Catalytic Value of the Willamette Falls Project

A report on the impact of transformation of Oregon City's former Blue Heron Mill site

September 2012

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EXECUTIVE SUMMARY

A partnership between Metro, Oregon City, Clackamas County, and the State of Oregon is currently investigating the purchase of the former Blue Heron Paper Mill in Oregon City, a project called the Willamette Falls Legacy Project. The 22-acre site is situated along the Willamette River adjacent to Willamette Falls, offering a rare opportunity for the acquisition of a scenic and historically significant site.

PURPOSE

The purpose of the Willamette Falls Catalytic Value report is to provide the partnership with an initial analysis of the value of redeveloping the site. Specifically, the report defines the spillover benefits that transformation of the site could bring to Oregon City, Clackamas County, the Metro region, and the State of Oregon.

Redevelopment of the site will be based on four agreed-upon values of the partnership:

1. Public access to the Falls
2. Cultural and historical interpretation
3. Environmental restoration
4. Economic development

While there are many possibilities for the future of the site, the four values point toward a site that is a community asset and destination due to the presence of Willamette Falls and its historical and cultural significance. As environmental restoration and public access are two of the four values, open space is expected to be included in any site plan. Also, the location of the site directly adjacent to historic downtown Oregon City makes it possible to extend the downtown grid onto the site. Private development with a mix of uses, including retail, office, and residential, would supplement the economic development value of the site.

PUBLIC BENEFITS

A fully transformed site will give residents and visitors the opportunity to enjoy the site's beauty and historical significance. It will increase property values in the City, contributing to the wealth of the community. It will spur the creation of new businesses in the City and County, from hotels and restaurants to retail stores and recreational businesses. It will house jobs that contribute to regional economic development and the growth of the Oregon City regional center. It will improve the environment through habitat protection. It will make Oregon City and the region a more attractive place to live, work, and do business.

Public benefits of redevelopment of the site discussed in this report include:

1. Job Creation
2. Tourism Potential
3. Property Value Increases
4. Downtown Revitalization
5. User Benefits
6. Environmental Benefits

7. Immeasurable Intrinsic Value

1. The site can contribute to the regional economy through job creation

Although due diligence has not been completed and actual site capacity remains unknown, preliminary analysis using several assumptions (described in the full report) shows the site could house up to 926,000 square feet of mixed use space, representing an investment of $194 million. The temporary and permanent jobs created through this development include:

- 560 to 1110 Construction jobs
- 550 to 1090 office and retail jobs
- 228 to 489 residential units - which support 10 to 20 jobs
- 1120 to 2220 indirect and induced jobs from the multiplier effect of jobs on site

2. The site can become a nationally significant tourist destination

Heritage tourism contributes more than $192 billion annually to the US economy. Analysis shows that the site could attract 1,000,000 visitors annually, creating up to 931 jobs. The site could also be an iconic location for festivals and other events, attracting even more visitors and economic activity.

Potential Annual Impacts of Low, Medium and High Overnight Visitor Levels

Visitor Level	Low	Medium	High
Total Visitors	331,000	658,000	1,000,000
Total Visitor Spending	$24,219,000	$ 48,242,000	$73,000,000
Jobs Supported by Visitor Spending	309	615	931

Source: Dean Runyan Associates.

3. Redevelopment will increase property values in Oregon City

The site currently has a negative $2 million impact on property values, demonstrated by regression analyses. Assuming a conservative 5% increase in property value from development of open space and public access, redevelopment of the site will generate at least $7.5 million in off-site property value increases and increased property tax revenue. Historic preservation has also been shown to increase property values in neighborhoods.

4. The site will take revitalization of downtown Oregon City to the next level

Site redevelopment will create impetus for new development in downtown Oregon City, including residential, mixed use, and hotels. Currently, 23% of the land surrounding the site has high or very high redevelopment potential. Transformation of the site will make Oregon City more attractive to potential residents and businesses.

5. Recreational amenities are highly valued by the public

Surveys have been conducted in several cities to determine residents' willingness to pay for parks and other amenities. In each city surveyed, residents valued general use visits at about $2.00 each. In Philadelphia, the value per visit to a historic site was $3.13.

If the Willamette Falls site receives the same number of annual visitors as the Crown Point Vista House (one million), the site would be worth $2 million to $3 million annually in user benefits. Special uses like gardens and festivals would be expected to result in an even greater total benefit.

6. Redevelopment of the site will protect and improve natural habitat and contribute to regional climate change efforts

Currently, stormwater from the site does not undergo treatment using best practices and is likely to contain harmful compounds that enter the Willamette River. The site has the capacity to naturally treat stormwater from the site and from other parts of Oregon City. Treatment could be accomplished using sustainable and innovative methods, providing educational value as well as environmental value.

Redevelopment of industrial land and historic preservation are effective in reducing development pressure on valuable farm and forest land near the urban growth boundary. Research shows that one acre of redeveloped urban brownfield land results in the preservation of multiple acres of outlying green space.[1] Historic preservation also conserves resources when compared to new construction.

7. The site has immeasurable intrinsic value

Perhaps the most important benefit to some members of the community, redevelopment of the Blue Heron site has cultural and other intrinsic value that cannot truly be measured. Willamette Falls is an iconic, beautiful vista that for over 150 years has been blocked from the public by an imposing paper mill. This project will allow the regional community to reclaim the Falls and bequeath this priceless asset to future generations.

Redevelopment of the Willamette Falls site will be a catalyst for positive change in Oregon City and beyond. Transformation of the site into a mixed use extension of downtown Oregon City, with a historic destination and open space, will bring multiple benefits to the greater community.

INTRODUCTION AND PURPOSE

A partnership between Metro, Oregon City, Clackamas County, and the State of Oregon is currently investigating the purchase of the former Blue Heron paper mill in Oregon City, a project called the Willamette Falls Legacy Project. The 22-acre site is situated along the Willamette River adjacent to Willamette Falls, and offers a rare opportunity for the acquisition of a scenic and historically significant site for public use.

The purpose of the Willamette Falls Catalytic Value report is to provide the partnership with an initial analysis of the value of redeveloping the site. Specifically, the report defines the benefits that transformation of the site could bring to Oregon City, Clackamas County, the Metro region, and the State of Oregon.

There are several assumptions this report makes about the property, specifically that the partnership will purchase the site, remove all or most structures, and prepare the site for development (with or without private partnership) – including environmental clean-up and infrastructure upgrades. Also, it is assumed that the site will be developed in a way that represents the four values of the Willamette Falls partnership:

Willamette Falls Partnership Values

1. Public access to the falls
2. Cultural and historical interpretation
3. Environmental restoration
4. Economic development

These four values are synergistic and complementary in that they work together to create multiple benefits for the region. For example, environmental restoration, public access to the falls, and cultural and historical interpretation all contribute to a livable, amenity-filled downtown Oregon City, which will attract new residents, businesses, and tourists. This new activity in turn supports economic development, the fourth value.

Private development is also assumed, but the type and intensity of redevelopment is uncertain as no market feasibility has been completed for the site and no visioning or master planning has occurred. Thus, several assumptions regarding private development are used in this report. These assumptions are optimistic and are based on a long-term complete transformation of the site and successful achievement of the four values.

The report begins with a description of the site, a summary of opportunities and constraints, and a description of plans and efforts that will impact the development of the site. It then discusses the value of transforming the site in terms of job creation, tourism potential, property value increases, downtown revitalization impacts, user benefits, environmental benefits, and intangible benefits.

ABOUT THE SITE

HISTORY

Willamette Falls is a historically rich area that has served as a crossroads and energy source for several cultures. Geological records tell us that Willamette Falls was created by a large lava deposit that prevents the river's water from carving any deeper in the earth. The Willamette River possibly got its name from the native Wal-lamt tribe, which may translate to 'spill water'.[2]

Looking south, The Blue Heron site is shown in the foreground, with the Falls in the distance and the West Linn Paper Company on the west side of the River.

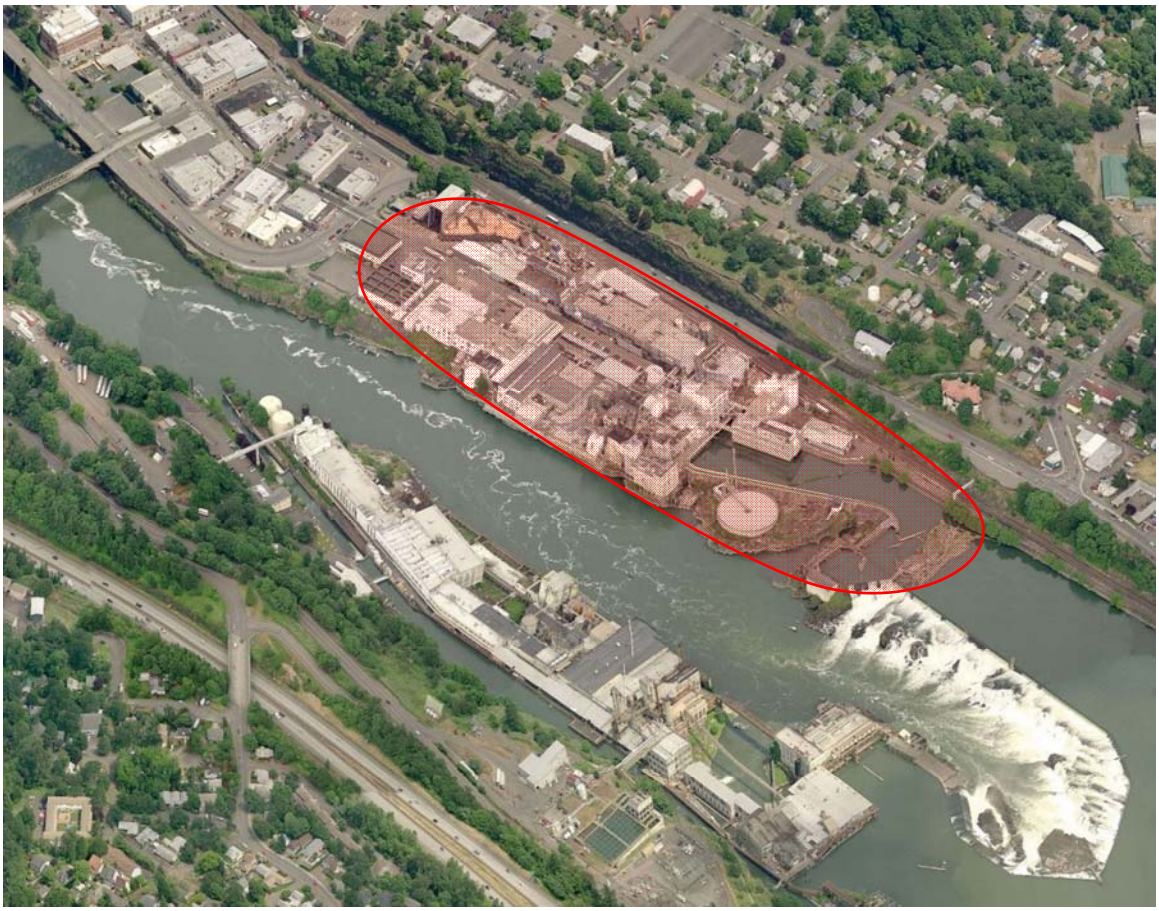
Willamette Falls was an important fishing, gathering, and trading site for indigenous groups from all over the Pacific Northwest. As many as 11 villages were reported by Lewis and Clark living in the area in 1805. Tribes knew the Falls as "Hyas Tyee Tumwater" (Great Chief Waterfall) or "tumtum" for short.[3]

The Falls also marks the end of the Historic Oregon Trail, a 2,000-mile journey taken by thousands of pioneers in the 1800s. Because the rock formation of the Falls made further passage downriver impossible, early settlements of Oregon City and West Linn developed in the area. Ever since, people have harnessed the incredible power of the falls for industrial uses of production milling and electricity generation.

The 22-acre Blue Heron property, directly adjacent to the Falls, has served as an industrial centerpiece to Oregon City's historic downtown area for many years. The site was home to Dr. John McLoughlin's original mill, as well as the original first five blocks of historic Oregon City, which were slowly overtaken by mill development throughout the years. The former woolen mill foundation is one of the oldest surviving structures on site, and many other historic structures and elements remain intact. The paper mill, opened in 1908, operated under several owners over the years; it was most recently employee-owned and operated. In February 2011, the company announced closure of the facility.

CHARACTERISTICS

The site fronts the Willamette River, overlooking Willamette Falls. With a height of 42 feet and a crest of nearly 1700 feet, Willamette Falls is the second largest waterfall by span in the United States (Niagara Falls being the largest at 3,950 feet). The flow over the falls averages approximately 20,000 cubic feet of water per second (cfs); however with most of that water diverted for hydroelectricity through the Portland General Electric dam surrounding the Falls, the actual amount is more likely an average of 5,000 cfs.[4]



The site, shown with a red overlay, sits across the Willamette River from the West Linn Paper Company in West Linn. Downtown Oregon City is shown in the upper left hand corner, and Willamette Falls is in the lower right corner. The bluff that separates the site from other Oregon City neighborhoods is also visible along 99E on the east side of the site.

Site investigations are underway to answer questions about environmental issues such as stormwater management and contamination. A portion of the site is located in the 100-year floodplain. New development in the floodplain is challenging, but potential re-use of existing structures and foundations could present possibilities. The floodplain may therefore be a desirable area for development of trails and open space, along with environmental restoration and daylighting of water outfalls. Further due diligence will provide more definitive answers to these questions.

While there is likely little contamination on the site, minimal clean-up may be required. The site is not a superfund or officially-designated brownfield according to the State of Oregon, but as a former industrial site it is considered a brownfield by other definitions.

VISIBILITY AND ACCESSIBILITY

The Blue Heron site is currently accessible only via the intersection of Main Street and 99E/McLoughlin Blvd. Its placement along the Willamette River makes it highly visible to anyone visiting or driving past downtown Oregon City. It is less than a mile from Interstate 205 and a 25 minute drive (about 13 miles) from downtown Portland. The Portland International Airport is also less than a 30 minute drive from the site. There is an operating freight railroad line along the eastern edge of the site, with a spur onto the site.

McLoughlin Blvd. along the edge of downtown had average daily traffic of 23,400 vehicles in 2010. Tenth Street in downtown Oregon City saw an average of 8,757 daily vehicles in 2010. Average daily traffic on Interstate 205 in Oregon City in 2010 was approximately 114,000 vehicles.[5]

Although the site is in close proximity to I-205 and McLoughlin Blvd, direct vehicular access to the site is greatly constrained by its relationship to McLoughlin Blvd. The geography of the area further limits options for new transportation infrastructure. McLoughlin Blvd. poses a significant barrier for pedestrians and bicyclists crossing from downtown. The Oregon City transit center offers bus service six blocks north of the site, and long range plans for the region call for light rail service to Oregon City.

CONTRIBUTION TO THE REGION

The Blue Heron Paper Mill supported about 175 industrial jobs at the time of its closing in 2011, representing a great loss to the Oregon City economy. It was especially unfortunate because wages in manufacturing tend to be higher than other blue collar jobs or jobs in the service industry. In addition to providing living wage jobs in Oregon City, the company paid $28,008 in property taxes to the County, City, and other public agencies last Fiscal Year[6] and contributed to the downtown economy for many years.

