to handle large truck traffic. Therefore, Newberg has established the following industrial site suitability characteristic:

Sites that have suitable truck access to a state highway or arterial street within 1/4 mile.

The importance of this characteristic to each targeted industrial use is shown in Table 12- 24 on page 0.

[55] *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses*, Newberg Planning Division (2011)

Compatibility with Residential Uses

Cities have to take into account location and compatibility when planning for economic development. At the heart of municipal zoning is an identified need to separate residential and industrial uses. The landmark case of Euclid v. Ambler declared that government has a valid interest in maintaining neighborhood character and regulating where certain land uses should occur.[56] The Oregon Administrative Rule that governs economic development includes a provision that guides cities to manage compatibility of uses:

OAR 660-0090-0025 (6) *Compatibility. Cities and counties are strongly encouraged to manage encroachment and intrusion of uses incompatible with industrial and other employment uses. Strategies for managing encroachment and intrusion of incompatible uses include, but are not limited to, transition areas around uses having negative impacts on surrounding areas, design criteria, district designation, and limiting non-essential uses within districts.*

Most industrial businesses want to be good neighbors and to be able to fully operate their businesses without constraints imposed by being forced into direct contact with residential neighbors. Other cities have determined that industrial uses need to have other compatible uses nearby as well. An explanation for land use buffers is found in several Economic Opportunities Analysis reports done by ECONorthwest for various cities:

"According to the public officials and developers/brokers ECO interviewed, industrial areas have operational characteristics that do not blend as well with residential land uses as they do with office and mixed-use areas. Generally, as the function of industrial use intensifies (e.g., heavy manufacturing) so too does the importance of buffering to mitigate impacts of noise, odors, traffic, and 24-hour 7-day week operations. Adequate buffers may consist of vegetation, landscaped swales, roadways, and public use parks/recreation areas. Depending upon the industrial use and site topography, site buffers range from approximately 50 to 100 feet. Selected commercial office, retail, lodging and mixed-use (e.g. apartments or office over retail) activities are becoming acceptable adjacent uses to light industrial areas."[57]

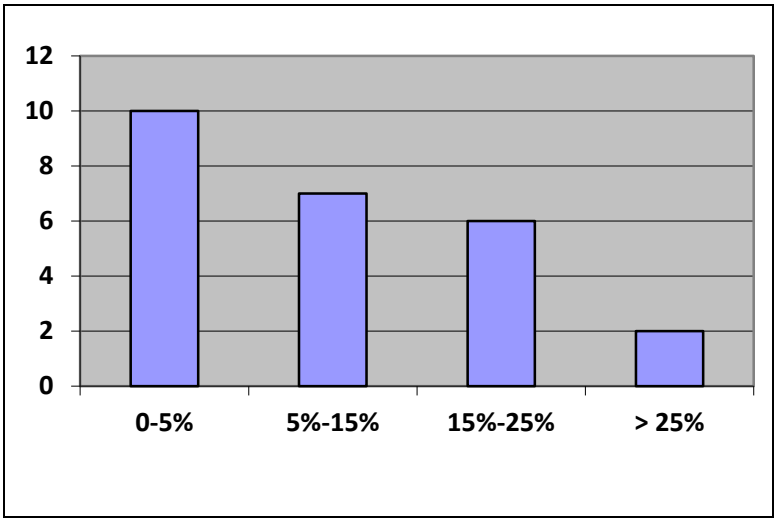
Newberg's existing industrial users report that it is not prudent to locate industrial development next to residential neighborhoods. One prominent industrial business is currently adjacent to residential development on one side, and says that they have issues with large truck traffic getting mixed in with neighborhood pedestrian, bicycle and vehicle traffic, causing visibility and safety problems. In addition, site noise is undesirable to residential neighbors, whether from the banging and grinding that accompanies manufacturing uses or from onsite loudspeakers used for communication throughout the site. Many industrial uses also have long hours, sometimes even 24 hours a day, compounding noise issues. Other things that can be considered nuisances to residential neighbors are outdoor storage of materials, dust, and vibration; all commonplace things in industrial developments.

In our review of local and regional industrial parks, two-thirds of the areas had less than 15% of their boundary with residential areas. All except two (92%) had less than 25% of their boundary

[56] http://en.wikipedia.org/wiki/Village_of_Euclid_v._Ambler_Realty_Co.
[57] Economic Opportunities Analysis, Cities of McMinnville (2001) and Springfield (2009), OR

with residential areas.[58] It follows that it would be feasible to create a large buffer from residential areas on one side of an industrial development, but it would be very difficult to do that on every side without wasting a large amount of usable space. Therefore, being adjacent to a residential neighborhood on 25% of an industrial property's boundary would be feasible, but more than that would seriously hamper the industrial use.

Figure 12- 9: Industrial District Boundaries with Residential Areas



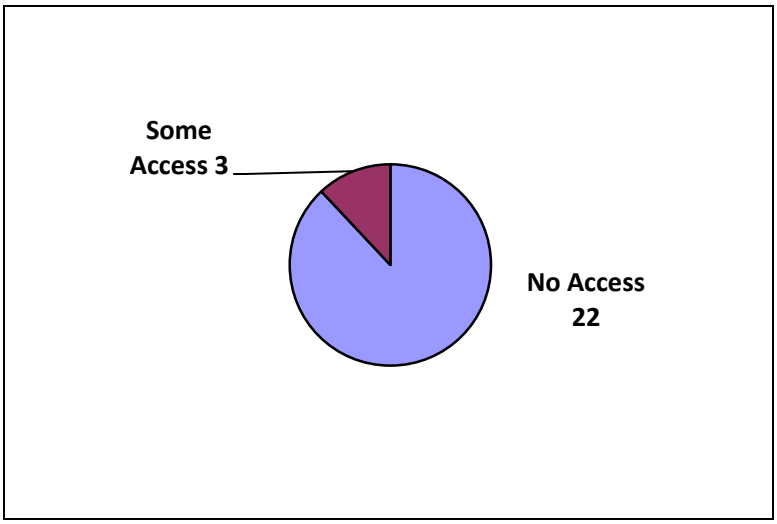
Source: *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses,* Newberg Planning Division (2013)

Having to route truck traffic through or adjacent to residential neighborhoods also can severely hamper an industrial business's operation. As noted in the previous section, residential streets are not built to accommodate truck traffic. Residents in those areas can be bothered by the vibration, noise, and odor of the truck traffic, and demand that truck traffic be rerouted or limited to certain volumes or hours.

In our review of nearby industrial areas, 88% did not have access through or adjacent to residential areas. Thus, typical industries do not access through residential areas.