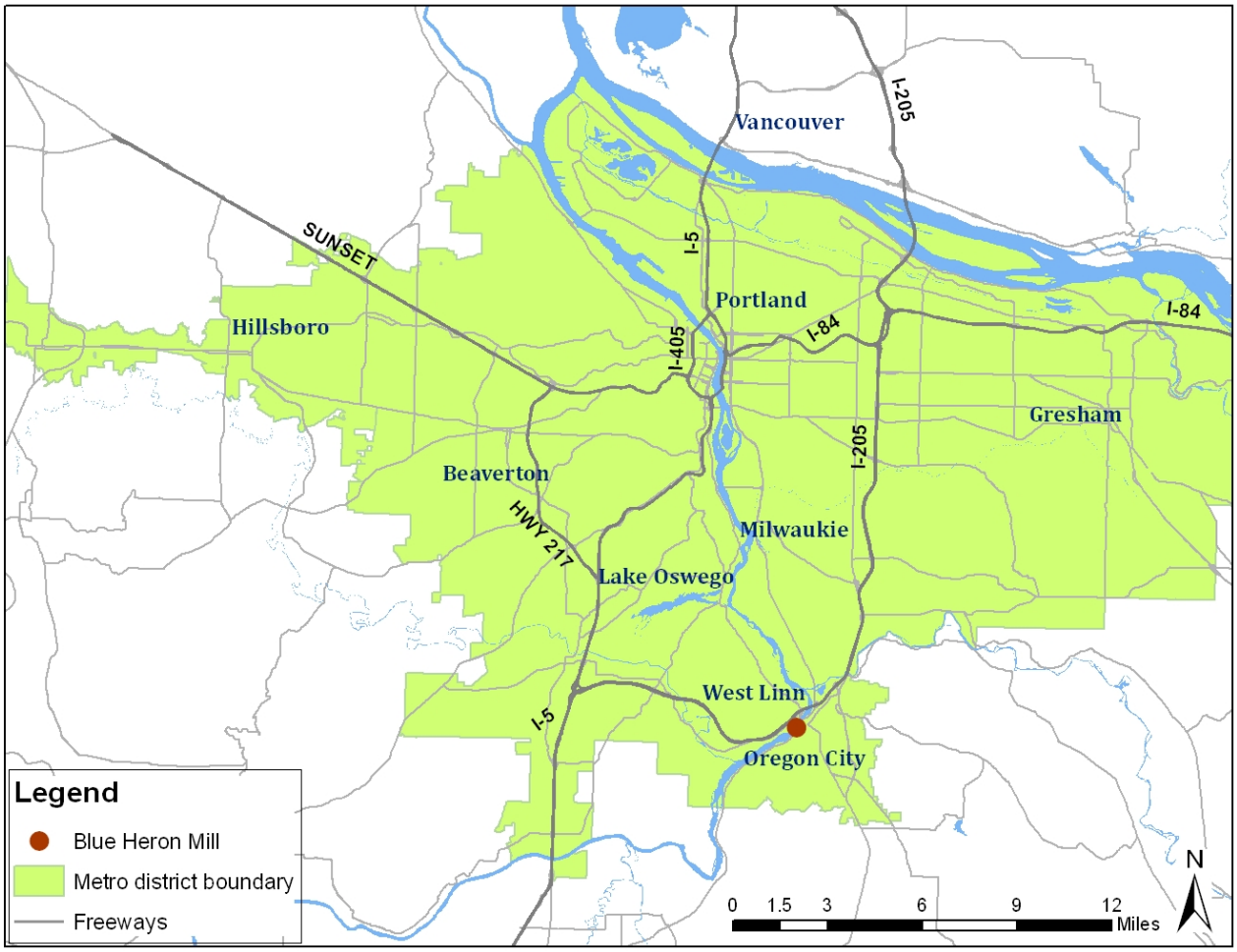
According to water usage records from the City, an average of 45.36 million gallons per year was used from 2005 through 2010.[7] The annual payment made to Oregon City for that water usage was approximately $130,000 per year. For wastewater services, the Blue Heron Paper Company paid the City $42,675 per year, and for stormwater services, $16,892 per year.[8]

LOCATION

The site is located adjacent to downtown Oregon City, which is sits at the confluence of the Clackamas River and Willamette River just 13 miles south of Portland. Oregon City is bordered by the City of West Linn to the west, Gladstone to the north, and rural areas to the south and east. The site is directly adjacent to historic downtown Oregon City, which has a thriving Main Street program that has helped establish over 40 new businesses in downtown in the past few years.

Oregon City's population was estimated at about 32,000 in 2011. It has doubled in the past 20 years, growing at a higher rate than the County and nearby cities of Gladstone, Lake Oswego, Milwaukie, and West Linn. Projections show the population continuing to grow, reaching almost 50,000 by 2040.[9] Oregon City is striving to achieve more economic activity and greater development intensity as a Regional Center for its surrounding cities. As a Regional Center, Oregon City will ultimately serve more than 150,000 people.

Figure 1. Site Location within the Region



EXISTING PLANS

This section includes a brief description of policies and plans affecting the Blue Heron site.

METRO 2040 GROWTH CONCEPT

The 2040 Growth Concept is a long-range plan for the future, intended to guide growth and development over 50 years. It is based on a set of shared values: thriving neighborhoods and communities, abundant economic opportunity, clean air and water, protecting streams and rivers, preserving farms and forestland, access to nature, and a sense of place. The 2040 growth concept established ten urban design types as the "building blocks" of the regional strategy for managing growth. Oregon City is designated as a Regional Center, where two- to four-story compact employment and housing development served by high-quality transit is envisioned.

WILLAMETTE RIVER GREENWAY

The Willamette River Greenway was originally established by the 1967 Oregon Legislature as a grant program for land acquisition to State Parks along the Willamette River from Eugene through Portland. Goals for the state program are to protect, conserve, restore, enhance and maintain the ecological, natural, scenic, historical, agricultural, economic, cultural and recreational qualities and resources along the Willamette River.

CLACKAMAS COUNTY ECONOMIC LANDSCAPE, 2012

Clackamas County's Economic Landscape is a guide to achieving the County's economic goals, which include increasing the jobs-housing ratio, increasing averages wages, and ensuring that land and infrastructure is being put to its highest and best use to balance economic opportunity with quality of life. The Landscape identifies key industry clusters, which include:

- Nurseries and Greenhouses
- Transportation and Distribution
- Wood Product Manufacturing
- Professional Business Services
- Wholesale Trade
- Advanced Manufacturing – metals and machinery
- Advanced Technology - high tech
- Health Care
- Food and Beverage Processing
- Agriculture and Food Production
- Film and Media Production

OREGON CITY FUTURES ECONOMIC DEVELOPMENT STRATEGY, 2004

This strategy developed a mission and vision for Oregon City as a Regional Center:

Mission: To build a sustainable community that promotes public health and safety, economic growth, diversification, parks and recreation, library services, efficient utilities, appropriate and fair land use administration, and protects the livability, environment and uniqueness in this historic place.

Vision: To re-establish Oregon City's historic role as a regional hub for business, commerce, transportation, innovation, tourism, and livability.

The strategy specifically mentions potential redevelopment of the Blue Heron site as the south anchor of downtown. It outlines the following desires for the site:

- Retain historic character and flavor of original mill
- High density loft and condominium housing on the water
- Mixed-use housing and retail
- Capitalize on views of falls and river
- Specialty and local serving retail
- Connection to Waterfront
- Link to Historic Old Town

OREGON CITY COMPREHENSIVE PLAN, 2004

Oregon City's Comprehensive Plan has numerous goals relating to historic preservation, open space, scenic views, and natural resources. In addition, it lays out the following guiding principles that relate to future development in the City:

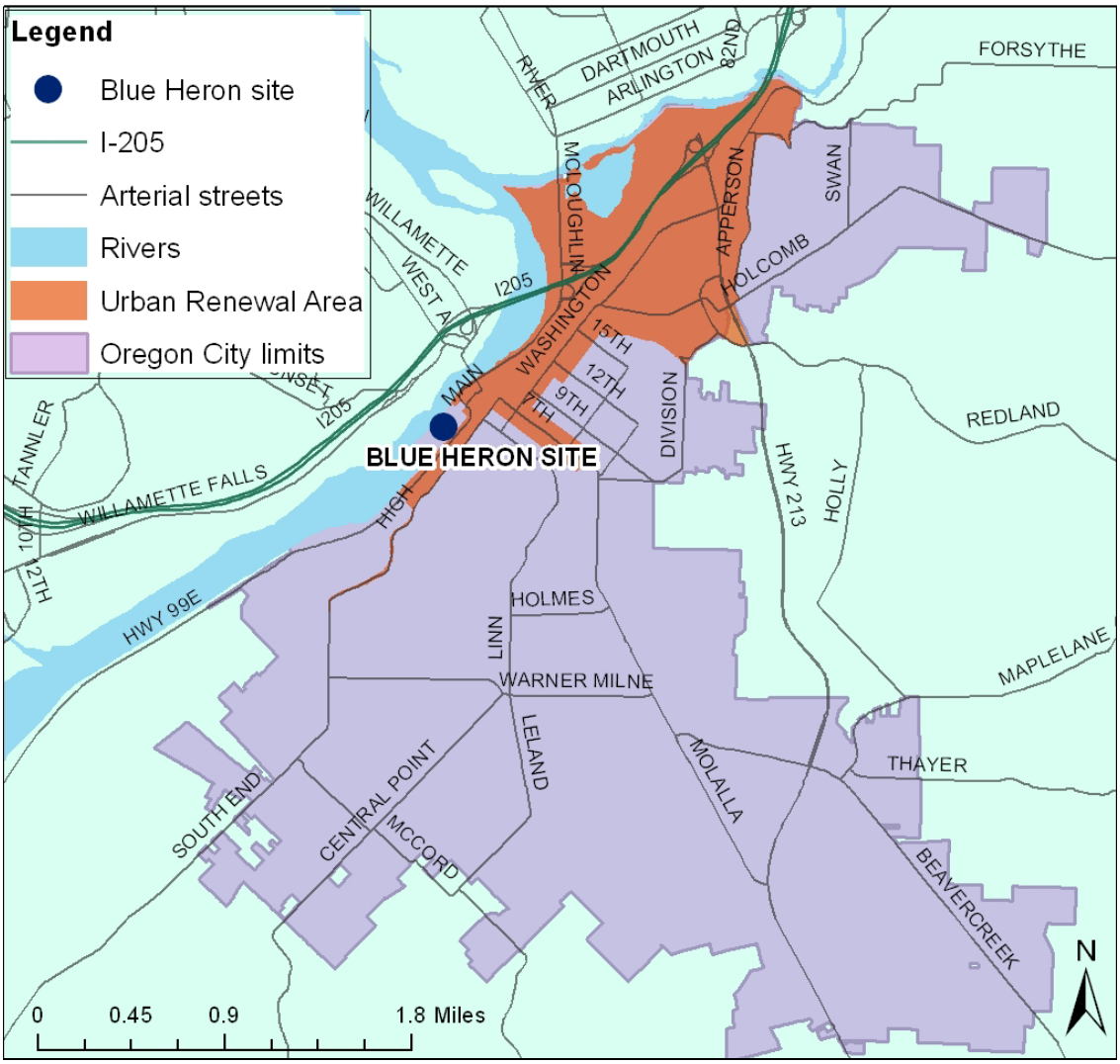
- Promote sustainability and sustainable development
- Contain urban development
- Promote redevelopment
- Protect natural resources
- Foster economic vitality
- Provide efficient and cost-effective services
- Ensure a sense of history and place

OREGON CITY URBAN RENEWAL PLAN FOR DOWNTOWN, 2007

The Urban Renewal Area (URA) in Oregon City encompasses all of historic downtown, properties to the north of downtown near Clackamette Cove, and properties on the Bluff above the downtown and the mill site. Two of four separate parcels that make up the Blue Heron site, consisting of less than acre of the site, are part of the downtown Urban Renewal Area. Extending the Urban Renewal Area onto the entire mill site is a possibility in the future. Whether or not the site is added, it will have a large impact on the Urban Renewal Area. Any improvements made to the site will increase the value of surrounding properties, contributing tax increment to the URA, and any spinoff development that occurs will likely be located in the URA. The goals of the URA align closely to the four values of the Willamette

Falls partnership, including historic preservation, economic development, and public access to the river.

Figure 2. Oregon City's Urban Renewal Area



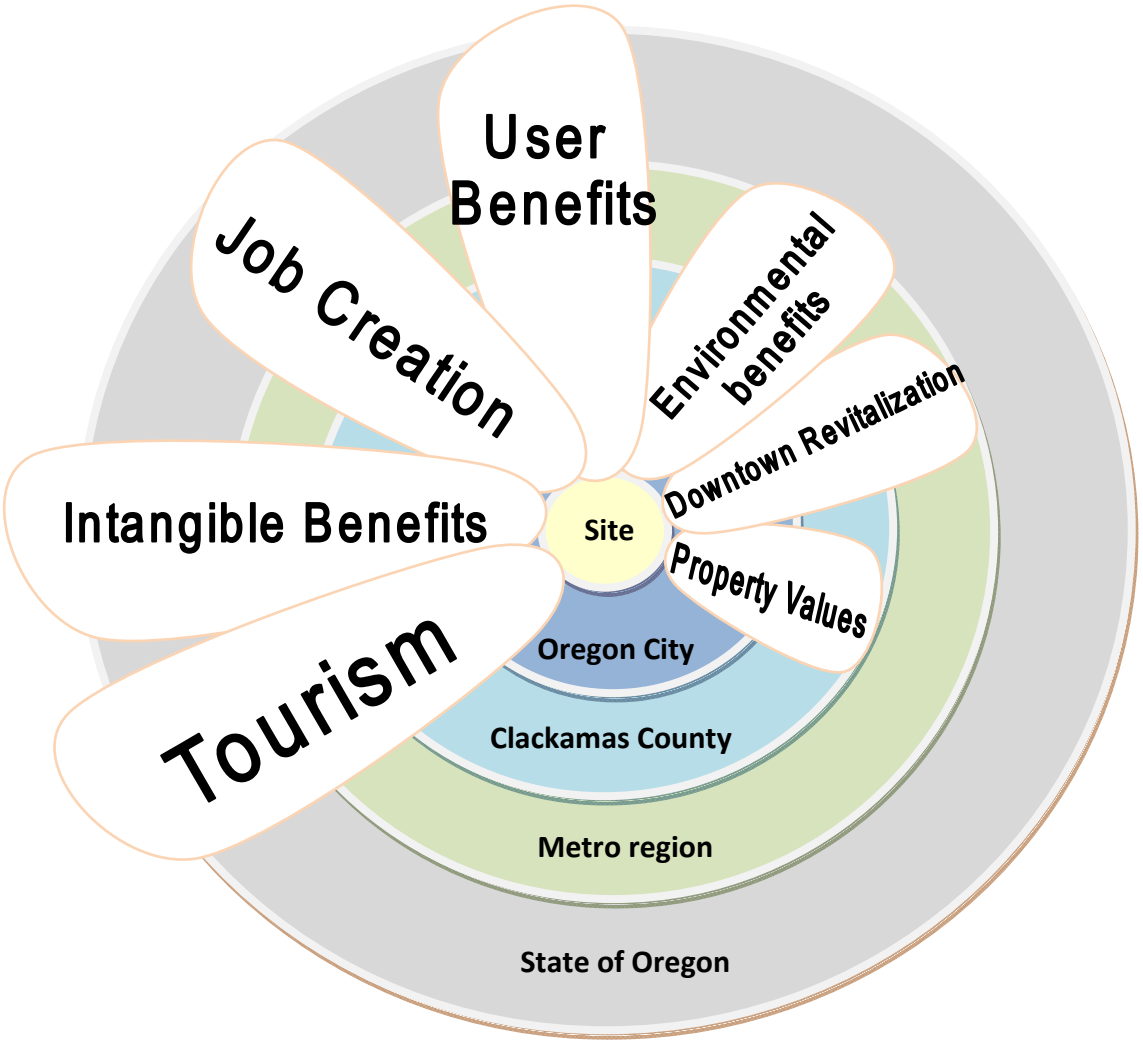
OREGON CITY WATERFRONT MASTER PLAN, 2002

This plan calls for the reconnection of the City to the waterfronts of the Willamette and Clackamas Rivers. It proposes an enhanced pedestrian walkway from 5th Street to Clackamette Park. It also highlights the need for a safer and more comfortable pedestrian experience along McLoughlin Boulevard, calling for wider sidewalks, street trees, and traffic calming.

PUBLIC BENEFIT ANALYSIS

Transformation of the Blue Heron site will result in numerous public benefits. The site represents 22 acres of potentially job-producing and revenue-generating land, in addition to the amenities that could be made available to residents of the region. The unique location of the site on the riverfront and adjacent to Willamette Falls means that redevelopment will contribute to the environmental, economic, and social health of the region. As this is a long-term project with a horizon of ten or more years, the timeframe for realizing these benefits varies, with some being realized shortly after acquisition and clean-up and others much later.

Figure 3. Public Benefits of the Willamette Falls Project



While not considered a benefit on its own, the value of historic preservation is reflected in many of these benefits, including tourism, job creation, and property value increases. Likewise, fiscal value is reflected throughout the various benefits as well – including tax revenue from property value increases, new jobs and incomes, and hotel room taxes.

THE COST OF DOING NOTHING

The former Blue Heron Mill site is of great significance to Oregon City and to the region. The site is historic downtown Oregon City's immediate neighbor, and if left vacant, would have a large negative impact on the City. To date, the private sector has not made an offer to purchase the site as is. Without an investment from the public sector, it is almost certain that the site will sit vacant – gutted of its valuable equipment and left with the shells of the 52 separate structures on site. If left in this state, the property will be a drag on the redevelopment of downtown Oregon City and may hurt the overall reputation of the City. The positive momentum that has been fostered in recent years could be lost.

It is also possible that the current owner of the property could abandon the site due to the cost of securing and maintaining the site. Vacant and abandoned industrial sites pose a threat to public health and safety. These types of building can attract squatting and illicit drug use, illegal dumping, and other trespassers.

The property, in fact, already has a negative impact on surrounding property values. An analysis of residential and commercial properties within 0.4 miles of the site shows a negative impact of $2,000,000 overall (see page 42 for a complete analysis of property values). Each property owner will continue to see depressed values if the site remains as is or continues to deteriorate.

"The costs (of doing nothing) include financial losses in terms of jobs, tax revenue and economic growth, stigmatization of the area, possible exacerbation of the environmental impact …"

The National Brownfield Association, Site Technical Assistance for a Municipal Project, 2007

JOB CREATION

Job creation is extremely important for the state of Oregon and the region. Goals of the State, region and County include retaining companies and the jobs they provide, expanding existing firms for job growth, and developing and maintaining an inventory of shovel-ready land and to create jobs and attract new employers.[10]

Redevelopment of the site will support job creation on and off the site. Many of these jobs will be in Oregon City, and others will be elsewhere in the County, region, or state. The following activities will contribute to job creation:

- Site Maintenance, Development and Construction
- Historic Preservation
- Commercial Offices
- Retail
- Tourism-related Services
- Residential Property Management
- Public Park Management

An economic input-output model called IMPLAN was used for job creation estimation in this report. More information about the program and input-output models in general is found in Appendix A. This section of the report includes economic data about Oregon City and the region and then examines potential job creation through each of the activities listed above.

Direct jobs are those in the construction industry. These industries purchase services, supplies and materials in the local economy, which constitutes the **indirect impact** of construction or repair spending. Lastly, employees in all of these industries receive wages and spend those wages in the local economy, creating an **"induced" effect**. The total jobs created are the sum of direct, indirect, and induced jobs.

Current Employment in Oregon City

In 2010, about 13,000 people worked in Oregon City, not including self-employed individuals.[11] About 85% of those workers lived outside of the Oregon City limit. Likewise, about 85% of people who reside in Oregon City work outside of the City.[12] Table 8 shows the top five industries in Oregon City. Public administration, education, and healthcare are the top industries, employing nearly half of all workers, reflecting the City's major employers: Clackamas County Government, Clackamas Community College, and Willamette Falls Hospital.

Table 8. Top Five Industries in Oregon City by Employment, 2010

Industry	Percent of total employment
Public Administration	18.2%
Educational Services	16.1%
Health Care and Social Assistance	14.3%
Retail Trade	11.6%
Accommodation and Food Services	9.2%

Source: U.S. Census Bureau OnTheMap Application, Longitudinal-Employer Household Dynamics Program.

Jobs located in Oregon City pay less than jobs in the overall Metropolitan Statistical Area (MSA). Table 9 below shows the percentage of jobs that pay less than $1,250 per month ($15,000 per year) is higher in Oregon City, and the share of jobs that pay more than $3,333 per month ($40,000 per year) is lower in Oregon City.

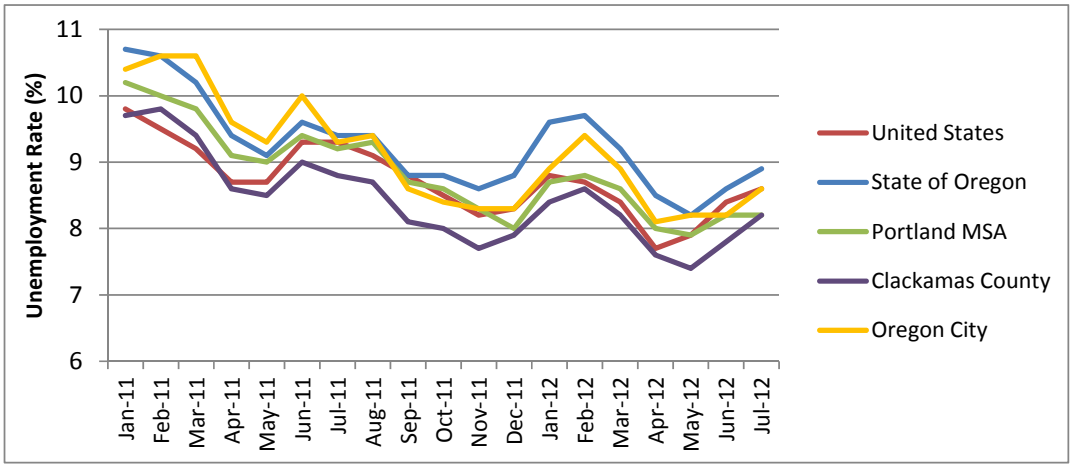
Table 9. Earnings in Oregon City and the Portland MSA, 2010

Percent of Jobs by Earnings	Oregon City	Portland MSA
$1,250 per month or less	26.4%	22.7%
$1,251 to $3,333 per month	36.4%	36.5%
More than $3,333 per month	37.1%	40.8%

Source: U.S. Census Bureau OnTheMap Application, Longitudinal-Employer Household Dynamics Program.

The unemployment rate in Oregon City, 8.6% in July of 2012, was lower than the state of Oregon, at 8.9%,[13] but higher than Portland metropolitan area and Clackamas County unemployment rates. Figure 5 shows unemployment rates for the last year and a half. Income and educational attainment in Oregon City is less than the regional average. Median household income is $51,499 (2008-2010 estimates) compared to $55,618 for the region, and 21.9% of adults over age 25 have a Bachelors degree or higher compared to 33.6% for the region.[14]

Figure 5. Unemployment Rates, 2011-2012



Source: Bureau of Labor Statistics and Oregon Employment Department. Unemployment Rates shown are not seasonally adjusted.

Job Creation Assumptions

Investigations regarding the land available for development on the site are ongoing. In order to provide estimates of jobs creation, several assumptions had to be made. Three separate scenarios for intensity of development on the site are tested – one using an average of four to one Floor Area Ratio (FAR), another using three to one FAR, and a third using two to one FAR. Floor Area Ratio is the ratio of the square footage of building to the square footage of land. While these ratios are considered high for Oregon City at this time, they are possible with a fully transformed site in the future. Assumptions regarding private development on the site are as follows. See Appendix B for greater detail and explanation.

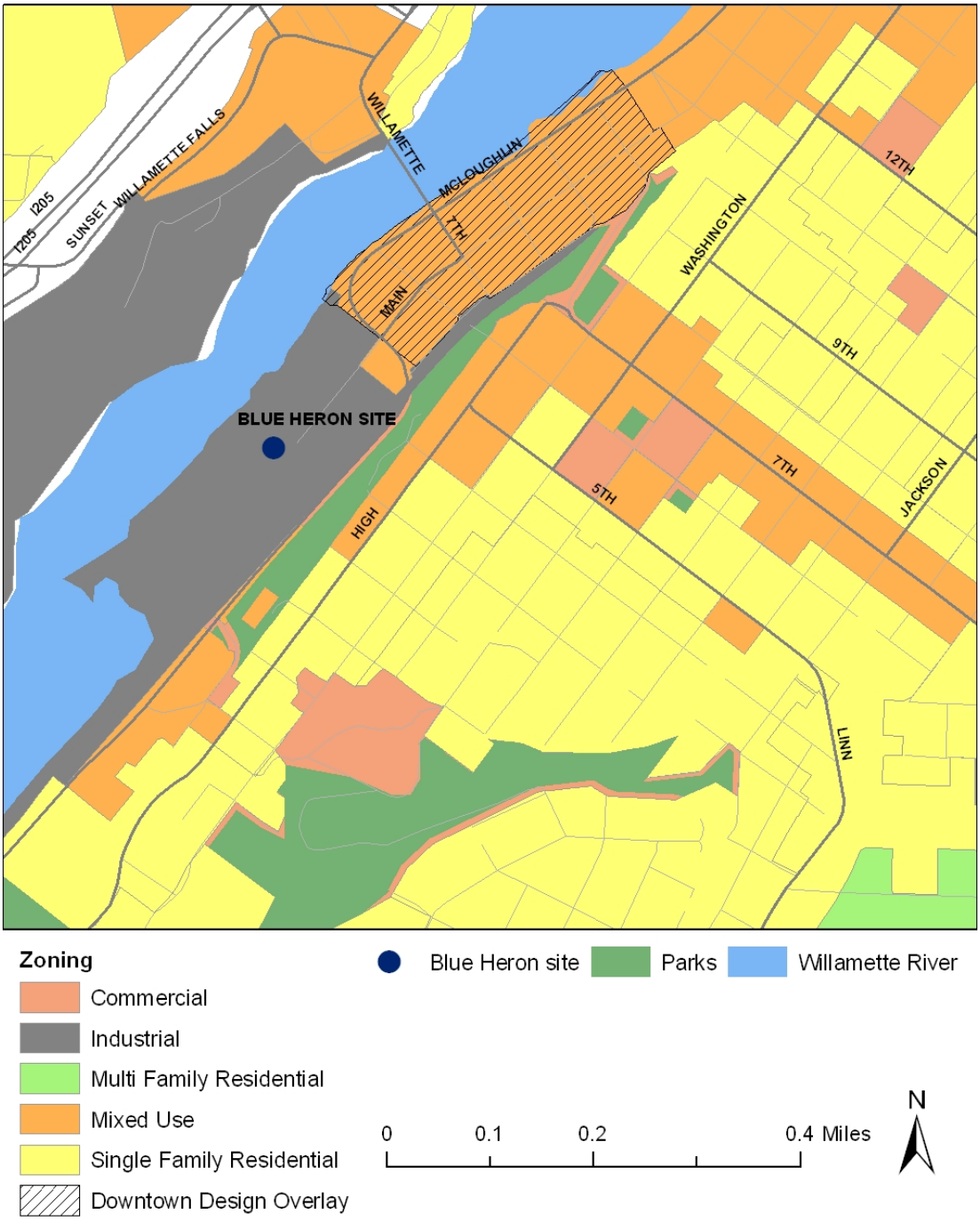
- 11 acres of developable land
- 30% of land area used for public right of way (3.3 acres), leaving 7.7 acres for development
- Mixed Use Development: 9-13% retail, 28-30% office, 28-30% residential, and 30-31% structured parking
- Construction costs of $160 per square foot for offices, and $195 per square foot for residential and retail (high estimate), and $20,000 per parking space. [15]

These assumptions result in 670,000 to 1.34 million square feet of total building space, including parking structures, with a construction cost of about $98 million to $194 million.

Site Maintenance, Development and Construction

Although the current zoning on the site is industrial, the City of Oregon City has indicated that the Mixed Use Downtown (MUD) zoning district is an appropriate designation for the Blue Heron site. The mixed-use downtown (MUD) district is designed to apply within the traditional downtown core along Main Street and includes the "north-end" area, generally between 5th Street and Abernethy Street, and some of the area bordering McLoughlin Boulevard. The character of the zone is intended to be high-volume establishments constructed at the human scale such as retail, service, office, multi-family residential, lodging or similar uses. A mix of high-density residential, office and retail uses are encouraged in this district, with retail and service uses on the ground floor and office and residential uses on the upper floors. The emphasis is on those uses that encourage pedestrian and transit use. There is no maximum Floor Area Ratio in the MUD zone; however, maximum heights range from 45 feet to 75 feet depending upon location within the downtown area. Minimum FAR is 0.3 in the MUD zone and 0.5 in the Design overlay area.

Figure 6. Current Zoning Surrounding the Blue Heron site



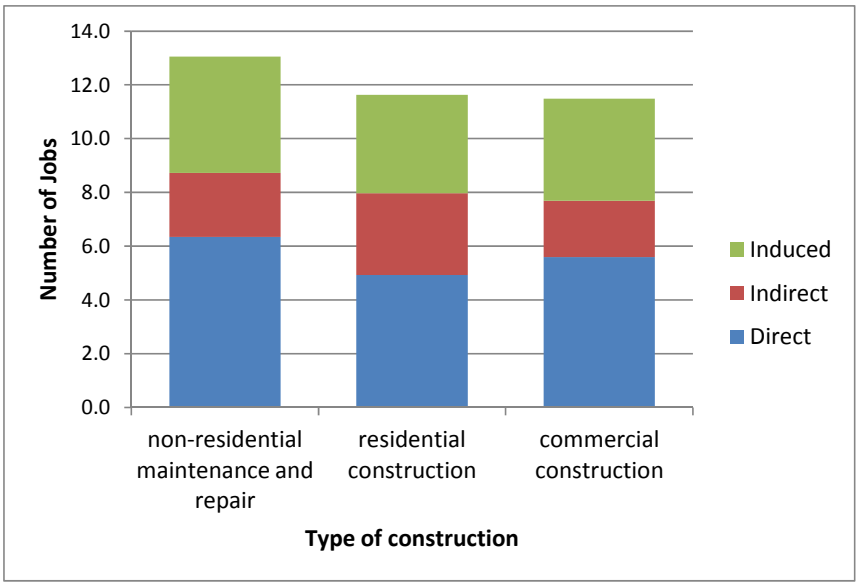
This analysis assumes about half of the site, or 11 acres, could be utilized for private mixed use development. Several historic structures on the site could serve as building shells for commercial, office or residential uses, and the remainder of the site could be developed as an extension of the downtown grid, with Main Street extending into the site as the focal point. Redevelopment of the site will require demolition, renovation, and maintenance, in addition to new construction.

Table 10. Jobs created per $1 million in spending in the Metro region

Activity	Direct Jobs	Average Income per job	Total Jobs
Maintenance and Repair*	6.3	$ 62,374	13.1
Residential Construction**	4.9	$ 58,498	11.6
Commercial Construction**	5.6	$ 61,198	11.5

Source: IMPLAN. *For spending occurring in 2014. **For spending occurring in 2016. Demolition is not a separate industry in IMPLAN. Average income per job includes only direct jobs.

Figure 7. Direct, Indirect, and Induced Jobs created from $1 million of construction spending in the Metro Region



Source: IMPLAN

Using the assumptions mentioned earlier, construction job creation for each scenario is shown in Table 11. These estimates do not include the jobs associated with demolition, maintenance, or building rehabilitation. In IMPLAN impacts are defined as the value of production occurring a single calendar year. Therefore, multi-year construction projects must be examined as annual expenditures. This analysis places all spending within one single year.

Table 11. Total Construction Jobs created from Site build-out

Scenario	2 to 1	3 to 1	4 to 1
Total square footage	671,526	1,007,307	1,343,020
Total construction cost	$ 97,728,028	$147,773,188	$ 193,878,045
Direct jobs created	563	848	1,112
Total jobs created	947	1431	1,876

Source: IMPLAN. For spending occurring in 2016.

Historic Preservation

There are currently no locally designated historic structures located on the property, and the Blue Heron site is not currently located within a local or national Historic District. However, a report by George Kramer of Heritage Research Associates indicates that some of the buildings located on-site are contributing historic structures, which means they possess historic elements and may be eligible for the national register and accompanying historic preservation tax credits.[16]

Photo Credit: Clackamas County Historical Society

Because structural evaluations are currently underway and visioning for the site has yet to occur, it is too early to predict the number or size of buildings that may be preserved on site. Any historic preservation that occurs will contribute to job creation associated with the site.

Due to the labor intensity of rehabilitation and because construction jobs are generally well paid, the local economic impact of historic preservation is significantly greater per amount of output than most other sectors of economic activity.[17] The employment multiplier for Maintenance and Repair in the Portland region is 1.99, meaning that for every construction maintenance or repair job, another 0.99 jobs are created indirectly or induced through spending in the local economy. As shown in Figure 7, the jobs created through spending in maintenance and repair were greater than jobs created through new construction – 6.3 per million dollars versus 5.6. The wages for those repair jobs are higher than for new construction jobs as well.

Commercial Offices

Office development on the site, assuming it is 30% of total square footage, would amount to about 200,000 to 400,000 square feet. The Energy Information Administration periodically surveys buildings operators to determine their energy use, among other data. The most recent survey shows that offices held an average of one worker for every 434 square feet.[18] Using this figure, the number of office jobs that could exist in 200,000 to 400,000 square feet of commercial office space is 433 to 927.

Table 12. Estimated Office Employment

Scenario	2 to 1	3 to 1	4 to 1
Office Space (sf)	187,831	301,871	402,494
Employees (one per 434 sf)	433	696	927

Source: Energy Information Administration

The type of industry or company that locates offices on the site will determine the total economic impact of those jobs. Multiplier effects in the Metro region (Clackamas, Multnomah, and Washington Counties) range from 1.19 to 2.82, meaning that the total impact (direct, indirect, and induced jobs) is 1.19 to 2.82 times the number of direct jobs.[19] Table 13 shows the multipliers of various industries that could potentially locate on the site.

Table 13. Job Multipliers of Various Industries in the Metro region (2010)

Industry	Type I Multiplier	Type II Multiplier	Average Income per Job*
Data processing, hosting, ISP, web search portals and related services	1.19	1.54	$ 90,144
Motion picture and video industries	1.29	1.75	$ 32,669
Software publishers	1.44	1.88	$ 101,670
Management of companies and enterprises	1.40	2.10	$ 97,296
Management, scientific, and technical consulting services	1.33	2.12	$ 50,966
Environmental and other technical consulting services	1.32	2.16	$ 49,133

Source: IMPLAN. Type I multipliers include direct and indirect jobs; Type II multipliers include direct, indirect and induced jobs. *Income per job applies to direct jobs only.

Many of the industries in Table 13 represent target clusters determined by Clackamas County, meaning they are sectors in which the County aims to foster growth through firm expansion and attraction. Some of the target clusters, listed on page 8, are not appropriate for the Blue Heron site – such as wood product manufacturing and greenhouses and nurseries. Others, however, could be a good fit for the site's downtown location and size. For example, creative firms in the film and media production or business services industries could be attracted by the site's location next to Willamette Falls and Oregon City's historic downtown.

Retail

Retail will likely include retail stores, restaurants, and personal services businesses. According to the Energy Information Administration, the average retailer has one worker for every 1246 square feet, and food services establishments have one worker per 528 square feet.[20] Assuming that 87,000 to 121,000 square feet of overall retail space is split evenly between these two uses, 118 to 163 direct retail jobs will be created.