[58] *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses,* Newberg Planning Division (2011)

Figure 12- 10: Industrial Districts with Access Through Residential Area



Source: *Typical Characteristics of Industrial Sites for Newberg Targeted Industrial Uses*, Newberg Planning Division (2013)

In accordance with these standards, Newberg has established the following criteria[59]:

Exclude sites that:

- *Abut residential neighborhoods on more than 25% of the site perimeter unless effective topographical buffers are present, such as a stream corridor, arterial street, state highway, rail line, or park.*
- *Require truck traffic to travel through or adjacent to a residential neighborhood to reach an arterial street or state highway.*

The importance of this characteristic to each targeted industrial use is shown in Table 12- 24 on page 0.

Importance of Site Characteristics to Different Types of Targeted Industrial Uses

As a final step, this study looked at each of the types of targeted industries that are likely to locate in new industrial areas and determined which of the industrial site characteristic had meaningful relationships to that particular type of industry. The results are shown in Table 12-24 on page 0.

As can be seen in that table, all of the site characteristics are important and meaningful to Newberg targeted industrial uses. In some cases, the a part of the targeted industry may be able to locate in other areas, such as office or commercial zones, such as engineering services. Nevertheless, there is some part of that industry that would locate in industrial zones, such as

[59] For these purposes, "residential neighborhood" includes land that is within urban residential comprehensive plan or zoning district, and rural residential zoned land with a 2.5 acre or smaller minimum lot size or developed predominantly with residential lots of 2.5 acres or less.

engineering services related to manufacturing or construction uses, and where it is necessary for that use to locate in an industrial area that has the industrial site characteristics.

Also note that there are other uses that typically locate in industrial land, but that are not on the Newberg targeted industry list. These are mostly uses in the "other services" category such as auto repair, retail repair and maintenance services, and self-storage facilities. To the extent that new employment is expected in these sectors, they are expected to locate in existing industrial areas and not in new industrial areas that may need the site characteristics listed.

Table 12- 24: Importance of Site Characteristics to Specific Targeted Industrial Uses

Targeted business types	Types to locate in new industrial districts; examples	Is industrial district size and industrial/commercial proximity important?	Are level sites important?	Is close and suitable truck access important?	Is residential compatibility Important?
High Tech Manufacturing Business Cluster					
Semiconductors/ silicon, imaging & display technology	Most. Examples: Cascade Laser (Newberg), Schimadzu (Canby); MEC Companies (Canby); Westak (Forest Grove), Wave Form Systems (Tualatin)	**Yes.** Typical uses have frequent truck traffic that requires adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. Typical uses have electrical requirements that only are met in industrial or industrial/commercial areas. Uses have employee bases that need close amenities provided in the district or nearby commercial areas. This dynamic industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Uses frequently include small manufacturers producing supplies or parts for other manufacturers, so close proximity is very beneficial. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Typical uses have truck traffic that requires level sites. Typical uses use forklifts or similar machinery to move materials on site, requiring level sites. Typical businesses use heavy production equipment that needs level, stable platforms.	**Yes.** Typical uses have frequent truck traffic to receive supplies and deliver product. Many serve other industries, so close access is important.	**Yes.** Typical uses have frequent truck traffic and on-site heavy material movement by forklift, causing noise and vibration. Many have evening, night and weekend shifts. Most use hazardous materials.
Nano & micro technology, cyber-security, health/medical information technology					
Biotech/bioscience (medical devices, bioinfomatics, pharmaceuticals, genomics, anti-virals)					
General Manufacturing Business Cluster					
Dental equipment	Most. Examples: A-dec (Newberg), Beaverstate Dental (Newberg), DCI (Newberg)	**Yes.** Typical uses have frequent truck traffic that requires adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. Typical uses have electrical requirements that only are met in industrial or industrial/commercial areas. Uses have employee bases that need close amenities provided in the district or nearby commercial areas. This dynamic industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Uses frequently include small manufacturers producing supplies or parts for other manufacturers, so close proximity is very beneficial. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Typical uses have truck traffic that requires level sites. Typical uses use forklifts or similar machinery to move materials on site, requiring level sites. Typical businesses use heavy production equipment that needs level, stable platforms.	**Yes.** Typical uses have frequent truck traffic to receive supplies and deliver product. Many serve other industries, so close access is important.	**Yes**. Typical uses have frequent truck traffic and on-site heavy material movement by forklift, causing noise and vibration. Many have evening, night and weekend shifts. Most use hazardous materials.

Targeted business types	Types to locate in new industrial districts; examples	Is industrial district size and industrial/commercial proximity important?	Are level sites important?	Is close and suitable truck access important?	Is residential compatibility Important?
Metals, machinery, transportation equipment	Most. Examples: ARE (Newberg), Climax (Newberg), PPM (Newberg), Action Equipment (Newberg), Allied Systems (Sherwood)	**Yes.** Typical uses have frequent truck traffic that requires adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. Typical uses have electrical requirements that only are met in industrial or industrial/commercial areas. Uses have employee bases that need close amenities provided in the district or nearby commercial areas. This industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Uses frequently include small manufacturers producing supplies or parts for other manufacturers, so close proximity is very beneficial. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Typical uses have truck traffic that requires level sites. Typical uses use forklifts or similar machinery to move materials on site, requiring level sites. Typical businesses use heavy production equipment that needs level, stable platforms.	**Yes.** Typical uses have frequent truck traffic to receive supplies and deliver product. Many serve other industries, so close access is important.	**Yes.** Typical uses have frequent truck traffic and on-site material movement by forklift, causing noise and vibration. Many have evening, night and weekend shifts. Most use production equipment that generates noise, vibration, and some smells. Many have outdoor storage of materials and waste. Most use hazardous materials.
Lumber and wood products (value added)	Most. Examples: Beaudry Cabinets (Newberg), Hardwood Industries (Sherwood), Universal Forest Products (Woodburn)	**Yes.** Typical uses have frequent truck traffic that requires adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. Typical uses have electrical requirements that only are met in industrial or industrial/commercial areas. Uses have employee bases that need close amenities provided in the district or nearby commercial areas. This industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Uses may include small manufacturers producing supplies or parts for other manufacturers, so close proximity is very beneficial. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Typical uses have truck traffic that requires level sites. Typical uses use forklifts or similar machinery to move materials on site, requiring level sites. Typical businesses use heavy production equipment that needs level, stable platforms.	**Yes.** Typical uses have frequent truck traffic to receive supplies and deliver product. Many serve other industries, so close access is important.	**Yes.** Typical uses have frequent truck traffic and on-site material movement by forklift, causing noise and vibration. Many have evening, night and weekend shifts. Most use production equipment that generates noise, vibration, and some smells. Many have outdoor storage of materials and waste. Most use hazardous materials.