Tourism-related Services

Jobs related to tourism could be located on and off the site. Table 14 shows some industries that are part of the tourism sector, their multipliers, and average income levels. If the site attracts between 330,000 to one million visitors, the impact of their spending will create between 300 to 900 jobs in these industries.

Table 14. Job Multipliers of Tourism-sector Industries in the Metro region

Industry	Type I Multiplier	Type II Multiplier	Average Income per Job*
Retail Stores - Clothing and clothing accessories	1.45	2.02	$ 22,860
Retail Stores - Sporting goods, hobby, book and music	1.35	1.94	$ 20,698
Retail Stores - Miscellaneous	1.36	1.94	$ 15,918
Museums, historical sites, zoos, and parks	1.43	1.92	$ 36,426
Hotels and motels, including casino hotels	1.48	1.96	$ 24,156
Food services and drinking places	1.41	1.90	$ 19,017

Source: IMPLAN. Type I multipliers include indirect jobs; Type II multipliers include indirect and induced jobs. *Income per job applies to direct jobs only.

Residential Property Management

With 188,000 to 400,000 square feet of residential space, 228 to 489 units can be constructed. A study conducted for Metro regarding residential development in downtown Hillsboro estimated that four jobs would be created for a 71-unit building, including leasing agents and property management occupations.[21] To be more conservative, this report assumes four employees for every 100 units. Therefore 10 to 20 direct jobs would be created, depending on the development intensity.

Public Park Management

Maintenance of open space will be required for any public parkland on the site. If public facilities are built, such as a museum, historical center, or park offices, additional jobs will be created to staff these services.

It has not yet been determined which public agency would be responsible for managing the property should it be acquired and developed into open space. However, Oregon City's Parks and Recreation Department can be useful in estimating the cost of management. Oregon City's Budget shows that there were 5.8 Full-Time Equivalent (FTE) employees in parks maintenance in 2011-2012, responsible for 300 acres of parks, amounting to about 52 acres per FTE staff. Open space on the Blue Heron site will most likely be no more than 11 acres, because half the site is assumed to be private development. Thus, the maintenance

staff required would be less than one full-time job. Staff for programming and administration will also be required, but it is too early in the development process to make estimates.

Caveats and Limitations

The IMPLAN input-output model results include both part and full time jobs. The jobs figures reported from IMPLAN are not considered Full-Time Equivalent jobs.

Estimates of office and retail job creation may not actually reflect "new" jobs – many times firms relocate offices and simply move jobs from one place to another. While there is still a local benefit, jobs moved from another part of the country, region, or state to the Blue Heron site would not constitute an overall societal benefit. Many local economic development agencies recruit firms from other locations even though more overall value is gained through true creation of jobs. The Willamette Falls partnership can attempt to make jobs on the site new jobs rather than relocated jobs by seeking out tenants that are expanding or growing their business.

Estimating the impact of tourism on jobs is controversial in some respects. Especially for large events that draw tourists, some economists criticize the use of multipliers. Large events can include workers from outside the area earning some of the money, and inflated hotel rates can become profits for out-of-state corporations, not part of the local economy. Victor A. Matheson, an economist at the College of the Holy Cross, was quoted in another study saying "Unless you have local owners, there is no reason to expect that money to be spent in the local economy."[22] This sentiment is also highlighted in a report by Civic Economics on retailers in Austin, Texas. Civic Economics examined the impacts of a national chain bookstore and locally-owned, independent bookstores. It found that three times more money stays in the local economy for the locally-owned bookstore.[23] The IMPLAN model assumes that industry purchases (purchases of supplies and materials by businesses that lead to indirect job creation) are made locally when possible. Increasing the number of locally owned businesses is certain to increase the multiplier effect.

Large events can also detract from everyday public use of the site. The events at Tom McCall Waterfront Park in Portland, while contributing greatly to the economy, close off parts of the park for many weeks during the summer. Thus the spending of local residents, who may avoid the area during large events, will be reduced.

Impact Summary

Table 15 summarizes total direct jobs created from site development and operations, which ranges from 1,124 to 2,222 depending on development intensity. Employment multipliers from IMPLAN show that the direct jobs could lead to just as many indirect and induced jobs as there are direct jobs, effectively doubling the impact. An increase of 1,124 jobs in Oregon City represents an eight percent increase in the number of jobs, and an increase of 2,222 would increase jobs by about 17%. Direct and induced jobs would be spread throughout the region.

Table 15. Direct Job creation summary

Scenario	2 to 1 FAR	3 to 1 FAR	4 to 1 FAR
Construction Jobs	563	848	1,112
Office Jobs	433	696	927
Retail Jobs	118	136	163
Property Management Jobs	10	15	20
Total direct jobs	1124	1695	2222

Source: IMPLAN and EIA.

Fiscal Impact

Using the estimates for jobs in construction, office, retail, and residential property management, over 2200 direct jobs could be created through this project, generating $4.6 to $9.1 million in income taxes per year. This does not include any tourism related jobs on or off the site, or the indirect or induced jobs that will be created.

Table 16. State Income Tax Revenue resulting from direct jobs on site

Scenario	2 to 1 FAR	3 to 1 FAR	4 to 1 FAR	Estimated Income per job
Construction income	$34,465,287	$51,922,716	$68,053,296	$61,198
Office income	$18,826,351	$30,256,635	$40,342,181	$43,500
Retail income	$3,009,980	$3,473,053	$4,167,664	$25,600
Property Management income	$59,000	$88,500	$118,000	$5,900
Total income	$56,360,617	$85,740,905	$112,681,141	
Income tax revenue*	$4,576,482	$6,962,162	$9,149,709	

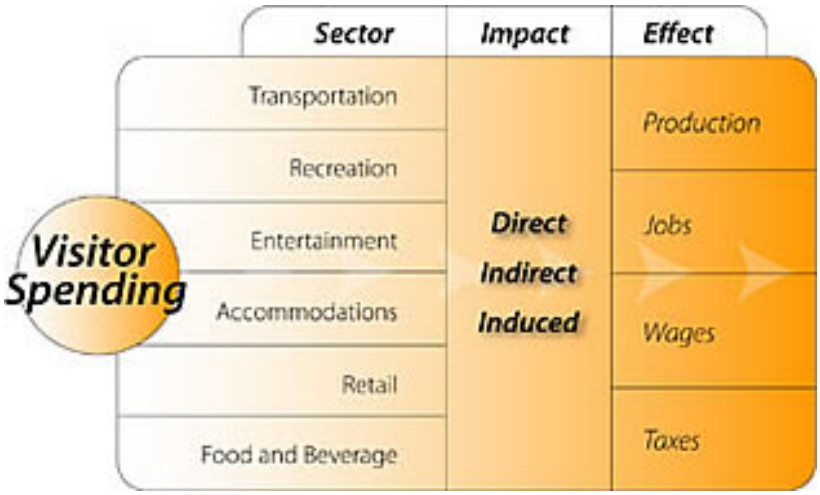
Source: IMPLAN. *Income tax rate of 8.12%

While income taxes will be generated from indirect and induced jobs too, without wage levels it is difficult to determine the overall income tax revenue impact. However, multipliers show that the direct jobs could lead to just as many indirect and induced jobs as there are direct jobs. If incomes for these jobs are similar to incomes for direct jobs, one can assume that total income tax revenue from direct, indirect, and induced jobs would be twice as much as shown in Table 16.

TOURISM POTENTIAL

The Willamette Falls site has the potential to be a significant tourist destination in Oregon. Because of its historical and cultural significance, natural beauty, and the recreational potential of the site, the opportunities for tourism development are abundant. Developing the site as a destination will have a significant positive impact on Oregon City and Clackamas County businesses and residents. The following pages contain statistical support for this claim.

Tourism produces economic benefits for communities in the form of jobs, income, and property taxes. Tourism directly supports businesses in service industries like restaurants and bars, hotels and motels, recreation and entertainment, transportation, and retail. In turn, these industries purchase services, supplies and materials in the local economy, which constitutes the indirect impact of tourist spending. Lastly, employees in all of these industries receive wages and spend those wages in the local economy, creating an "induced" effect. The direct, indirect, and induced effect of spending in the tourism industry is a significant part of the economy in the greater Portland region.



Source: Tourism Economics (www.tourismeconomics.com)

Currently, the tourism industry accounts for close to two percent of GDP in the state of Oregon, supporting 92,400 direct jobs (134,500 total jobs). Table 1 shows a summary of the impact of tourism for the state, the region, and the County.

Table 1. Annual Tourism Industry Impacts

Place	Overnight Visitors	Total Tourist Spending*	Direct Jobs	Estimated Total Jobs
Clackamas County	2.36 million	$399 million	5,250	6,646
Greater Portland Region	7.3 million	$2.7 billion	26,970	39,087
State of Oregon	24.6 million	$7.8 billion	92,400	134,500

Source: Travel Oregon, Travel Portland, Dean Runyan Associates. Figures are for most recent available year. *Total spending of all visitors, both overnight and daytrippers. Does not include airfare or travel to/from destination.

Cultural and Heritage Tourism

The National Endowment for the Arts defines cultural and heritage tourism as "travel directed toward experiencing the arts, heritage, and special character of a place."[24] As an historic and culturally significant site, the Willamette Falls project is likely to attract heritage tourists from Oregon, the rest of the United States, and even other nations. Oregon City and its surroundings are home to many historically significant sites, stories, and traditions. For the last several years, a broad group of stakeholders called the Willamette Heritage Area Coalition has been working to obtain official designation from the federal government as a National Heritage Area. This status would literally put Oregon City on the map and increase heritage tourism to the area. Historical and cultural aspects of the site that could appeal to a wide audience include:

- Oregon City is considered the End of the Oregon Trail
- Oregon City was the first incorporated city west of the Rocky Mountains
- The Willamette River is a designated Heritage River
- Willamette Falls was the site of the first long distance commercial electric power transmission (to Portland) in 1889
- Willamette Falls was a tribal gathering place for several native tribes

A 2009 national study revealed that 78% of all U.S. leisure travelers participate in cultural and/or heritage activities while traveling, including visiting historical sites, art museums, galleries, state or national parks, attending art fairs and festivals, dance performances, and

historical reenactments, and exploring urban neighborhoods.[25] The study also found that cultural and heritage travelers spend an average of $994 per trip, contributing more than $192 billion annually to the U.S. economy. A separate 2003 study found that cultural tourists spend more money than other travelers, have longer-duration trips, and are more likely to stay in a hotel or motel.[26]

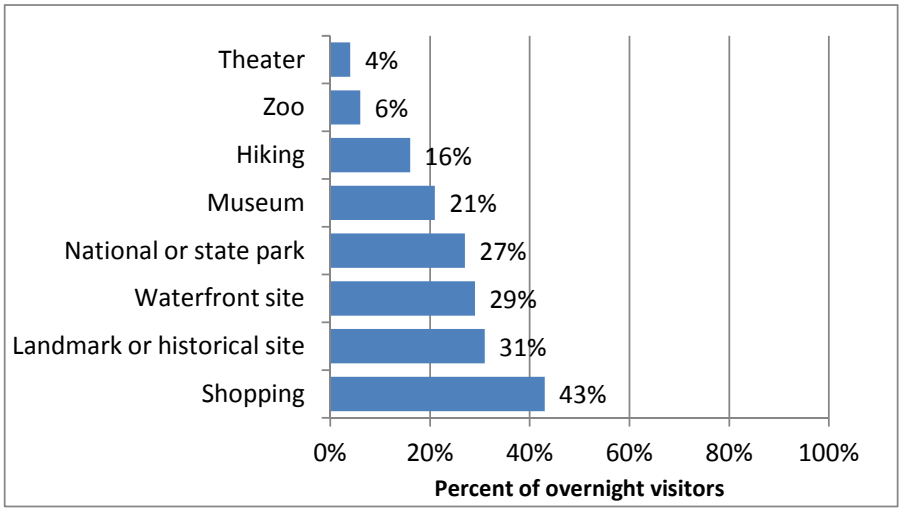
> "The vast majority of (cultural and heritage) travelers (65%) say that they seek travel experiences where the 'destination, its buildings and surroundings have retained their historic character.'"
>
> -The Cultural and Heritage Tourism Study, 2009

Tourism in the Portland Metro Region

The Portland Metro, defined as the three-county Metro region for the purposes of this analysis, relies on tourism for 2.6% of total jobs.[27] About 60% of the tourism industry jobs in the Metro region are in the food service or accommodations industries. The ratio of overnight visitors to resident population is 5:1.[28]

A 2009 survey showed that 31% of overnight visitors on leisure trips visited a landmark or historical site, 29% visited a waterfront site, 27% visited a national or state park, and 21% visited a museum while they were in the Portland area. These were the four most common activities after shopping, which was the top activity for tourists in the Portland region. Figure 4 shows more of the various activities enjoyed by overnight visitors.

Figure 4. Activities of Overnight Visitors to the Portland region, 2009



Source: Longwoods International, 2009. Many activities are omitted from this graphic, including fine dining, boating, gambling, etc.

Visitors to the Metro region spent $202 million on arts, entertainment and recreation in 2011. This spending supported 3,000 jobs with earnings of $68 million. Slightly more than one-half of this visitor spending ($107 million) was on cultural tourism, including theater, music, and art and science exhibits. Other recreational activities ($95 million) include cruises, tours, biking, hikes and sporting events.[29]

Tourism in Clackamas County

In Clackamas County, tourism consists of mostly outdoor activities at Mt. Hood and other natural areas in the county. Of all overnight visitors to Clackamas County in 2011, 593,000, or 25%, stayed in a hotel or motel, while the remainder stayed in the home of a family or friend or at a campground.[30]

Clackamas County Tourism by the Numbers

Amount of visitor spending that supports one job	$78,390
Employee earnings generated by $100 in visitor spending	$28
Local & State tax revenues from $100 in visitor spending	$4.80
Ratio of overnight visitors to resident population	6:1
Tourism industry jobs as a percentage of total jobs	2.4%
Average overnight trip spending, per person	$129
Average length of trip for overnight visitors	2.9 nights

Source: Dean Runyan Associates, 2011

Table 2. Visitor Spending in Clackamas County, 2011

Commodity	Total Annual Spending	Percent of Total
Accommodation	$ 60,600,000	15%
Food/drinks	$ 153,000,000	38%
Transportation	$ 55,300,000	14%
Recreation and Entertainment	$ 45,300,000	11%
Retail goods	$ 84,400,000	21%
TOTAL	$ 398,600,000	100%

Source: Dean Runyan Associates

Because only 25% of overnight visitors in Clackamas County stay in hotels and motels, spending on accommodations is just 15% of total visitor spending, as shown in Table 2. The majority of spending is on food and drinks, both from stores and restaurants.

Tourism in Oregon City

The Willamette Falls site creates an opportunity to weave together multiple destinations in the Oregon City area. These various sites are connected through their history.


Source: IgoUgo.com

Source: americaslibrary.gov Photo credit: Gary Poush


Source: nps.gov


Source: 52perfectdays.com.
Photo credit: Tamara Muldoon

Frequented Oregon City attractions and destinations include the Municipal elevator (upper left), which received 184,700 rides in 2011[31], the now-closed End of the Oregon Trail Interpretive Center (upper right), which attracted over 30,000 visitors in 2008[32], the McLoughlin House (lower left), which had over 7,000 visitors in 2008[33], and the McLoughlin Promenade, (lower right).

Other destinations in the City include:

- Museum of the Oregon Territory
- Ermatinger House
- Clackamette Park
- Rose Farm Museum
- Stevens Crawford Heritage House

RVs at Clackamette Park. Source: Oregon City

Clackamette Park, another riverfront park located at the confluence of the Willamette and Clackamas Rivers, is a popular site for fishermen, picnicking, camping, and everyday recreational activities. Clackamette Park is relevant to the Willamette Falls project due to its location just over one mile from the north end of the Blue Heron site, presenting the opportunity to physically connect the two sites on land or through water trails. In the past year the park received about 2,850 overnight recreational vehicle visits.[34] Last August, which is the peak month for park usage, there were 25 picnic shelter reservations for the park's two shelters, according to the Oregon City Parks and Recreation Department. The park is adjacent to Sportcraft Landing Moorages, a marina that offers boat storage and canoe and kayak rentals.

The US Secretary of the Interior recently named the Willamette River a National Water Trail. This designation increases the visibility and publicity of the River. Having the federal designation could also make it easier to secure funding to improve or increase access points to the river and to foster river tourism.

Tourism at the Site

Any new tourist activity at Willamette Falls could incorporate historical, recreational, or educational aspects of the site. In addition to the Oregon Trail theme, cultural and educational aspects of the site could center around the fact that the Confederated Tribes of the Grand Ronde, Siletz, Umatilla, Warm Springs, and Yakama Indian Nation recognize Willamette Falls as a sacred gathering place of high cultural significance. Boaters who paddle near the Falls can see Native American carvings in the rock face surrounding the falls.

There is also opportunity to put a spotlight on the Portland General Electric dam at the Falls, which uses innovative environmentally friendly technology to protect wildlife.

The Falls area is also a popular place for natural recreation, including boating, kayaking, and fishing. The scenic view of the Falls from various areas of the site offers opportunity for the development of viewpoints, and visitors could be taken closer to the Falls by boat.

There is also great opportunity to hold events and festivals on the site, especially if there will be a considerable amount of open space.[35] One festival already part of Oregon City is the Willamette Falls Festival, a three day event planned for October 2012. Events in Oregon City already attract thousands – 3,500 at the 2012 First City Celebration and over 1,000 at the last Lock Fest in 2010.

> Tom McCall Waterfront Park in Portland holds several large festivals each year, attracting **1.5 to 2 million people** in total for the five largest summer festivals. Many of the attendees are from out of town, and the economic impact of the events is estimated at **$65 to $105 million** annually.
>
> - Jillian Daley, The Oregonian, 2012

Economic Impacts of Tourism at the site

The number of visitors the site attracts will depend on the attractions and activities that are offered. The estimates in this report assume the presence of public access to Willamette Falls along with historical and cultural interpretation of some kind. The following table shows annual visitor counts for similar or nearby destinations. The average number of annual visitors for these 12 destinations is 658,476. The Crown Point Vista House in the Columbia River Gorge offers an especially good comparison for the Blue Heron site. It has historical significance, scenic views, free entry, and is located about 30 minutes from downtown Portland. The Vista House receives an estimated 775,000 to 1,290,000 visitors annually, the midpoint of which is about one million.[36]

Table 3. Visitor Statistics for Similar Tourist Destinations in Oregon.

Destination	Location	Number of Annual Visitors
Oregon Historical Society	Portland, OR	40,000
Oregon Trail Interpretive Center	Baker City, OR	59,105
Oxbow Park	Clackamas County, OR	215,265
Portland Japanese Garden	Portland, OR	223,000
Lewis and Clark State Park	Astoria, OR	225,846
Evergreen Aviation and Space Museum	McMinnville, OR	331,000
Oregon Aquarium	Newport, OR	457,500
Portland Saturday Market	Portland, OR	750,000
Crown Point Vista House	Columbia River Gorge	1,000,000
Bonneville Fish Hatchery	Columbia River Gorge	1,000,000
Timberline Lodge (excluding skiers)	Mt. Hood	1,600,000
Multnomah Falls	Columbia River Gorge	2,000,000
AVERAGE	-	658,476

Source: Each destination's management organization provided the most recent year's data, which in most cases is 2011.

To estimate visitor spending impacts, figures in Table 3 are used for low, medium, and high scenarios for the Willamette Falls site. The Vista House visitor level is considered "high," the average for all 12 destinations is "medium," and the Evergreen Aviation and Space Museum is considered "low." Visitors to Willamette Falls will be comprised of both local residents and tourists. While many visitors will be people already visiting the region who add this attraction to their itinerary, some will be people who would not have visited the area if not for the Willamette Falls attraction.

Assumptions and estimates must be used in order to predict economic impacts of a theoretical tourist destination. The average overnight visitor proportion for all National Parks in the United States is 30%.[37] Using this figure, it can be reasonably assumed that as an established destination, the site has the potential to attract between 100,000 and 300,000 overnight visitors. Impacts of differing visitor levels are shown in Table 4.

Table 4. Potential Annual Impacts of Low, Medium and High Overnight Visitor Levels

Visitor Level	Low	Medium	High
Total Visitors	331,000	658,000	1,000,000
Number of Visitors on Day Trips (70% of total)	231,000	458,000	700,000
Number of Visitors on Overnight Trips (30% of total)	100,000	200,000	300,000
Total Visitor Spending($129 per overnight trip, $49 per day trip)	$24,219,000	$ 48,242,000	$73,000,000
Visitor Spending that Supports One Job	$ 78,390	$ 78,390	$ 78,390
Jobs Supported by Visitor Spending	309	615	931

Source: Dean Runyan Associates.

While day trippers do not spend as much as overnight visitors – the statewide average was about $49 per person in 2009[38] - the impact on retail, restaurants, and entertainment and recreation venues is significant. Table 5 shows the number of people living within reasonable driving times of the site.

Table 5. Demographics of local market

Driving Time from site	Population	Annual population growth rate	Median income
30 minutes	1,632,626	1.07%	$ 53,224
60 minutes	2,509,070	1.05%	$ 53,583
90 minutes	2,940,558	1.03%	$ 52,861

Source: ESRI Business Analyst

Over 1.6 million people live within just a half hour drive of the site, and almost three million people live within a 90 minute drive. On average, each household in the market area spends more than $3,000 per year on recreation and entertainment and almost $2,000 on travel,[39] totaling over $2 billion on travel and $3 billion on entertainment and recreation. As a tourist destination, the site would capture a portion of this spending. In fact, studies show that an increase in local outdoor recreational resources can spur local residents to switch from other activities or from recreational activities outside the local area, which leads to net new spending on recreation and related retail and entertainment.[40]

When more information is known about the vision and master plan for the site, an analysis similar to Metro's study of the Oregon Convention Center (OCC) can be completed. This will show a more accurate picture of the economic impact of tourism at the site. For example, the OCC study, published in January of 2012, examined the operating expenses, attendee spending, and spending by sponsors and exhibitors for each event. This information was then used to determine the number of direct jobs created and their indirect and induced impacts to a much higher degree of accuracy than is currently possible for the Blue Heron site.

Fiscal Impacts of Tourism

Oregon does not collect sales tax, so most fiscal benefits will come from hotel room taxes and income taxes.

Hotel Room Tax. The hotel room tax, known as the Transient Occupancy Tax, applied to each hotel and motel room in the state. In Oregon City the total tax applied is 11% - one percent goes to the state of Oregon, 6% goes to Clackamas County, and 4% goes to Oregon City, with revenues generally used for tourism development. In Oregon City, the Oregon City Civic Improvement Trust awards funding to the Trolley, the Antique Fair, and the summer concert series, among other programs. In Clackamas County, the Tourism Development Council uses room tax revenues to advertise events and attractions in the County, including distributing brochures and building promotional websites.

In Fiscal Year 2010-2011, Oregon City received $51,559 from the two in-town accommodations - Best Western Rivershore Hotel and Clackamette RV Park. Clackamas County received $2,683,940 in the 2010-2011 Fiscal Year. The State of Oregon collected over $11 million from room tax receipts in the same year.

Overnight tourists that come to Clackamas County to visit the Willamette Falls site could be a large source of revenue. Travel surveys show 25% of overnight stays in Clackamas County are hotel and motel stays.[41] Therefore 100,000 overnight visitors will mean about 25,000 new overnight trips. At 2.9 nights per trip, that comes out to 72,500 stays, and if one assumes two people per room that becomes 36,250 room-nights. Depending on the room rate, that brings the following revenue:

Table 6. Revenue from Hotel Room Taxes, based on 100,000 overnight visitors

Room Rate	$80 per night	$100 per night
County Revenue (6%)	$174,000	$217,500
State Revenue (1%)	$29,000	$36,250
Oregon City Revenue (predicted)*	$3,306	$ 4,133
Total	$206,306	$257,883

*Due to the existence of only two accommodation businesses in Oregon City, most of the stays will occur outside of the City limits. Oregon City typically receives about 1.9% of what Clackamas County receives each year.

The predicted tax revenue for Oregon City is 1.9% of the total County revenue, a conservative estimate – visitors will likely want to stay closer to the Falls in the City. Therefore more of them will stay in Oregon City if rooms are available, so the revenue is likely to be higher than predicted. If more hotels or motels are opened in Oregon City, the revenue will also increase.

Income Tax. Income taxes from income from jobs in the tourism industry will provide revenue for the State. Table 7 shows the taxes collected from the low, medium, and high overnight visitor scenarios.

Table 7. Income tax revenues from overnight visitor spending

Number of Overnight Visitors	100,000	200,000	300,000
Income Generated	$4,239,000	$8,478,000	$12,717,000
Estimated State Income Tax*	$344,207	$688,414	$1,032,621

*Based on effective rate of 8.12% (2011-2012 effective rate on income of $26,000)

PROPERTY VALUE IMPACTS

Property value impacts include both on-site and off-site impacts. The current assessed value of the site, zones industrial, is about $1.6 million, resulting in about $28,000 in annual property tax. Using the assumptions for private development in the Job Creation section in this report and assuming no change in land value of the site, the property could have an assessed value of $44 million to $89 million (based on 2:1 to 4:1 FAR scenarios) in the future. These figures are based on building assessed value per square foot as Class A office

properties in Lake Oswego and mixed-use residential properties in southeast Portland. Under these assumptions, property tax revenue generated from the site would be $800,000 to $1.6 million per year at current tax rates, depending on the Floor Area Ratio.

Properties surrounding the mill are impacted by what happens on the site. Property values can increase or decrease depending on the condition of nearby properties. Residential property values in particular are higher in areas with more parks, amenities, and fewer nuisances like noisy or vacant industrial sites. Property value increases in the case of the mill site will come from the removal of the unused industrial structures, the creation of new amenities and open space, significant view enhancements to adjacent properties along the bluff, and improved waterfront access and connection to downtown.

Disamenity value of the site

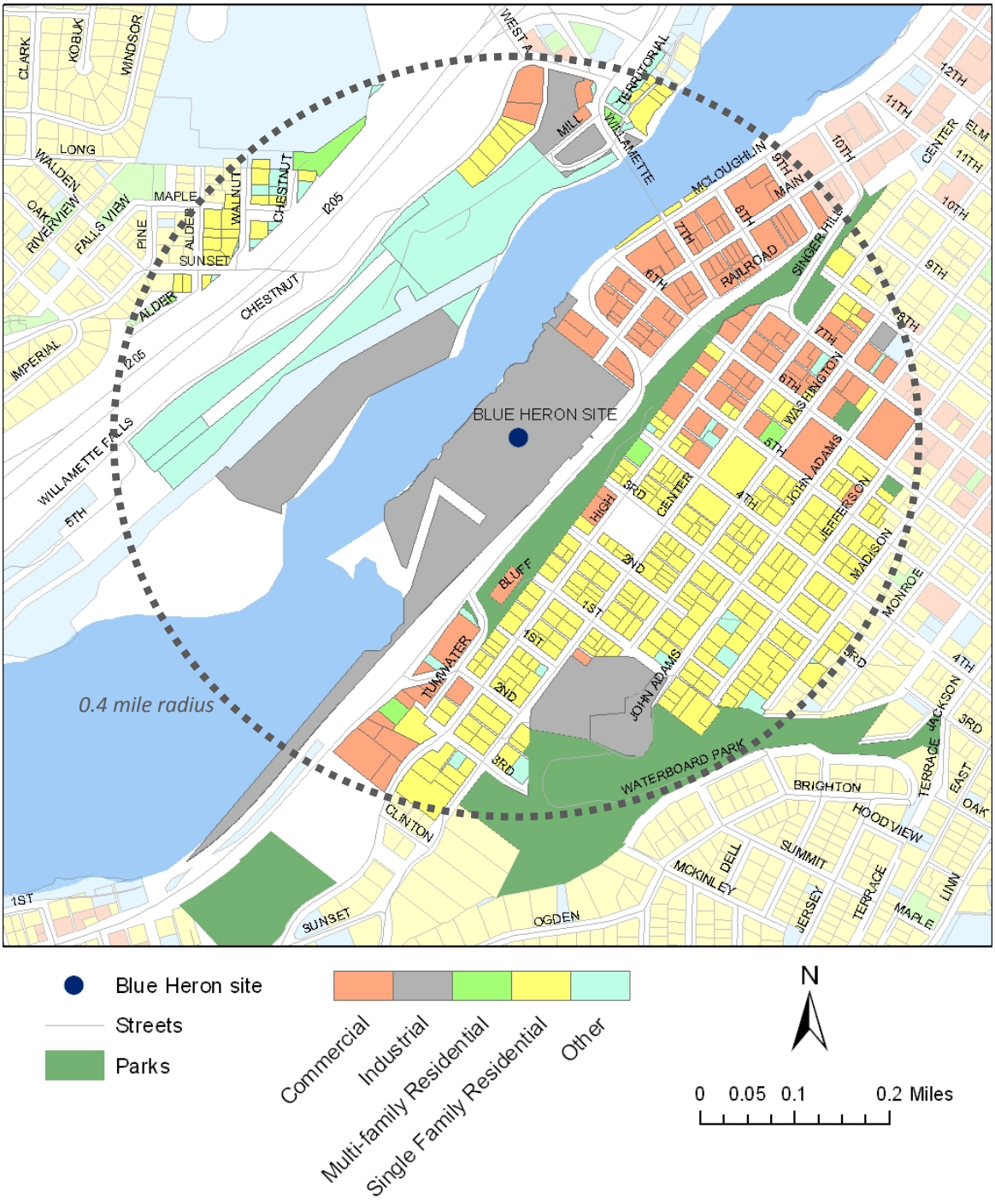
Disamenity is defined by the Oxford dictionary as "the unpleasant quality or character of something." It reflects the disadvantage conferred on a location due to some negative characteristic. Former industrial sites, vacant buildings, and derelict structures are disamenities that can have negative impacts on property values in their neighborhoods, especially for the properties within view. Removing these "eyesores" from the mill property will likely reverse the disamenity value currently felt in Oregon City and neighboring West Linn. The Environmental Protection Agency has documented property value improvements of two to three percent within a one-mile radius of a cleaned up brownfield, even without putting the land into a new use.[42]

A study conducted by the National Association of Homebuilders shows that single family homes near abandoned buildings sell at nearly **11% less** than the average home. Even the existence of industrial uses has an impact – the same study found a **7% reduction** in price for homes near industrial uses.

- "On the Waterfront: Still the Most Valuable Location." 2006.

An analysis of property values around the former mill site was conducted for this report. It is uncertain how close to the site a property has to be to be impacted, but past studies have examined properties within ¼ to ½ miles of a selected area. For the purposes of this analysis, 0.4 miles from the center point of the site was used, in order to include enough properties to obtain statistically significant results. This includes 520 separate properties on 274 acres. Figure 6 on the following page shows the existing land uses of those properties.

Figure 6. Land Use of Properties within 0.4 miles of Blue Heron site



A regression, or hedonic, analysis of these properties in Oregon City and West Linn shows that close proximity to the site (being within 1000 feet), all else equal, reduces home values by an average of 7.7%. For residences between 1000 and 1500 feet of the site, the mill reduces value by 0.9%. Commercial properties are also affected – see Table 17 for details and Appendix C for complete regression results and methods.

Table 17. Property Value impacts of proximity to the former mill site

	Negative Impact per property	Number of properties	Total negative value
Within 1000 feet	$ (15,647.70)	47	$ (735,440)
1000 to 1500 feet	$ (2,623.19)	95	$ (249,203)
Commercial within 1000 feet	$ (11,736.00)	92	$ (1,079,712)
Total			*$ (2,064,355)*
Property Taxes Lost per year			*$ ($36,952)*

Source: Regional Land Inventory System, Metro.

Reduced property values not only hurt property owners but also result in reduced property tax revenues for Oregon City, Clackamas County, and numerous other taxing districts. Last year, an estimated $36,952 was lost in property tax revenue due to the presence of the former mill site.

Recent home sale prices show similar results. In the last 9 months, properties within about 0.5 miles of the site sold for an average of $176,000 ($166,000 median).[43] Properties between 0.5 and one mile of the site sold for an average of $240,000 ($188,000 median). While there are many reasons for the price differences, this demonstrates that higher-value properties are more prevalent farther away from the site.

Potential amenity value impacts of the site

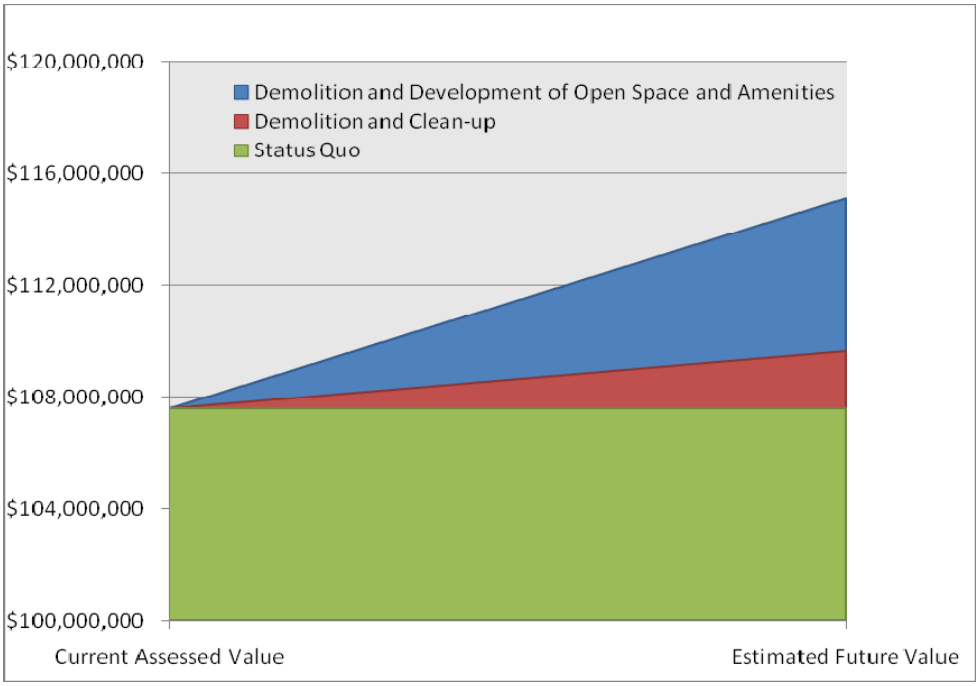
The current total assessed value of the taxable properties within 0.4 miles on the site is $107,586,009.[44] These properties paid $1,946,228 in property taxes in 2011. Research demonstrates that proximity to amenities like services, parks, and open spaces can increase property values by 3 to 20%.[45] For example, a study in The City of Portland found that being within 400 feet of open space increased a home's sale price by $2,700 to $3,500.[46] In a Philadelphia study, there was a 7.2% increase in the first year in property values within a quarter mile of an abandoned property that was converted to open space, and a 5.2% annual increase in property values thereafter. There was even an "announcement effect," of 0.7%, whereby properties appreciated when news of conversion was made public.[47]

Another example of this phenomenon is found in downtown Seattle, where studies predict a 5 to15% increase in surrounding property values resulting from removal of the Alaskan Way Viaduct.[48] The Viaduct is a highway along Puget Sound that limits waterfront access and views. The highway is slated to be replaced with trails and open space along the waterfront.