Targeted business types	Types to locate in new industrial districts; examples	Is industrial district size and industrial/commercial proximity important?	Are level sites important?	Is close and suitable truck access important?	Is residential compatibility Important?
Sustainable industries (renewable energy, resource efficiency technologies, sustainable building materials, green chemistry)	Most. Examples: Harris Thermal (Newberg), Johnson Controls (Canby)	**Yes.** Typical uses have frequent truck traffic that requires adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. Typical uses have electrical requirements that only are met in industrial or industrial/commercial areas. Uses have employee bases that need close amenities provided in the district or nearby commercial areas. This dynamic industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Uses frequently include small manufacturers producing supplies or parts for other manufacturers, so close proximity is very beneficial. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Typical uses have truck traffic that requires level sites. Typical uses use forklifts or similar machinery to move materials on site, requiring level sites. Typical businesses use heavy production equipment that needs level, stable platforms.	**Yes.** Typical uses have frequent truck traffic to receive supplies and deliver product. Many serve other industries, so close access is important.	**Yes.** Typical uses have frequent truck traffic and on-site heavy material movement by forklift, causing noise and vibration. Many have evening, night and weekend shifts. Most use production equipment that generates noise, vibration, and some smells. Some have outdoor storage of materials and waste. Most use hazardous materials.
Distribution & logistics	Most. Examples: Cascade-Columbia (Sherwood), Owens & Minor (Wilsonville), NTP Distribution (Wilsonville), Wesco Distribution (Wilsonville)	**Yes.** Typical uses have very frequent truck traffic that requires adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. Typical uses have electrical requirements that only are met in industrial or industrial/commercial areas. Uses have employee bases that need close amenities provided in the district or nearby commercial areas. This industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Uses frequently storage or warehouse space for other industries, so close proximity is very beneficial. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Typical uses have very frequent truck traffic that requires very level sites. Typical uses use forklifts or similar machinery to move materials on site, requiring very level sites.	**Yes.** Typical uses have very frequent truck traffic. Many serve other industries, so close access is important.	Yes. Uses have frequent truck traffic and on-site heavy material movement by forklift, causing noise and vibration. Many have evening, night and weekend shifts. Some have outdoor storage of materials and waste. Many store and transport hazardous materials.

Targeted business types	Types to locate in new industrial districts; examples	Is industrial district size and industrial/commercial proximity important?	Are level sites important?	Is close and suitable truck access important?	Is residential compatibility Important?
Sports apparel/ recreation-related products	Most. Examples: HGI (Newberg), Nike (Beaverton), Dakine (Hood River)	**Yes.** Typical uses have frequent truck traffic that requires adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. Typical uses have electrical requirements that only are met in industrial or industrial/commercial areas. Uses have employee bases that need close amenities provided in the district or nearby commercial areas. This dynamic industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Uses frequently include small manufacturers producing supplies or parts for other manufacturers, so close proximity is very beneficial. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Typical uses have truck traffic that requires level sites. Typical uses use forklifts or similar machinery to move materials on site, requiring level sites. Typical businesses use heavy production equipment that needs level, stable platforms.	**Yes.** Typical uses have frequent truck traffic to receive supplies and deliver product. Many serve other industries, so close access is important.	**Yes.** Most uses have truck traffic and on-site material movement by forklift, causing noise and vibration. Some have evening, night and weekend shifts. Most use hazardous materials.
Aviation related business cluster					
Specialty aircraft equipment, aircraft repair, machine shops, small entrepreneur business	Yes, near Airpark. Examples: Precision Helicopter (Newberg), Van's Aircraft (Aurora)	**Yes.** In particular, this industry benefits from location in an industrial park near the Sportsmans Airpark. The uses benefit from the synergy created from having aircraft, parts manufacturers, and similar businesses all in close proximity. Typical uses have truck traffic that requires adequately sized roads provided in industrial areas. Typical uses have electrical requirements that only are met in industrial or industrial/commercial areas. Uses have employee bases that need close amenities provided in the district. This industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Those servicing aircraft must be very level to allow movement of the craft. Typical uses have truck traffic that requires level sites. Many have forklifts or similar machinery to move materials on site, requiring level sites.	**Yes.** Typical uses have truck traffic.	**Yes.** Nearly all use production equipment that generates noise, vibration, and some smells. Typical uses have truck traffic and on-site heavy material movement by forklift, causing noise and vibration. Many have evening, night and weekend shifts. Some have outdoor storage of materials and waste. Most use hazardous materials.
Agriculture business cluster					

Targeted business types	Types to locate in new industrial districts; examples	Is industrial district size and industrial/commercial proximity important?	Are level sites important?	Is close and suitable truck access important?	Is residential compatibility Important?
Wineries Specialty foods and food processing	Most larger facilities. Small scale and boutique wineries and food processors could locate in other areas. Examples: NW Winery (Dundee); Several on Alpine Ave. (McMinnville); Berry Noire (Newberg), Lieb Foods (Forest Grove)	**Yes.** Typical uses have frequent truck traffic that requires adequately sized roads provided in industrial areas. Larger winery uses generate truck traffic, particularly during harvest time, though truck traffic to storage areas can be year round. These require adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. Typical uses have electrical, sewer, and water requirements that only are met in industrial or industrial/commercial areas. This industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Uses frequently are connected to storage areas or other producers, so close proximity is very beneficial. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Typical uses have truck traffic that requires level sites. Typical uses use forklifts or similar machinery to move materials on site, requiring level sites.	**Yes.** Typical uses have frequent truck traffic receiving produce and delivering product. Winery uses generate truck traffic, particularly during harvest time, though truck traffic to storage areas can be year round.	**Yes.** These uses typically generate frequent truck traffic. Winery uses generate truck traffic, particularly during harvest time, though truck traffic to storage areas can be year round. They use production equipment that generates noise, vibration, and smell. Some have outdoor storage of material and waste products. Waste products need careful management to avoid impacts to neighbors. Most use hazardous materials.
Nursery and agricultural products (value added)	Most. Examples: Kendal Floral (Canby), T&R Company (Woodburn)	**Yes.** Typical uses have frequent truck traffic that requires adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. Some uses have power or water requirements that only are met in industrial or industrial/commercial areas. Uses have employee bases that need close amenities provided in the district or nearby commercial areas. This industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Uses frequently are connected to storage areas or other producers, so close proximity is very beneficial. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes.** Typical uses have truck traffic that requires level sites. Typical uses use forklifts or similar machinery to move materials on site, requiring level sites. Uses have production equipment that needs stable and level platforms.	**Yes.** Typical uses have frequent truck traffic receiving and distributing product.	**Yes.** These uses typically generate frequent truck traffic. Most have outdoor storage of material and waste. Some have waste products that need careful management to avoid impacts to neighbors. Most use hazardous materials.
Services business cluster					