If a conservative estimate of 5% average increase in property values is predicted for surrounding mill site properties, taxable value will increase by about $5,500,000. While this represents almost $100,000 in property taxes, Measure 50 limits on assessed value increases will reduce the fiscal benefit considerably. Figure 7 summarizes the property value impacts for demolition only and for demolition and development of open space on the site, using the 5% estimate. Demolition results in $2,000,000 in value gained, then open

space results in another $5,500,000 increase. These estimates are further supported by other research. For example, one study projected that cleaning a brownfield in Kenosha, Wisconsin, would result in a 1.7 to 6.2 percent rise in property values, and cleaning it *and* turning it into a park would boost home values by 3.4 percent to 10 percent.[49]

Figure 7. Potential Change in Property Value of Surrounding Properties



Source: Future values are based on the regression analysis results of $2,064,355 in negative value regained and 5% estimated increase for properties within 0.4 miles of the site.

The size, type, and location of open space determines the impact it can have on property values. Increases are maximized for residential and office properties, while industrial and retail uses are affected little by proximity to parks. Parks with athletic fields or other intensive uses can have a negative impact - but those with passive recreation uses such as trails, landscaping, and playgrounds are positive. In the areas studied, most of the positive impact on values occurred within an average 600 feet of the park.[50]

Programming has also been found to be important for parks to have a positive impact on property values. Programming keeps eyes on the park and high levels of activity, which ensures the park does not become a disamenity by attracting crime or other undesirable uses. Anecdotal and empirical evidence shows that homes and condo units with direct park access or views sell faster than others. Many developers are more attracted to locations with existing park amenities.[51]

Historic Preservation and Property Values

It is widely established that individual properties with a historic designation and properties within a historic district experience increased property values.[52] In Florida, at least 15 of 18 cases studied showed property in the historic district appreciating more than the non-historic comparison neighborhoods. [53] Researchers found no instances where historic designation depressed property values. There is evidence that shows adjacent properties benefit from historic preservation as well. In Cleveland, Ohio, loans made by the Cleveland Restoration Society to rehabilitate historic homes had a positive impact not just on the houses that received the loans, but also on property values of their neighborhoods. In the neighborhoods studied, the houses that received loans had higher rates of appreciation than properties not near a rehabilitation project.[54]

It can be expected that preservation of historic buildings or other structures on the site will add to the positive impacts on Oregon City, increasing nearby property values. New construction on the site could be more attractive and valuable due to its location among historic buildings.

1927 image of Paper Mill No. 4, which still stands on the site. Photo credit: Clackamas County Historical Society

DOWNTOWN REVITALIZATION IN OREGON CITY

While it has made great strides in recent years, downtown Oregon City is not a true 18-hour, live-work urban downtown. Over 1,000 people work downtown, according to Main Street Oregon City. The thriving Main Street program has helped establish over 40 new businesses in downtown in the past few years. Façade improvements and streetscaping work are also underway. Desirable features of downtown include the riverfront setting, numerous restaurants and an attractive historical background. While all this contributes to a vibrant downtown, progress is limited because no residential uses exist in the historic downtown area**. A recent development opportunity study by Urban Land Economics and Vallaster Corl Architects concluded that market rents in Oregon City are not yet high enough to support the costs of urban housing development.**[55] There is also not a major employer located downtown such as Clackamas Community College or a hospital to attract future residents.

Source: Hasson Realty

Accordingly, there are many efforts underway to attract and incentivize new development, especially residential development, downtown. Through Urban Renewal, Oregon City hopes to leverage investment. Two vacant sites downtown are currently being marketed by the City as potential mixed use office or multi-family residential development projects. Oregon City Main Street, through its efforts to increase downtown's attractiveness and draw entrepreneurs, hopes to contribute to an environment in which residential development is financially feasible. The Willamette Falls Funding Strategy report also identifies potential sources of gap financing for development on the site.

Looking further ahead, the regional plan for High Capacity Transit calls for the extension of a light rail line to downtown Oregon City.[56] The extension is identified as a "next phase regional priority corridor" but is not yet funded or scheduled, and likely will not occur for many years. Light rail or other types of high capacity transit in Oregon City will make any new development there more favorable.

The role of the Blue Heron site

The Blue Heron site has the potential to spark redevelopment of other nearby sites in Oregon City by providing a downtown destination. The introduction of additional urban amenities will make the broader downtown area a more interesting and attractive place to live and work; research indicates a stronger mix of urban living amenities will increase achievable rents, and thereby make future projects more economically feasible.

The fact that there are currently no residences in downtown Oregon City makes it difficult for developers to predict the viability of residential development. If developed with mixed use residential units, the Willamette Falls project could establish new market comparables for mixed use development in the downtown area.

Development of the site as a scenic and recreational amenity will make downtown more attractive to both employees and employers. Companies are increasingly sensitive to quality of life aspects of a location.[57] In addition to retaining the existing creative businesses that have recently located in downtown Oregon City, the Blue Heron site could also attract entrepreneurs, knowledge workers, and other companies who place a high value on sense of place and amenities.

> "Knowledge workers prefer places with a diverse range of outdoor recreational activities (e.g., rowing, sailing, cycling, rock climbing) and associated lifestyle amenities. Access to water and water-based recreation is of particular importance to these workers. Knowledge workers prefer regions where amenities and activities are easy to get to and available on a "just-in-time" basis."
>
> - Richard Florida, 2000. Quality of Place and the New Economy

Real Estate Market

Residential. In the Oregon City area, average residential rent per square foot is $0.84; for one bedroom units, $0.91 per square foot.[58] For comparison purposes, average rents in downtown Portland are $1.68 per square foot ($1.77 for one bedroom units), and $0.98 in Lake Oswego ($1.08 for one bedroom units).[59] For new construction or renovation, rents are typically higher. A 2012 study by Civilis Consultants estimated that rent for new units near downtown Oregon City could be $1.25 per square foot.[60]

Table 18. Multifamily residential rents per square foot in selected metro submarkets, 2012

Submarket	One Bedroom	Two Bedroom	Three bedroom	Four bedroom	Average
Downtown Portland	$1.77	$1.39	$1.83	$1.74	$1.68
Lake Oswego/ West Linn	$1.08	$0.96	$0.96	$0.92	$0.98
Hillsboro	$0.99	$0.84	$0.86	$0.85	$0.89
Clackamas/Oregon City	$0.91	$0.83	$0.81	$0.79	$0.84

Source: Norris Beggs and Simpson 2012 Second Quarter Multifamily Report

Residential vacancy rates in Oregon City and throughout the region are extremely low - between two and three percent.[61] Although the low vacancy rate is attractive to lenders, the low rents and lack of comparable properties in the area represent a challenge to developing mixed use residential downtown.

Commercial. Average retail rent for the Portland metro area is $15.77 per square foot per year, and office rent is $20.88. These rates are lower in Oregon City, however - average rent for commercial space in the Oregon City Area is $12 to $17 per square foot.[62],[63]

Table 19. Commercial office rents per square foot in Portland Metro sub-markets , 2012

Market	Average rent	Vacancy
Downtown	$21.68	11%
Lake Oswego/Kruse Way	$24.81	24.2%
Wilsonville	$22.71	30.7%
Milwaukie/Oregon City	$17.08	20.4%

Source: Cushman Wakefield Second Quarter Marketbeat Report.

Class A office space is uncommon in the Oregon City area. Class B office space tends to rent for about $5 less per square foot than Class A space. However, real estate advising company Grubb Ellis predicts that Portland-area demand will remain strong for creative and unique spaces, with some Class B and historic spaces commanding higher rents than run-of-the-mill Class A buildings.[64]

Development Potential

In general, the outlook for real estate in the Portland Metro area is good. Several real estate advising firms, including Cushman Wakefield, cite positive expectations for future development in the Portland area, predicting an increase in development and rents in the next year.[65]

> "Several indicators are suggesting that economic conditions are improving in Oregon. The Portland metro area added 20,000 jobs over the last year increasing the number of jobs by 2.1% according to the U.S Bureau of Labor Statistics. Unemployment in Portland dropped three tenths of a percentage point in second quarter 2012 to 7.9%."
>
> -Cushman Wakefield Marketbeat Report

Favorable Factors

There are several factors at play that will contribute to the potential for development on and around the site and the revitalization of downtown.

Contiguous Acreage. Assembling land is often one of the biggest obstacles to redevelopment. The Blue Heron site is contiguous and under one owner, which makes the redevelopment process easier than situations in which parcels must be acquired from multiple owners.

Waterfront Location. The location of the site of the waterfront creates greater development potential. The National Association of Home Builders (NAHB) estimated that waterfront properties in Western suburban cities command prices 34% higher than the average home, and those near but not on the waterfront command prices 1% higher on average. Access to waterfront on the site could help properties achieve higher rents needed for construction to occur.

Retail Demand. A market analysis of downtown by Marketek, Inc. from 2009 reports that the market area for downtown Oregon City will be home to over 120,000 people by 2014. It also finds a leakage of retail dollars outside of the market area due to limited retail space. Marketek predicts that downtown could capture up to 15% of current and future retail demand in the area, translating to 96,000 square feet of retail space.[66]

Population growth. Regional population is projected to grow to over two million in the next few decades, and Oregon City is expected to increase 56% to 50,000 by 2040. New development will be needed for the additional residents to live, work, shop, and play.

Table 20. Population Growth, 2010 to 2040

Place	2010	2040 projected	Percent Change
Oregon City	32,000	50,000	56%
Clackamas County	380,000	620,000	63%
Portland Region	1,645,000	2,380,000	45%

Source: Oregon Office of Economic Analysis, Metro.

Proximity to Airport. The PDX International Airport is less than a 30 minute drive from the site, making it attractive to both firms and residents.

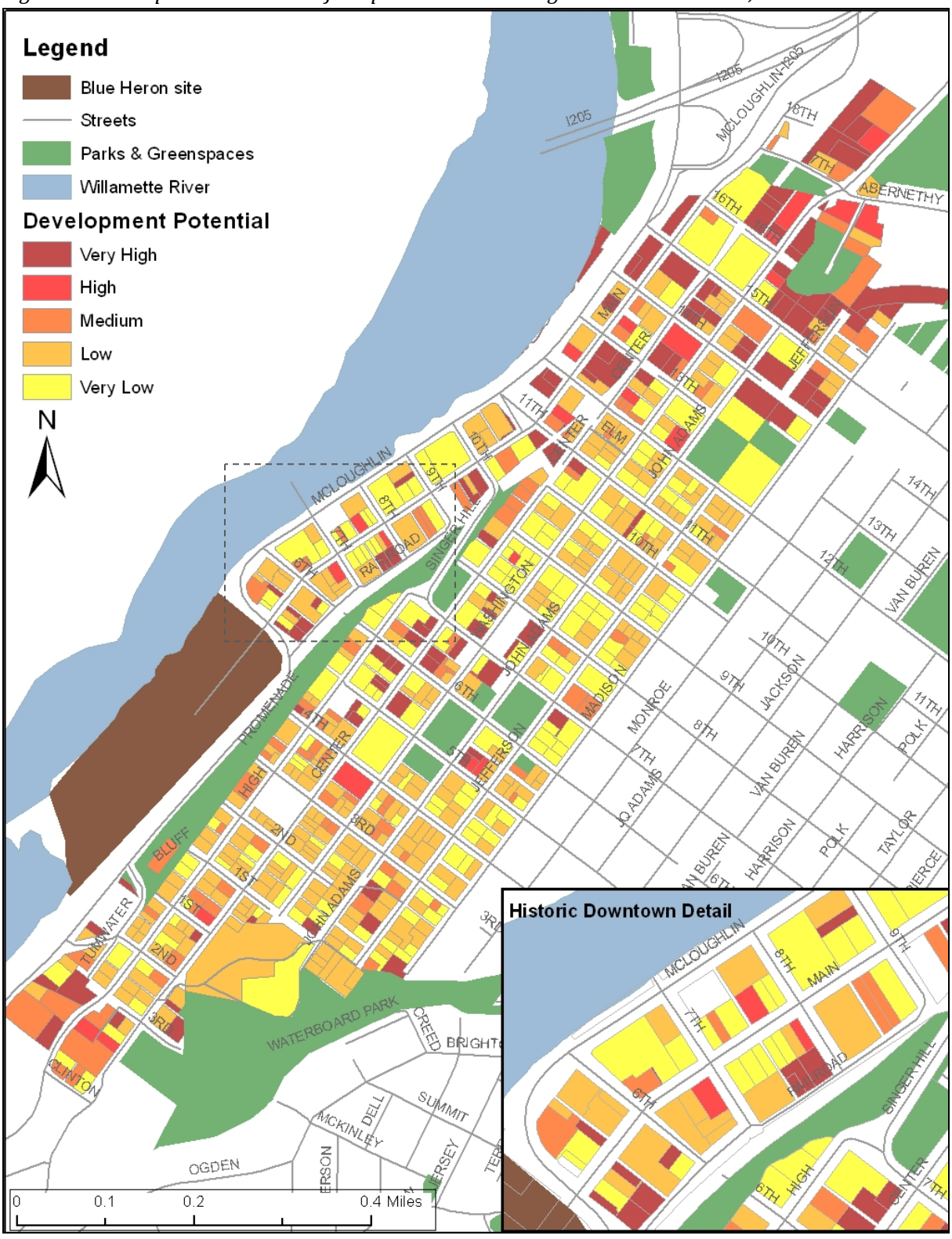
Popularity of urban living. Demand for housing in urban locations is rising, especially among baby boomers and retirees. The site's proximity to downtown is highly advantageous. A recent development in downtown Milwaukie, just up the road from Oregon City, demonstrated that demand for residential units in walkable, urban areas is strong even in untested markets. A development opportunity study by Urban Land Economics/Vallaster Corl Architects states that residential target markets should include both single and two-person working households, along with senior housing. It also suggests that studio apartments have a strong potential market because of their lower price point. One limitation in downtown Oregon city is the existence of the railroad, which reduces potential for residential development along or near Railroad Avenue due to the noise and frequency of trains.

> "Among property sectors, everybody wants apartments. Living smaller, closer to work, and preferably near mass transit holds increasingly appeal as more people look to manage expenses wisely. Interest cools on offices, especially suburban office parks: more companies concentrate in urban districts where sought-after generation-Y talent wants to locate in 24-hour environments."
>
> - 2012 ULI Emerging Trends in Real Estate

Development Potential of Surrounding Properties

One basic method for determining development potential is to calculate the ratio of site improvements to land value.[67] A recent evaluation by the City of Portland considered properties with a building value, or "improvement" value to land value ratio of 50% or less to be possibly redevelopable.[68] Parcels with this ratio are considered underutilized and more likely to redevelop than parcels with a higher ratio. In the map shown on the next page, high development potential is defined as a 50% ratio, and very high potential is defined as a ratio of 25%. The properties shown on the map encompass 147 acres, excluding publicly-owned sites. Out of these 147 acres, 34.5 acres, or 23%, have high or very high development potential.