Targeted business types	Types to locate in new industrial districts; examples	Is industrial district size and industrial/commercial proximity important?	Are level sites important?	Is close and suitable truck access important?	Is residential compatibility Important?
Professional services architecture, engineering, legal and financial services, etc.	Most are in office or commercial areas. Architecture, engineering, or similar construction or manufacturing related services may require storage areas, construction equipment yards, equipment or product testing. These would locate in new industrial districts. Examples: Saunders Company (Dundee), Wilson Construction (Canby), AKS Engineering and Forestry (Sherwood), Colamette Const. (Sherwood)	**Yes.** Uses have employee bases that need close amenities provided in the district or nearby commercial areas**.** Some provide services to other industrial businesses, so close proximity is beneficial. Uses benefit from combined delivery services to the district. Those that have truck traffic or that move construction equipment need adequately sized roads provided in industrial areas. Uses benefit from combined delivery services to the district. This industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes** for those that have outdoor storage of construction equipment, construction materials, trucks, construction vehicles, or on-site testing. Those that don't may locate in office or commercial areas. In all cases uses are compatible on level sites.	**Yes** for those that have storage of construction equipment, construction materials, trucks, or construction vehicles. Those that don't may locate in office or commercial areas. Most serve other businesses, so they benefit from close access, even if only for passenger vehicles. In all cases uses are compatible in areas that have close and suitable truck traffic.	**Yes** for those that have outdoor storage of construction equipment, construction materials, trucks, or construction vehicles. Those that don't may locate in office or commercial areas. These may also use hazardous materials. In all cases residential separation and compatibility is desirable.

Targeted business types	Types to locate in new industrial districts; examples	Is industrial district size and industrial/commercial proximity important?	Are level sites important?	Is close and suitable truck access important?	Is residential compatibility Important?
Creative services (advertising, public relations, film and video, web/internet content and design)	Most are in office or commercial areas. Those requiring production equipment, large data centers, production studios, telecommunication equipment or towers need industrial sites. Examples: Allegra (Newberg), Regal Graphics (Sherwood), KLYC (McMinnville)	**Yes.** Those that have truck traffic or that move construction equipment need adequately sized roads provided in industrial areas. Uses have employee bases that need close amenities provided in the district or nearby commercial areas**.** Uses benefit from combined delivery services to the district. This industry benefits from expansion opportunities on adjacent or close sites in the industrial district. Residential compatibility issues are addressed when use is adjacent to industrial or commercial areas.	**Yes** for those using production equipment such as printing presses, those requiring large data centers or telecommunication equipment that requires frequent service, or production studios using sets and equipment. Others may locate in commercial or office areas. In all cases uses are compatible on level sites.	**Yes** for those delivering a physical product, requiring large data centers or telecommunication equipment that requires frequent service, or production studios using sets and equipment. Others may locate in commercial or office areas. Most serve other businesses, so they benefit from close access, even if only for passenger vehicles. In all cases uses are compatible in areas that have close and suitable truck traffic.	**Yes** for those that that have production equipment, large data centers, production studios, telecommunication equipment or towers. Data centers and telecommunication equipment may require frequent service from service vehicles, including large vehicles. Towers and telecommunication equipment can be intrusive to residential neighbors. Production studios may generate noise and light, and have evening, night, and weekend activity. Those that don't may locate in office or commercial areas. Some equipment and materials may be hazardous. In all cases residential separation and compatibility is desirable.

Industrial Land and Sites

The comprehensive plan inventory of buildable industrial land was updated in 2012, consistent with the requirement in OAR 660-009-0015 (3) for an inventory of industrial and other employment land. The term "buildable industrial land" as used in this plan is consistent with the terms defined in OAR 660-009-0005 as "total supply" of "vacant" or "developed" industrial land that is "suitable" and "serviceable."[60] Buildable land:

1) Includes lots that have any "Industrial" comprehensive plan designation. This includes land in the "Employment" Springbrook District, specific plan industrial districts, and land in the MIX comprehensive plan district zoned industrial. It excludes publicly owned properties intended for city facilities such as the wastewater treatment plant expansion, which are counted in the "public/quasi-public" category.
2) Includes lots that are:
   a) Equal to or larger than one half-acre not currently containing permanent buildings or improvements; or
   b) Equal to or larger than five acres where less than one half-acre is occupied by permanent buildings or improvements.
   c) Non-vacant land that is likely to be redeveloped during the planning period. For this inventory, this included (but was not limited to),
      i) Lots equal to or larger than one-half acre, and less than five acres likely to be redeveloped during the planning period.
      ii) The undeveloped portion of a lot equal to or larger than five acres.
   d) Excludes (unsuitable) portions of lots within stream corridors, with slopes over 10 percent, or currently occupied by buildings or industrial uses not likely to be redeveloped during the planning period, or contained within the Newberg-Dundee Bypass right-of-way as shown in the Tier 2 Preferred Alternative selected September 2010.

Table 12 - 1 shows the existing buildable industrial land in the UGB as of 2012[61]. Figure 12-**11** is a map of the buildable industrial land in the UGB in 2012.

[60] This should not be confused with the term "buildable land" in OAR 660-008-0005(2), because that rule specifically applies only to residential land.
[61] The inventory of buildable industrial land did not change from 2010-2012.

Table 12 - 1: Buildable Industrial Land in Newberg UGB (2012)

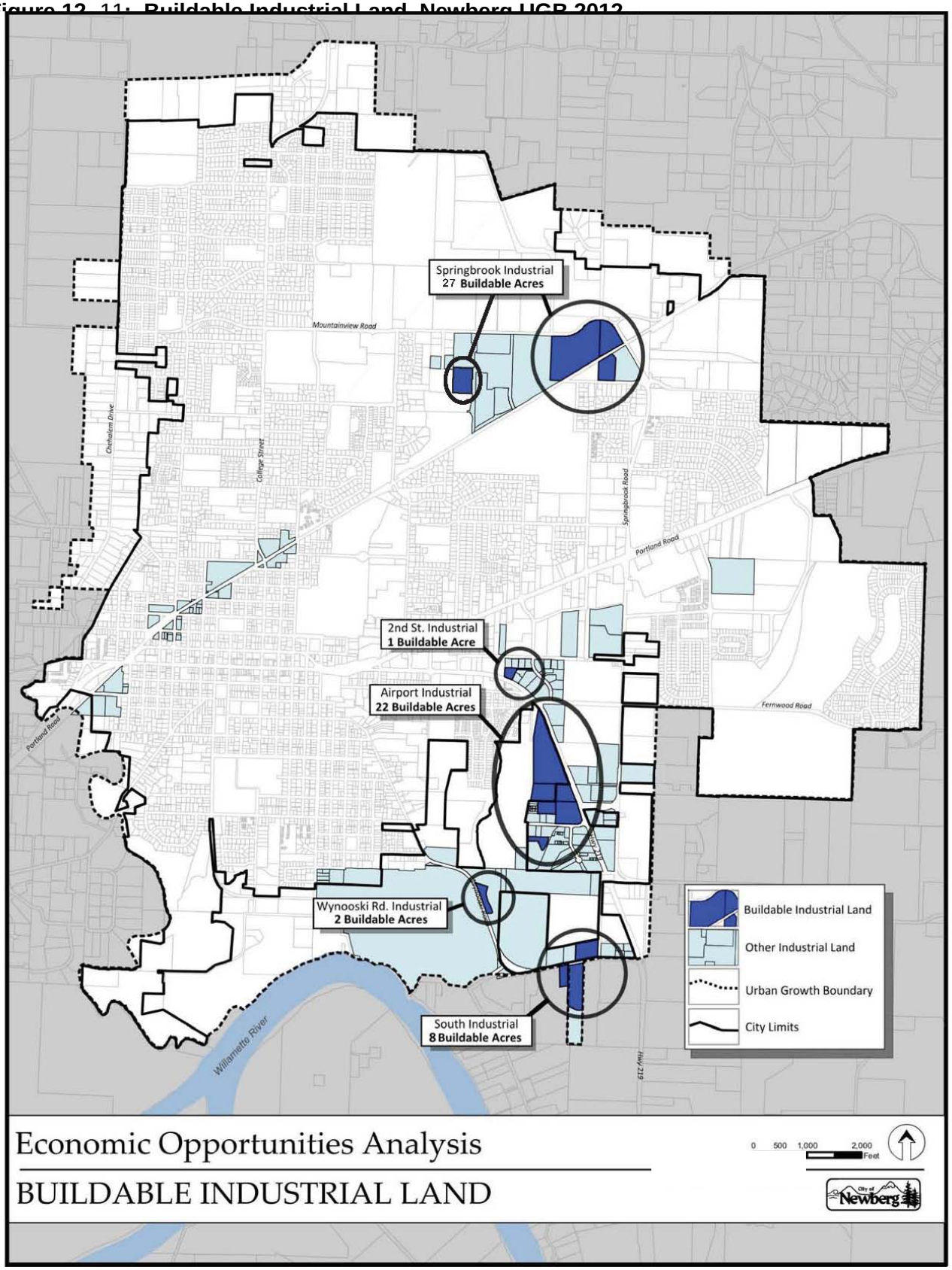
Location	Potential Uses	Buildable Acres	Site Sizes				
			< 2 ac.	2-10 ac.	10-30 ac.	30-50 ac.	Total
Springbrook Employment	Light Manufacturing or Industrial Office	27		1	1		2
Sportsman Airpark[62]	Airport Industrial	22	2	4			6
Wynooski Industrial	Light Industrial	10	1	2			3
Elliot Road Industrial	Light Manufacturing or Industrial Office	1	1				1
Total		60	4	7	1		12

Source: Newberg Planning Division.

The UGB as of 2012 has approximately 56 buildable industrial acres. Newberg's existing industrial land supply is mostly contained within two industrial/employment park areas: approximately 23 buildable acres zoned SD/E (Springbrook District Employment) in the Springbrook area and approximately 22 vacant acres near the Sportsman Airpark. There are also about 11 acres of buildable industrial land scattered throughout the City on individual lots.

[62] The Sportsman Airpark contains one large 55-acre property that contains the existing airport, plus approximately 10.8 acres of buildable industrial land. The approved Sportsman Airpark Master Plan includes a plan for developing the buildable industrial land into an industrial park with aviation related uses. This site was counted in the 2-10 acre category, even though it contains slightly over 10 acres of buildable land, because the approved master plan envisions further division, and the aviation related uses are more likely to be separate smaller firms rather than one large firm.

Figure 12. 11: Buildable Industrial Land, Newberg UGB 2012



2032 Industrial Site Need vs. Supply

As shown in Table 12- 25, Newberg has an unmet need for one 30- to 50-acre site, one 10- to 30-acre site, 51 acres of 2- to 10-acre sites, and 20 acres of sites under 2 acres in size.

Table 12- 25: Industrial Land Supply and Need through 2032

Size Range (Acres)	Number of Sites - 2012 UGB	Buildable Acres - 2012 UGB	2032 Needed Buildable Sites	2032 Needed Gross Buildable Acres	2032 Deficit # of Sites	2032 Deficit Buildable Acres
<2	5	6	23	26	(18)	(20)
2 to 10	7	30	14	81	(7)	(51)
10 to 30	1	24	2	42	(1)	(18)
30 to 50	0	0	1	42	(1)	(42)
Total	**13**	**60**	**40**	**191**	**(27)**	**(131)**

This means that Newberg will need to include an additional 131 buildable industrial acres within the UGB to include:

1) A 30- to 50-acre site;
2) A 10- to 30-acre site; and
3) Industrial park sites totaling approximately 71 buildable acres.

Commercial Land Need

Commercial land need in Newberg is driven by a number of factors. As population grows in Newberg and surrounding areas, so will need for retail and commercial services. Growth in leisure and tourism sectors also will result in commercial land needs beyond local population growth. Commercial land need also is driven by employment growth in other categories, such as professional and business services, information, education and health services.

Commercial Employment Forecast

Table 12-26 forecasts future commercial space utilizing employment for the Newberg urban area through 2032. The table uses the total employment projected in Table 12- 14 on page 30, and the distribution of employment shown in Table 12-15 on page 31.

Note that commercial employment includes most retail, office, medical and commercial services.

Table 12-26: Commercial Land Using Employment Forecast through 2032

Industry	2010 Total Emp.	% Commercial Space Utilizing	2010	2032
Construction	387	10%	39	67
Manufacturing	2,164	5%	108	186
Wholesale Trade	115	5%	6	10
Retail Trade	837	99%	829	1,427
Transportation, Warehousing & Utilities	119	18%	21	37
Information	51	50%	26	44
Financial Activities	253	90%	228	392
Professional & Business Services	370	82%	303	522
Education & Health Services	2,978	40%	1,191	2,051
Leisure & Hospitality	1,033	95%	981	1,689
Other Services	439	40%	176	302
Government	173	35%	61	104
Total	**8,919**	**44.5%**	**3,968**	**6,832**
Cumulative from 2010				2,864

As noted earlier, Newberg is currently underserved in retail services, so Newberg should plan to increase these services to allow local citizens the opportunity to shop in the community. Newberg serves the commercial service needs of surrounding communities and rural areas as well. These areas also are expected to grow substantially over the planning period, adding to retail land needs in Newberg.