Figure 8. Development Potential of Properties surrounding the Blue Heron Site, 2012



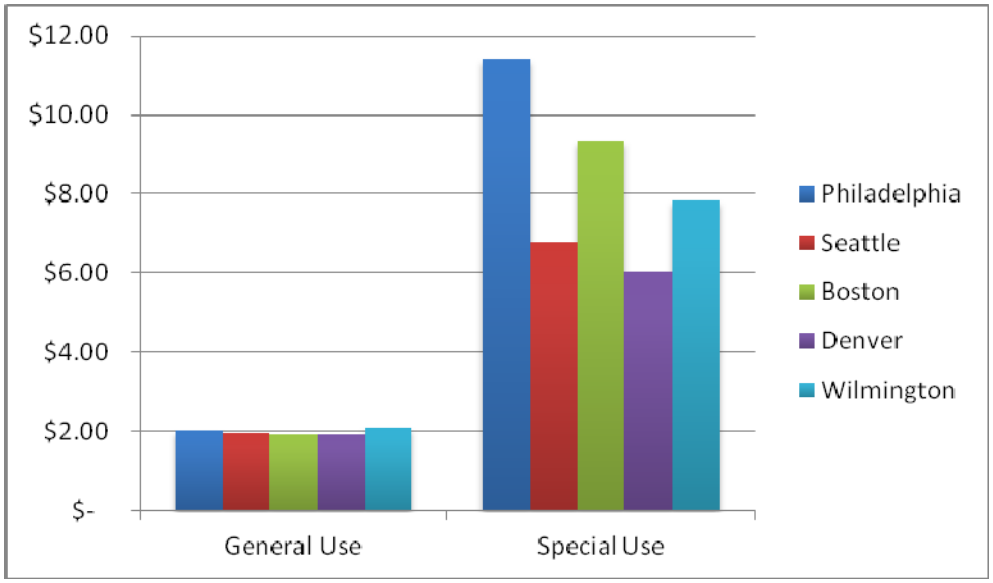
Source: Metro Regional Land Inventory System (RLIS)

USER BENEFITS

Redevelopment of the site will provide scenic views of the Falls, opportunity for recreational activity, and access to open space on the riverfront. Residents of Oregon City and surrounding areas will benefit from the use of the site. Little or no money exchanges hands when a person uses a park, trail, or other public site, but there is still significant gain to that person, which economists call "consumer utility." This can be quantified in the form of "willingness to pay," in which park users name a price for a recreational activity that reflects the physical and emotional gain they derive from the activity. More intensive uses usually have higher "willingness to pay" values, reflecting the more significant physical and emotional gain that is enjoyed by engaging in them.[69] Trail use and other recreational activities also offers health benefits, which can contribute to higher quality of life and healthcare savings for individuals, communities, and private companies.

In a few cities, surveys have been conducted to determine residents' willingness to pay for parks and other amenities. For example, in Seattle, surveys showed general park use is worth $1.95 per use to residents.[70] In Philadelphia, the value per visit to a historic site is $3.13. Figure 9 shows values for other cities. In each city surveyed, residents valued general use visits at about $2.00 each, and special use visits between $6 and $12 each on average. Special use values include golf courses, gardens, festivals and concerts, and historic sites.

Figure 9. Per Visit Value of Park Visits in Selected Cities



Source: The Trust for Public Land. General uses include picknicking, walking, using playgrounds, and dog walking. Special uses include festivals and concerts, golf courses, gardens, and historic sites.

There has not been a study of this kind for any municipality within the Portland metropolitan area. However, because the cities studied showed very similar results despite differences in size and location within the country, it is reasonable to assume the results for Oregon City and the Portland Metro area would not be much different.

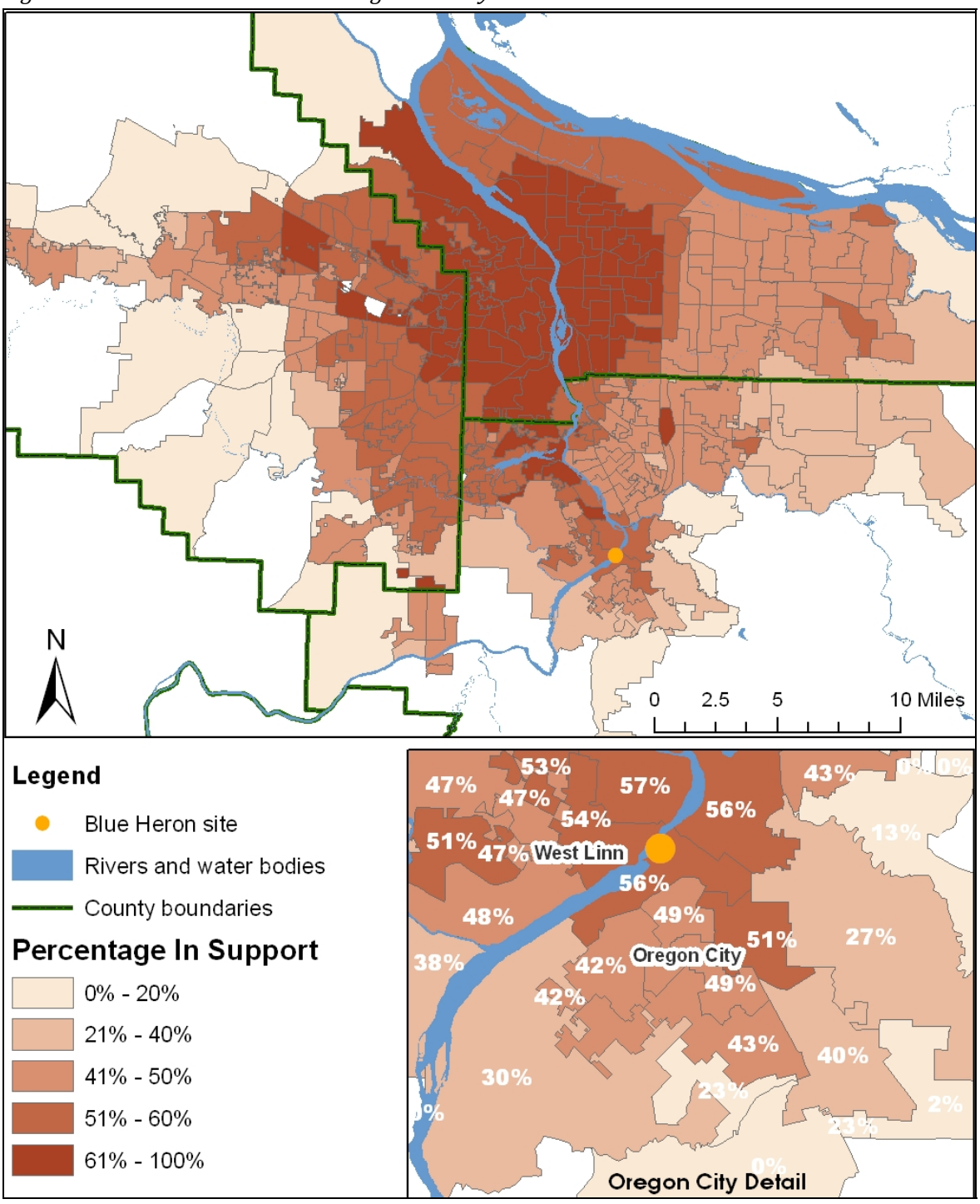
If the Willamette Falls site receives the same number of visitors as the Crown Point Vista House in the Columbia River Gorge (one million) and visits are valued at about $2.00 each, the site would be worth $2,000,000 annually in user benefits. Using the historic site use value for Philadelphia of $3.13, the site would provide $3,130,000 in direct use benefits annually. Special uses like gardens and festivals would be expected to result in an even greater total benefit.

Development of the site also offers the opportunity for new connections to the regional trails system. The site could lead to the interconnection of 50 miles of continuous trail as a result of a newly-developed section. There is an opportunity to interconnect the trails on site north to the I-205 Trail (170,000 users per year), Trolley Trail (about 42,000 users per year), and Springwater Corridor (1 million users per year)[71], south to the Willamette River Greenway, and west over the Arch Bridge to the Willamette River Greenway in West Linn. New trails will also leverage Oregon City's existing network of public stairways, promenades, and municipal outdoor elevator to link the entire community to Willamette Falls.

Arch Bridge and Willamette Falls.

Another source available for determining the user benefits of parks and open space to Portland-area residents is Metro's bond measure for natural area acquisitions. In 1995 and in 2006, voters in the region approved bond measures for Metro to purchase and protect natural areas. The full bond measure language is found in Appendix D. The average homeowner in the region pays $2.50 to $2.92 per month. Figure 10 shows the voting results by precinct. In Oregon City, there was majority support for the measure in the three precincts closest to downtown Oregon City, where population is most concentrated. While not stronger than Portland, the support in this area is significantly stronger than many other parts of Clackamas County. The fact that the majority of voters voted in favor of the measure reflects their willingness to pay for the existence and use of new natural areas.

Figure 10. 2006 Bond Measure Voting Results by Precinct



Source: Metro.

ENVIRONMENTAL BENEFITS

Re-greening of the site will contribute to human enjoyment, downtown revitalization, and property value increases, as demonstrated previously in this report. In addition, ecological restoration offers benefits in the form of ecosystem services, habitat protection, and climate change resiliency. Lastly, improving ecological conditions on the site will help the partnership leverage support for other work on the site.

Ecosystem Services

Natural ecosystems and the plants and animals within them provide us with services that would be very difficult or expensive to duplicate with technology. A few examples of ecosystem services are flood risk mitigation and prevention, pollination, and ground water recharge. Though these services are often difficult to value monetarily because they are provided for "free", ecosystem services have tremendous economic value and are critical for our quality of life and economy. Scientists estimate that the global value of ecosystem services is many trillions of dollars per year.[72]

Improving water quality through stormwater management and other restoration is a valuable ecological service. The Blue Heron site has the capacity to naturally treat stormwater from the site, from McLoughlin Blvd., and other parts of Oregon City. Treatment could be accomplished using sustainable and innovative methods, providing educational value as well as environmental value. The infrastructure typically required to convey stormwater is costly to build and maintain over time. One method of determining the value of ecosystem services is the Replacement Cost method, in which the cost of humanmade systems to provide the same service is considered the monetary value of an ecosystem service.[73] If portions of the site are restored to a more natural ecological state, they can provide services that would eliminate the need to use costly manmade systems.

A report by ESA on the stormwater system on the site states that stormwater runoff collected on-site currently flows through the clarifier tank and then directly to the Willamette River.[74] Other than the clarifier tank, the site does not currently utilize any stormwater management treatment best management practices.

The report concludes that runoff is still likely a source of metals, sediments and other pollutants associated with urban land-uses as well as any residual contaminants that remain on the site. Under current regulations, all the stormwater from the site needs to be treated prior to discharge. Based on ESA's analysis, a total volume of approximately 66,000 cubic feet of stormwater runoff is generated on the site.

There are also five nearby stormwater outfalls off-site that could be routed to the site for treatment, increasing the volume of stormwater treated on site and leading to higher value.

Habitat Restoration and Health

Acquisition of the site will offer the opportunity to restore approximately 16 acres of habitat at or near the Willamette Falls site. The area surrounding Willamette Falls is an important habitat for Endangered Species Act-listed salmonids, including Coho and Steelhead. The site's fringe areas include oak and prairie habitats that are unique to the Willamette Valley and promote rare and unique native plant and wildlife species.

There is also potential to remove some of the structures along the riverbank and daylight some of the outfalls into the Willamette River. Daylighting is the redirection of a stream from a pipe or culvert into an above-ground channel, with the goal of restoring a stream of water to a more natural state. This will create new habitat for wildlife in the Willamette River.

Stormwater treatment using innovative best practices will also improve water quality in the Willamette River, further enhancing habitat health.

Climate Change Resiliency

Preserving more of our region's and earth's resources will help limit climate change impacts and make our region more resilient to them. Redevelopment and reuse of the site and its infrastructure will conserve land, materials, and energy.

Redevelopment of industrial land is one way to reduce development pressure on valuable farm and forest land near the urban growth boundary. A 2001 study by researchers at the EPA and George Washington University found that, on average, for each acre of urban brownfield land redeveloped, 4.5 acres of outlying green space are preserved. [75]

Historic preservation also conserves resources when compared to new construction. The National Trust for Historic Preservation found that "Building reuse almost always offers environmental savings over demolition and new construction. Moreover, it can take between 10 and 80 years for a new, energy-efficient building to overcome, through more efficient operations, the negative climate change impacts that were created during the construction process."[76]

Leveraging Support

There are a multitude of private and public grants and funding opportunities available for habitat protection and environmental cleanup. Performing this type of work on the site will generate more funding to accomplish all four values of the Willamette Falls partnership.

IMMEASURABLE INTRINSIC VALUE

"There are here three falls on a line of rocks extending across the river, which forms the bed of the upper channel. The water is precipitated through deep abrazed gorges, and falls perhaps forty feet at an angle of about twenty degrees. It was a beautiful sight when viewed from a distance, but it became grand and almost sublime as we approached it nearer. I mounted the rocks and stood over the highest fall, and although the roar of the cataract was almost deafening, and the rays of the bright sun reflected from the white and glittering foam threatened to deprive me of sight, yet I became so absorbed in the contemplation of the scene, and the reflections which were involuntarily excited, as to forget every thing else for the time, and was only aroused by Captain W[yeth] tapping me on the shoulder, and telling me that every thing was arranged for our return."

- John Townsend, scientist, 1834. From http://

www.usgennet.org/alhnorus/a

Redevelopment of the Blue Heron site has cultural and other intrinsic value that cannot be measured. Willamette Falls is considered by some to be the most compelling natural feature in the Portland Metro area. For over 150 years, it has been blocked from public view and access. The Willamette Falls partnership could be the means for Willamette Falls to finally reveal itself to the world.

Some of the intrinsic benefits of the site can be explained by non-use value, which are the benefits that a site provides which do not involve using the site in any way.[77] There are three types on non-use values: existence value, option value, and bequest value. Researchers attempt to measure non-use values through contingent valuation, or "willingness to pay" surveys. Studies have shown that the non-use value for a natural resource can be two to nine times greater than the recreation value.[78]

Existence Value

Existence value is the value that people derive from the knowledge that the site exists, even if they never plan to visit it.

Option Value

Option value is the value obtained from maintaining the option of taking advantage of a site's use value at a later date.

Bequest Value

Bequest value is derived from the wish to bequeath the site, or asset, to future generations.[79]

Another intrinsic benefit is the cultural significance of the site to the Confederated Tribes of Oregon. **Spiritual meaning**, impossible to quantify, is an important aspect of the site and must not be overlooked. There is even a tribal legend about the formation of the Falls. One version tells the story of Coyote and Meadowlark:

> *"'Let's make a waterfall across the river,' said Meadowlark to Coyote. So they made a rope by twisting together young hazel shoots. Holding one end Meadowlark went to one side of the river. Coyote stayed on the other side. Carrying the rope between them they went down the river to a place near where Salem is today. They stopped and Meadowlark said, 'Let's make it here.'*
>
> *But Meadowlark spoke in the Clackamus language and Coyote only knew the Kalapuya language. He did not understand what she said. Instead of making waterfalls, he turned some animals into rock.*
>
> *Meadowlark and Coyote walked on down the river to where Oregon City its today. 'Let's make the waterfall here,' said Meadowlark. This time she used sign language and Coyote understood.*
>
> *So they stretched the rope tight. Coyote pulled hard. Meadowlark pulled with all her might and pressed her feet hard against the rock she was standing on. Then Coyote called on his great powers and turned the rope into rock. The river poured over the rock."*[80]

Other intangible benefits include the **sense of community pride** that will come from successful reuse of the site, and the boost it will provide to the reputation of Oregon City and Clackamas County. Additionally, the site will provide Oregon City with a stronger **sense of place** - a heightened connection of people to the land.

LESSONS LEARNED FROM CASE STUDIES

There are numerous projects around the country with similarities to the Willamette Falls project, including former mills or other industrial uses that have been transformed into parks, tourist destinations, mixed use centers, and museums. These cases offer evidence that catalytic projects like Willamette Falls are feasible, do attract private investment and do increase quality of life. However, many of these projects occurred in larger cities or were missing a key aspect of the Willamette Falls project. As a small City on the edge of a metropolitan area, Oregon City poses major differences that limit the applicability of these projects, but there are still lessons that can be learned from previous experiences. Appendix E lists 19 projects that feature similarities to this one. Below are a few highlights from limited research into these cases.

> "A couple of years ago we adopted a redevelopment plan for an industrial area adjacent to downtown. We started asking ourselves what kind of develop
>
> ment might go there, housing or mixed-use? We figured out quickly that we were asking the wrong questions. We had no idea what the market could bear at that time or any time in the future, but we knew we wanted to create an extension of our downtown. So, we did exactly what New York did when they made their plan so many years ago - we kept it simple. The City Commission adopted a plan that laid out streets and blocks, small ones. And that's it."
>
> -Anthony Lyons, former Director of the Gainesville, FL Community Redevelopment Agency in an interview with Fast Company. www.fastcodesign.com

Mill Ruins Park – Minneapolis, MN

Mill Ruins Park at the Mississippi River is considered to be the centerpiece of the revitalization of Minneapolis' historic West Side Milling District. The park interprets the history of flour milling in Minneapolis and shows the ruins of several historic flour mills. The park also has a bridge to take in the views of St. Anthony Falls, the only waterfall on the entire Mississippi River. Development in the Mill District surrounding the park is bolstered by the park's role as a destination. About 4,650 new housing units in the area have been completed or are in construction and over a thousand more have been planned.

Cannery Row – Monterrey, CA

Cannery Row is a waterfront street in Monterey, California known for its historically significant sardine canning factories made famous by John Steinbeck's novel. It currently houses stores, hotels, and restaurants in the preserved factories and is a popular tourist destination. After restaurants moved into the area following the abandonment of the canneries, the growing popularity of the "row" led to the development of a world-class aquarium that attracts over two million visitors per year, resort hotels, and additional retail and restaurants.