Commercial Land and Site Sizes Needed

Commercial land needs through 2032 were calculated generally following the process in the Oregon Department of Land Conservation and Development's Goal 9 Guidebook (2005). Once

employment is forecasted, that guidebook suggests the following steps:

- Identify employment that does not require additional land. This includes development through infill and redevelopment, including occupancy of currently vacant space. The Goal 9 Guidebook gives a rule of thumb for vacancy rate of 10% to 15%. Based on information obtained through discussion with local real estate professionals, the vacancy rate for commercial land in the base year 2010 is estimated to be 15%. In addition, Newberg has set the target of accommodating another 5% of commercial land needs through other infill and redevelopment of commercial land, including in downtown.

- Convert employment growth to land demand. The Goal 9 Guidebook suggests determining commercial land demand by using an employee-per-acre factor. The guidebook suggests using a factor of 10-15 employees for general commercial uses, and 20 employees per acre for offices in non-metropolitan downtowns and suburban settings. The guidebook recommends using local employment information where available. With the current mix of retail, service, and office uses in commercial areas, it is very difficult to separate employee per acre rates for the different categories of commercial uses. Using GIS data on developed commercial and office land in Newberg, the employment data from Table 12- 9 on page 24, and vacancy estimates above, Newberg planning staff estimated the employees per acre in the base year. Based on this review, planning staff determined that an average of about 21 employees for each acre of developed and occupied commercial and office land is a reasonable estimate in Newberg. This is a higher and thus more conservative projection than either the general commercial or the office rates given in the Goal 9 Guidebook. Note that the infill and redevelopment factor has the net effect of increasing employment density over the planning period.

- Adjust net acres to total buildable acres. The Goal 9 Guidebook recommends adjusting the net land needs to gross land need to account for right-of-ways, utilities, and similar uses. The Goal 9 Guidebook suggests a factor from 0% to 25%. Newberg's primary commercial areas will require new roads and similar uses. Newberg planning staff estimates this need will be approximately 15% of the land area. Thus, this analysis considers that 15% of commercial lands will be in right-of-way and similar uses.

- Adjust for future vacancy rate. The Goal 9 Guidebook recommends applying a vacancy rate to built land as well. Even in robust market conditions, some commercial land is vacant just due to tenants moving in and out. A future vacancy rate also allows that not every commercial space is suited to every prospective tenant. The Guidebook suggests applying a factor of between 5% and 15%. This analysis uses the most conservative rate of 5%.

The final adjustment made in the analysis is to consider one acre of developed commercial land that will be displaced by construction of the Newberg-Dundee Bypass.

Table 12-27 uses these factors to calculate commercial land needs through 2032.

Table 12-27: Commercial Land Need through 2032

Projected New Commercial Employment	**2,864**
Commercial employment that does not require additional land	
Base year developed commercial land (developed acres)	218
Base year vacancy rate	15%
Other Infill/Redevelopment	5%
Commercial Employment to be accommodated on existing developed commercial land (employees)	916
Convert employment growth to land demand	
Employment on new land (employees)	1,948
Estimated employees per net buildable acre	21
Net Buildable Acres Needed	93
Adjustments to find total gross buildable acres needed	
Right-of-way, utilities, etc.	15%
Future vacancy rate	5%
Displaced by bypass (acres)	1
Total gross buildable acres needed	**127**

In 2004-2005, Newberg prepared the *Report to Newberg City Council: Recommendations for Newberg's Future*, which documented the development form necessary to accommodate identified commercial land needs. Most of Newberg's commercial growth is expected to occur within existing commercial areas. Newberg has many commercial opportunities in its downtown core. The Newberg Downtown Coalition is actively working on projects to revitalize the downtown commercial core. There is currently approximately one buildable acre in the downtown core; however, it can be assumed that redevelopment, infill, and intensification of uses in the downtown core and other commercial areas will contribute 5% of buildable land supply through 2032 as noted in Table 12-27.

Newberg also will need land dedicated to general retail uses outside of the downtown core, in the form of both smaller neighborhood commercial centers and larger community shopping centers. In order to provide adequate shopping opportunities to Newberg residents, it will be important to ensure there is an adequate supply of retail commercial sites with the appropriate site characteristics in terms of size, access, and location throughout the community. In general, shopping centers require adequately sized areas of land (3 acres minimum for neighborhood commercial sites, and 10 acres minimum for community commercial sites), relatively flat sites with less than 15% slope, and sites with adequate access to collector and/or arterial streets. The smaller neighborhood commercial centers should be scattered throughout the community to provide goods and services near where people live and to reduce the need to drive into the central area for basic needs. Through 2032, Newberg will need one to two additional community commercial centers (10-15 acres each) and two to three smaller neighborhood centers (3-5 acres) to meet the retail commercial land need. Additional commercial acreage is necessary to

accommodate the office, medical services, commercial services, and other miscellaneous commercial activities projected through 2032 independent of the retail commercial uses.

Commercial Site Suitability Requirements

Cities are required by OAR 660 Division 9 to identify required site types to accommodate expected employment growth based on the site characteristics typical of expected uses. Site characteristics are attributes of a site such as shape, topography, visibility, compatibility, infrastructure, proximity to facilities and transportation infrastructure. Many common elements of site requirements can be found in the many Economic Opportunities Analysis reports reviewed from around the state. ECONorthwest completed many of the EOAs, and concludes in these plans that "previous research conducted by ECO has found that while there are always specific criteria for individual firms, many firms share common site criteria. In general, all firms need sites that are relatively flat, free of natural or regulatory constraints, with minimal residential conflicts, and located with good access to transportation, public facilities and services."[63]

Commercial uses fall under the "other employment use" definition in OAR 660 Division 9:

(6) "Other Employment Use" means all non-industrial employment activities including the widest range of retail, wholesale, service, non-profit, business headquarters, administrative and governmental employment activities that are accommodated in retail, office and flexible building types. Other employment uses also include employment activities of an entity or organization that serves the medical, educational, social service, recreation and security needs of the community typically in large buildings or multi-building campuses.

Similar to industrial uses, commercial uses can run the gamut of actual on-the-ground development. Therefore, it's important that commercial site suitability criteria be typical enough to accommodate the range of expected uses in Newberg. Table 12-28 below shows Newberg's commercial site requirements and the rest of this section discusses the requirements.

[63] Common wording found in the EOA reports done by ECONorthwest for Cottage Grove (2009), Springfield (2009), Ashland (2007), and McMinnville (2001).

Table 12-28: Required Commercial Site Suitability Characteristics

Required Site Characteristic	Description
Site Size	• For neighborhood centers – 3 acres minimum • For community centers – 10 acre minimum
Topography	Exclude: • Slopes of 15% or greater • Inventoried and protected riparian corridors / wetlands • Areas within the designated Stream Corridor Overlay
Proximity to Transportation and Services	• For neighborhood centers – access to major collector or minor arterial street at a minimum. • For community centers – access to minor or major arterial.
Compatibility	Exclude sites that: • For community centers, abut residential neighborhood on more than 50% of the site perimeter unless effective topographical or road buffers present or planned

Commercial Site Size

Commercial site size varies by type of commercial development. Neighborhood commercial centers are meant to be scattered throughout the community to provide goods and services near where people live. This is meaningful for neighborhoods because it reduces the amount of necessary vehicle trips for basic items, and meaningful for the neighborhood businesses because they build up a loyal customer base with little competition. Johnson-Gardner analyzed qualitative site requirements by designation and use in several EOAs they completed for cities throughout Oregon, and they found that neighborhood shopping centers typically use 3-10 acres, with leasable areas of 30,000-100,000 square feet.[64] ECONorthwest found that neighborhood commercial sites typically need between 5-10 acres.[65] These typical site sizes are large enough to accommodate a handful of small stores plus parking and landscaping space.

Community commercial centers are meant to serve a larger population, and are destination shopping areas. Community commercial centers typically use 100,000-450,000 square feet of building space, and the overall site is typically 10-30 acres in size.[66] Adequate site size is meaningful to the community commercial center because they must have adequate parking and landscaping areas, plus they need adequate space for buffers from any adjacent residential areas.

Newberg established the following commercial site size criteria:
For neighborhood centers – 3 acres minimum
For community centers – 10 acres minimum

Topography

Most businesses typically need sites that are relatively flat, particularly those businesses with

[64] Johnson-Gardner, *City of Hillsboro EOA & Long Term Land Need (2009), Klamath Falls EOA (2008)*
[65] ECONorthwest, *Cottage Grove EOA (2009), Springfield EOA (2009)*
[66] Johnson-Gardner, *City of Hillsboro EOA & Long Term Land Need (2009), Klamath Falls EOA (2008)*

large floor areas. Flat sites are meaningful to business operation for a variety of reasons, including ease of truck deliveries and customer access and parking. Commercial centers need large flat parking areas for practical reasons too such as to contain shopping carts and goods. According to ECONorthwest in the Springfield EOA:

Flat topography (slopes with grades below 10%) is needed by almost all firms in every industry except for small Office and Commercial firms that could be accommodated in small structures built on sloped sites.[67]

The Springfield EOA also states that slopes for needed commercial sites should not exceed 15%. Due to parking requirements, commercial users typically need sites that are generally rectangular in shape, with a length that is at least two times the width for new commercial sites.[68]

Areas within Newberg's designated Stream Corridor Overlay or within identified wetland areas are not developable per Newberg Development Code regulations.

Newberg established the following topography criteria:

Exclude:
Slopes of 15% or greater
Inventoried and protected riparian corridors/wetlands
Areas within the designated Stream Corridor Overlay

Proximity to Transportation and Services

Perhaps the most meaningful feature for commercial businesses is proximity to main roads for customer access and store visibility. Community commercial centers are typically located along major roads of cities where they will be the most visible to drive-by traffic and pedestrians. As the Klamath Falls EOA says,

"Transportation system that provides convenient connections and very high visibility from major arterial roadways and state highways is essential."[69]

This is emphasized in the Springfield EOA as well:

"Close proximity to a highway or arterial roadway is critical for firms that generate a large volume of truck or auto trips or firms that rely on visibility from passing traffic to help generate business. This need for proximity explains much of the highway strip development prevalent in urban areas today."[70]

Neighborhood commercial centers are typically located along collector level streets so that they can capture drive-by neighborhood traffic, without increasing traffic flow on the local neighborhood streets.

[67] ECONorthwest, *Springfield EOA (2009)*
[68] Ibid.
[69] Johnson-Gardner, *Klamath Falls EOA (2008)*
[70] ECONorthwest, *Springfield EOA (2009)*

Newberg established the following proximity criteria for commercial sites:

For neighborhood centers – access to major collector or minor arterial street at a minimum
For community centers – access to minor or major arterial

Compatibility with Adjacent Uses

It is meaningful to the operation of successful commercial businesses to have good relationships with their neighbors, particularly if those neighbors are residential in nature. In most cases, being a good neighbor means not bothering those residential neighbors too much with noise, traffic, and other nuisances, and in return the businesses get the patronage of their residential neighbors. As ECONorthwest notes:

"Targeted commercial and other employment firms typically require sites with characteristics that are similar to those of targeted basic industrial employment. However, a location separate from existing park and residential development is usually less critical, because commercial and other employment uses typically are less intensive and have fewer compatibility (noise, odor, dust, truck traffic) problems."[71]

Neighborhood commercial areas can typically be located directly adjacent to residential areas. However, although community commercial centers have fewer nuisance issues than industrial development, those issues still exist to a certain degree. Anecdotal evidence in Newberg suggests that the largest commercial complexes that are directly adjacent to residential development generate many complaints about noise and truck traffic. One way this effect can be mitigated is by having adequate land for solid and vegetated buffers, and by not being surrounded by residential development on all sides so that the commercial center can still effectively function with areas for deliveries, parking, and vehicle travel.

For those reasons, Newberg established the following compatibility criterion:

Exclude sites that:

- *For community centers, abut residential neighborhood on more than 50% of the site perimeter unless effective topographical or road buffers are present or planned*

Commercial Land and Sites

The commercial buildable land inventory inside the 2010 Newberg UGB has approximately 120 buildable acres. Newberg has seven main commercial areas. These are shown on Figure 12- 12 on page 20. Table 12-29 shows the amount of buildable land in each area.

[71] ECONorthwest, *Cottage Grove EOA (2009), Springfield EOA (2009)*

Table 12-29: Buildable Commercial Land in Newberg UGB (2010)

Location	Potential Uses	Buildable Acres	Parcels over 5 Acres Buildable
Downtown	Infill Retail and Office Uses	1	0
College/Mountainview Neighborhood Center	Neighborhood or Community Commercial Center	12	1
Springbrook Hospitality and Village	Tourist Retail and Hospitality	25	2
East Portland Road	Community Commercial Center	28	2
Portland Road	Retail and Office	19	1
Riverfront	Tourist Retail and Hospitality	10	0
Providence Drive	Medical Offices	25	2
Total		**120**	**8**

2032 Commercial Site Need and Supply

Overall, Newberg has nearly enough commercial land need to meet it needs through 2032. It has a deficit of eight buildable acres of commercial land to meet needs through 2032.

Table 12-30: Commercial Land Supply and Need through 2032

Buildable Acres Needed through 2032	Buildable Acres in 2010 UGB	(Deficit)
127	120	(7)

Note: All figures are gross buildable acres.

The East Portland Road Community Commercial meets the need for one of the community commercial centers. The Springbrook Road area serves as an expansion of an existing community commercial area.

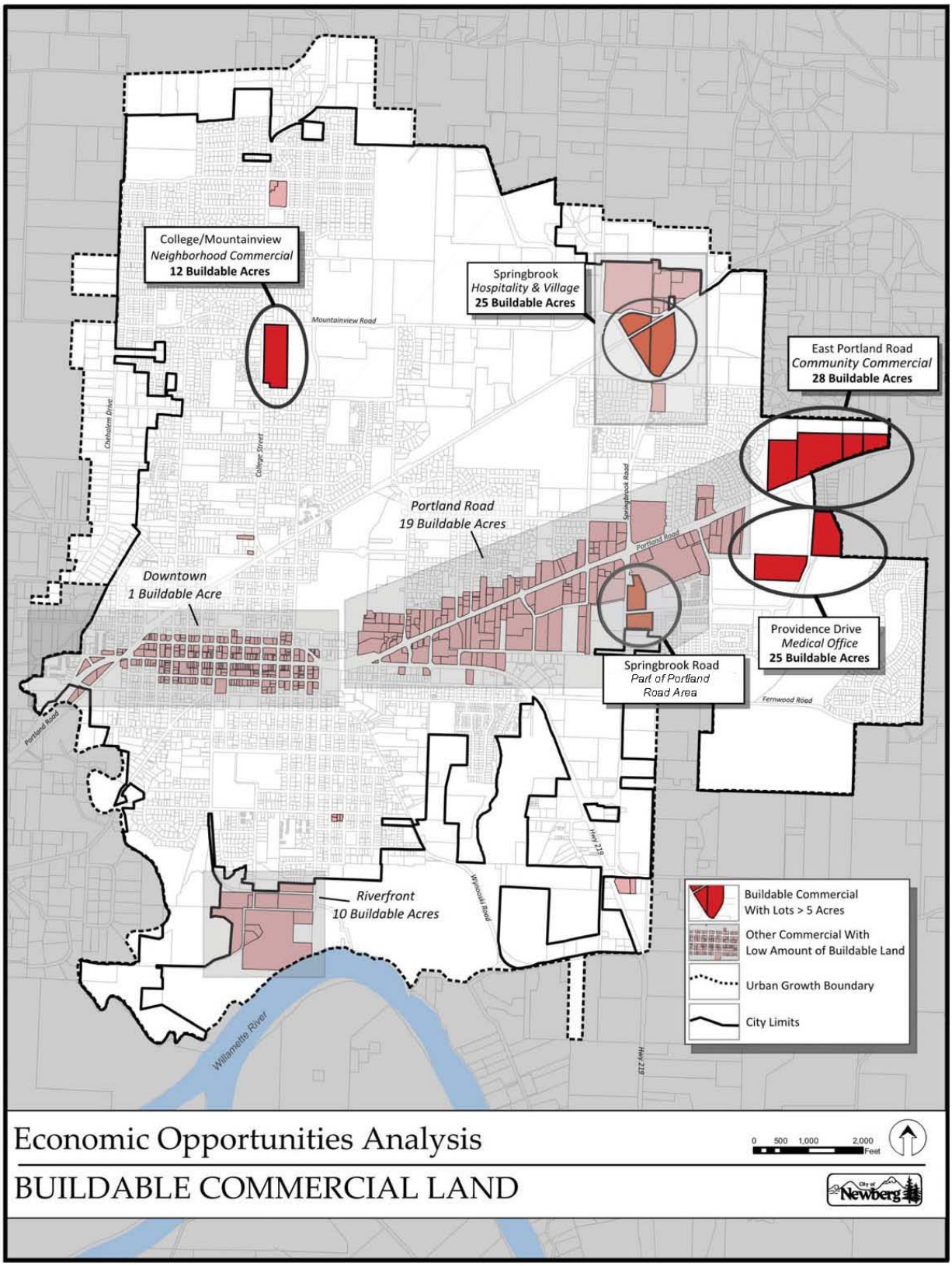
The College/Mountainview Neighborhood Commercial area, because of its size and location, could meet needs as a community commercial or a neighborhood commercial area.

The Springbrook Village area and Riverfront commercial areas are primarily tourist and leisure related commercial areas. These could serve some functions of neighborhood commercial areas,

however an additional neighborhood commercial area could be needed to serve a particular neighborhood.

The Providence Drive Medical Office area is well suited to medical office uses. Additional office uses could likely be met through expansion of existing commercial areas or through new areas.

Figure 12- 12: Commercial Areas and Buildable Commercial Land, Newberg UGB 2010



VI. Conclusion

Newberg's economic base has diversified over time and several of its home-grown industries have become national and international leaders in their respective fields. The City is slowly transitioning into more of an urban center for east Yamhill County as the population grows. However, Newberg citizens have made it clear that they value the "live here, work here, shop here" values and way of life. To keep up the City's commitment to the values of its residents, Newberg must strengthen its economic base and provide adequate industrial and commercial land for current and future populations.

The industrial and commercial buildable land supply tables in this report indicate a shortage of both types of land within the current Newberg Urban Growth Boundary. It is critical for economic development efforts to have adequate buildable land available that meets the identified site suitability requirements for both industrial and commercial areas. The City cannot help provide enough jobs for current and future residents without adequate land to locate new businesses on, and without adequate land for existing businesses to expand onto.

Fortunately, Newberg has many advantages that make it stand out in the regional marketplace, including the following:

- Small town quality of life
- Access to quality education and skills training
- Strong established and growing industry clusters
- Strong local support for business and employment opportunities
- Proximity to the Portland Metropolitan Region
- Future Newberg-Dundee Bypass
- Compliance with Oregon's statewide planning goals

In addition, Newberg has easy access to Interstate 5 on its south side for easy access to industrial locations. One of the most important advantages on the list is that Newberg has strong existing and growing industry clusters in the areas of manufacturing, health care, higher education, and wine tourism. Providing additional adequate land for industrial and commercial businesses that are in these same sectors and other compatible sectors will help strengthen Newberg's economic base for the future.

By following the recommended actions in the plan, Newberg can maintain and build a strong economic base to benefit all its citizens.