Monadnock Mill – Claremont, NH

In Claremont, a city of 13,000, redevelopment of former textile mills along the Sugar River attracted private investment from a growing tech company and a popular regional hospitality company. Historic mill buildings were renovated into offices, hotel rooms, and lofts. One of the developers, John Illick, "is quick to point out that this project would have

been dead in the water without a strong commitment from the city of Claremont to improve their infrastructure, including street upgrades, the creation of a riverside park, and the large scale construction of new parking."[81] State and Federal funding was also integral in financing infrastructure and a pedestrian bridge that connects the mills to parking and the Claremont Visitor's Center. The lot along with a 256 space parking garage were funded by a $10 million bond to be paid back over time through a TIF district.

Another source of lessons is Metro's report on Economic Development and Parks. Here, case studies of successful projects shared the following features:[82]

- A large vision with a high level of public investment typically combining local and federal funding with private donations.
- An extremely high level of design excellence, using nationally or internationally renowned design teams.
- High public visibility often with a trail connection or other destination linkages that increase use.
- A significant amount of upfront public investment in order to attract private development.

CONCLUSION

THE FORMER BLUE HERON PAPER MILL IN OREGON CITY IS WITHOUT A DOUBT UNIQUELY SITUATED TO BE A CATALYST FOR GROWTH AND DEVELOPMENT IN OREGON CITY, AMONG OTHER BENEFITS.

The cost of doing nothing is high. Without an investment from the public sector, it is almost certain that the site will sit vacant. If left in this state, the property will be a drag on the redevelopment of downtown Oregon City and the benefits that have been described in this report will not be realized.

Initial public investment and a fully transformed site will give residents and visitors the opportunity to enjoy the site's beauty and historical significance. It will increase property values in the City, contributing to the wealth of the community. It will spur the creation of new businesses in the City and County, from hotels and restaurants to retail stores and recreational businesses. It will house jobs that contribute to regional economic development and the growth of the Oregon City regional center. It will improve the environment through habitat protection. It will make Oregon City and the region a more attractive place to live, work, and do business.

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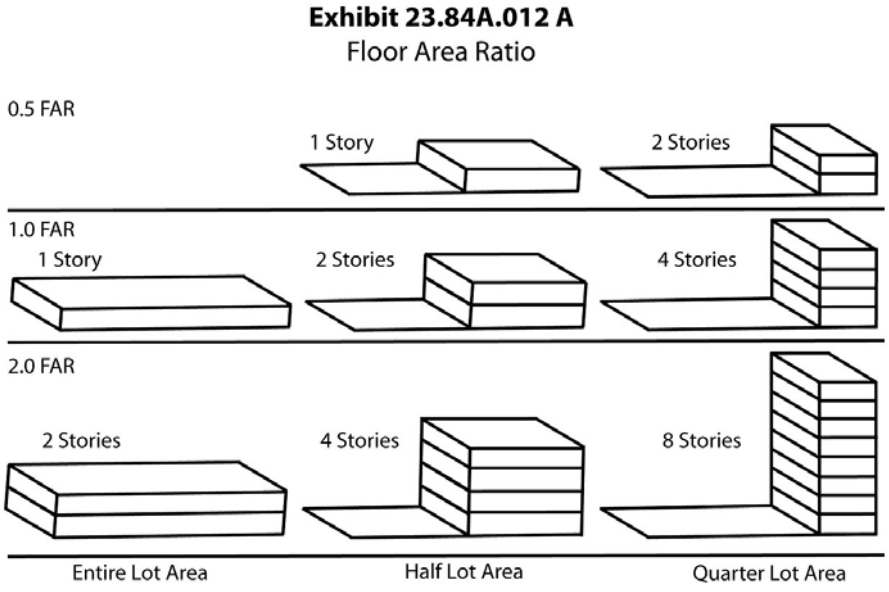
APPENDIX A – DEVELOPMENT SCENARIO ASSUMPTION DETAILS

Three scenarios for intensity of future development on the site are examined - one using an average of four to one Floor Area Ratio (FAR) , another with three to one FAR , and the last with two to one FAR. Other assumptions regarding private development on the site are as follows, and further explanations are below:

- 11 acres of developable land
- 30% of total land area used for public right of way (3.3 acres), leaving 7.7 acres for development.
- Mixed Use Development: 9-13% retail, 28-30% office, 28-30% residential, and 30-31% structured parking
- Construction costs of $160 per square foot for offices, and $195 per square foot for residential and retail (high estimate), and $20,000 per parking space.

Floor Area Ratio Assumptions

Minimum FAR in downtown Oregon City ranges from 03. to 0.5, with no maximum. Height limits range from 45 to 75 feet. Thus, FARs of 2:1, 3:1, and 4:1 are all legally permissible under the MUD zoning code.



Source: Seattle Zoning Code

Developable Land Assumptions

As the site is undergoing investigations, it is assumed that half of the total 22 acres could be available for private development, while the other half is used for open space, public access, and environmental restoration. To account for public right of way, – streets, sidewalks, and on-street parking – 30% of the acreage is removed from the 11 acre (479,160) site size, leaving 7.7 acres for development.

Parking Assumptions

Due to the high FARs assumed, structured parking is almost necessary in order for development to be feasible. It is possible that some parking could be surface or underground, but as structured parking is the middle-range for cost per space, it has been selected for analysis purposes.

Parking needs were assumed to be 2 parking spaces per 1000 square feet of office, 2 spaces per 1000 sf of retail, and .67 spaces per residential unit. Due to the availability of on-street parking, the possibility of shared parking, assumed walkable nature of the site, and nearby transit options, parking needs are expected to be lower than what is usually provided.

Area per space is estimated to be 300 square feet, and structured parking is assumed to be included in the Floor Area Ratio. Using the assumed parking needs and the mixed use development types, the percentage of building space needed for parking was estimated at 30% to 31%, depending on the scenario.

Construction cost per space is assumed to be $20,000.

Square Footage Assumptions

Table 1. Building square footage (sf) for each scenario

	2 to 1 FAR	3 to 1 FAR	4 to 1 FAR
Commercial sf	187,831	301,871	402,494
Retail sf	87,207	100,624	120,748
Residential sf	187,831	301,871	402,494
Parking sf	207,955	271,684	415,911
# Parking spaces	702	1,071	1,372
Total square footage	671,526	977,120	1,343,020

Residential unit size is assumed to be 700 sf on average, with 15% of the total residential square footage eliminated from the leasable space to account for hallways and entrances.

APPENDIX B – ECONOMIC INPUT-OUTPUT MODELS

The following explanation comes from "Oregon Convention Center: Fiscal Year 2010-11 Economic and Fiscal Impact Analysis Report" produced for Metro in 2012 by Crossroads Consulting Services.

> "In an effort to quantify the inputs needed to produce the total output, economists have developed multiplier models. The estimation of multipliers relies on input-output models, a technique for quantifying interactions between firms, industries and social institutions within a local economy. This analysis uses IMPLAN software and databases which are developed under exclusive rights by the Minnesota IMPLAN Group, Inc. IMPLAN, which stands for *Impact Analysis for Planning,* is a computer software package that consists of procedures for estimating local input-output models and associated databases.
>
> The IMPLAN software package allows the estimation of the multiplier effects of changes in final demand for one industry on all other industries within a defined economic area. Its proprietary methodology includes a matrix of production and distribution data among all counties in the U.S. As such, the advantages of this model are that it is sensitive to both location and type of spending and has the ability to provide indirect/induced spending, employment and earnings information by specific industry category while taking into account the leakages associated with the purchase of certain goods and services outside the economy under consideration."

Input-output models estimate economic and fiscal impacts as possible for any project or event. Project impacts include direct, indirect, and induced impacts. The **direct effects** include the new initial employment from the project, the new wages paid to these employees, and expenditures on all other inputs used by the project.

The **indirect effects** (or spin-off effects) result from the expenditures for supplies and materials at other businesses that sell goods and/or services to the new business or activity. Such businesses increase the number of their own employees, wages, and purchases of goods and services from businesses who supply them. This process continues to ripple outward as more and more businesses are impacted through additional production and sales.

The **induced effect** refers to the separate and additional impact of increases in household spending on goods and services that result in still further increases in employment and income that ripple through the defined region's economy.

Finally, the relationship between the initial new economic activity (the direct impact) and the final total economic impact (of the direct, indirect, and induced impacts) caused is referred to as the **multiplier effect**.

APPENDIX C – PROPERTY VALUE IMPACT ANALYSIS METHODS

A hedonic model is a common way to determine the value of certain characteristics or aspects of properties. It is based on the hypothesis that products can be treated as bundles of characteristics and that prices can be attached to the characteristics. In real estate, hedonic models can be used to test the impact of such characteristics on property values.

Metro's Regional Land Inventory System (RLIS) contains detailed parcel-level data that was used for this analysis. Two separate models were created – one using all single family residential properties within 0.4 miles of the site, and another using Oregon City commercial properties within 0.5 miles of the site. The dependent variable in this analysis, assessed value, was regressed against multiple variables for each model, all the latest available data for 2012. Assessed value is provided by Clackamas, Multnomah, and Washington County tax assessors to Metro.

The hedonic models include some variables about the physical property itself, and some variables about its surroundings, all described in the table below. The expected sign is the predicted impact (positive or negative) that an increase in the independent variable would have on the dependent variable. The analysis was limited by unavailable data, including factors that would indicate housing quality or amenities, such as garage size, fireplaces, building materials, and finishes. While these factors would ideally be included in a regression of property values, the results did predict over 60% of the variability in property values (R^2=0.626 and 0.667 for residential and commercial properties, respectively), which is considered fairly high.

Residential Model Independent Variables

Variable	Description	Expected Sign
Square feet	Square footage of structure	+
Age	2012 minus Year Built of structure	-
Age Squared	Square of Age	+
West Linn	Dummy variable; 1=property in West Linn, 0=all other properties	+
Acres	Acreage of parcel	+
Distance to park	Distance of parcel center point to nearest public park boundary	-
Within 1000	Dummy variable;1= parcel center point within 1000 feet of Blue Heron property line, 0= all others	-
1000-1500	Dummy variable;1= parcel center point between 1000 and 1500 feet of Blue Heron property line, 0= all others	-
Surface Elevation	Elevation of parcel	+

Commercial Model Independent Variables

Variable	Description	Expected Sign
Downtown	Dummy variable; 1=parcel within historic downtown, 0=all others	+
railroad	Dummy variable; 1=parcel borders railroad line, 0=all others	-
within1000	Dummy variable;1= parcel center point within 1000 feet of Blue Heron property line, 0= all others	-
acres	Acreage of parcel	+

Residential Regression Results

Dependent Variable	Total Assessed Value
Adjusted R Square	0.6474
Standard Error	34284.9051
Observations	268

Variable	*Coefficients*	*Standard Error*	*t Stat*	*P-value*	*Significant**
Intercept	115871.7	24626.52	4.71	4.14E-06	
Square feet	44.18	2.72	16.22	2.95E-41	Yes
Age	-722.88	406.97	-1.78	0.08	Yes
Age Squared	2.67	2.85	0.94	0.35	No
West Linn dummy	23109.49	7765.93	2.98	0.0032	Yes
Acres	165106.7	24912.24	6.63	1.98E-10	Yes
Distance to park	-8.73	11.61	-0.75	0.45	No
Within 1000	-15647.65	7222.95	-2.17	0.03	Yes
1000-1500	-2623.19	5835.07	-0.45	0.65	No
Surface Elevation	19.82	73.30	0.27	0.79	No

*At the p<0.1 level

Commercial Regression Results

Dependent Variable	Assessed Land Value
Adjusted R Square	0.6771
Standard Error	41366.13
Observations	165

Variable	*Coefficients*	*Standard Error*	*t Stat*	*P-value*	*Significant**
Intercept	21204.58	6809.62	3.11	0.00	Yes
Downtown	14866.40	7272.65	2.04	0.04	Yes
railroad	5678.77	9370.94	0.61	0.55	No
within1000	-11736.43	6645.66	-1.77	0.08	Yes
acres	326305.48	17846.91	18.28	4.94E-41	Yes

*At the p<0.1 level

More data on residential properties was available through RLIS, hence the difference in variables between the two models. Because no structural characteristics could be found for commercial properties, the dependent variable was simply the land value instead of the total (land plus building) value. Also, some factors, including distance to a park and surface elevation, are usually not as tied to commercial property values as they are to residential values. Coefficients can be interpreted as dollars. For example, a one-unit increase in acreage (one acre) would result in a $165,107 increase in property value. Properties within 1000 feet of the Blue Heron site result in a decrease of $15,647 in value.

APPENDIX D – BOND MEASURE 26-80

The following language appeared in the Voter Pamphlet for the November 7, 2006 election:

BONDS TO PRESERVE NATURAL AREAS, CLEAN WATER, PROTECT FISH, WILDLIFE

QUESTION: Shall Metro preserve natural areas; protect fish, wildlife; improve water quality; issue $227.4 million in general obligation bonds; audit spending? If the bonds are approved, they will be payable from taxes on property or property ownership that are not subject to the limits of sections 11 and 11b, Article XI of the Oregon Constitution.

SUMMARY: Protects specific natural areas, lands near rivers and streams, wildlife and trail corridors through land acquisition and restoration. Funds specific local water quality, wildlife and park protection projects for local parks providers. Funds water quality and wildlife habitat restoration matching grant program for local communities. Requires 2 to 1 match for local community grants. Match may be met with volunteer hours. Approved bonds will:

- Preserve specified natural areas
- Protect and restore watersheds for improved water quality
- Protect streams, fish and wildlife
- Increase the presence of nature in neighborhoods

This measure directs Metro to buy and restore natural areas for the protection of water quality and preservation of fish and wildlife habitat for the benefit and enjoyment of current and future generations, establishes a citizens oversight committee and requires a yearly independent financial audit to be published in local newspapers. Bonds mature in not more than 20 years. Bond cost estimate is about 19 cents per $1,000 of assessed value per year. The average homeowner in the region pays $2.50-$2.92 per month.

APPENDIX E – TABLE OF SIMILAR PROJECTS

Project/Site	Location	Description	Acres	Notable aspects
America's River	Dubuque, IA	Riverfront museum, park, aquarium, mixed use on brownfield site	90	$400 million project. Catalyzed downtown redevelopment in historic area.
Fort Vancouver	Vancouver, WA	National historic site, old Army fort	210	Gets over 1 million visitors per year
Torpedo Factory Art Center	Baltimore, MD	Adaptive reuse of former torpedo factory as artist center		Almost 400,000 visitors per year
Monadnock Mill	Claremont, NH	Riverfront mill buildings reused as tech offices, housing, hotel rooms and restaurants.		Used NMTC, City built infrastructure and 286-space parking garage next door. Tenants include Red River Computing and The Common Man Inn and Restaurant.
McMenamin's Edgefield	Troutdale, OR	Reuse of poor farm property into golf course, hotel, restaurant, and concert venue. Privately owned.	74	Placed on the National Register of Historic Places in 1990, same year it was purchased from county for $500,000
Tom McCall Waterfront Park	Portland, OR	Conversion of riverfront highway to linear park in downtown, houses Portland Saturday market and numerous festivals		Property values increased, private development along riverfront (Riverplace, Yards at Union Station) still required public assistance
American Tobacco	Durham, NC	Tobacco factory campus rehabilitated as mixed use center adjacent to stadium, also includes green space and trails		Private developer, 1 million square feet. Nonprofits provided some financing, public provided parking garages for $30 million.
Confluence Park	Denver, CO	Kayaking waterways and park on waterfront adjacent to REI		$70 million public investment. REI received $6.3 million in TIF for $32 million renovation of historic warehouse.
Riverwalk	Columbus, GA	22-mile riverside trail with space for events. Planned whitewater park on river after dam removal.		Economic impact studies for whitewater park predict large tourism increase and job creation.
Spokane Falls Park	Spokane, WA	Home to 1974 world's fair, features amusement rides, tram over waterfalls, trails, IMAX theater	100	Two restaurants overlook the Falls. Home to many festivals and events.
Mill Ruins Park	Minneapolis, MN	Historic Park with trails and ruins from old steel mill	8	$54 million for public park. 1.6 million visitors for larger waterfront park
Pike's Place Market	Seattle, WA	Open air produce, fish and craft market, with eateries, along the waterfront. Site of original Starbucks.		10 million visitors per year. Media coverage of fishmongers key to popularity among tourists.
Sculpture Garden	Seattle, WA	Brownfield redevelopment into ecologically restored-waterfront park with sculptures	8.5	$15 million in public investment, $70 million private donations. Big-name architect.

Project/Site	Location	Description	Acres	Notable aspects
Ghirardelli Square	San Francisco, CA	Adaptive reuse of chocolate factory as retail shops and restaurants		No public investment
Lowell National Historic Park	Lowell, MA	Textile Mills repurposed into museums and lofts, national park offers tours, trolley, interpretation		566,000 visitors in 2009 and $35 million in visitor spending
Cannery Row	Monterey, CA	Former sardine canning area on waterfront now a destination with fishing, aquarium, kayaking, retail, etc		Privately developed, 4 million visitors per year. Sardine Factory is very well-known restaurant. Community opposition stopped mall development on the site.
Concrete Plant Park	Bronx, NY	Public park and marsh restoration with river access on the site of a former concrete plant	9	$10 million public investment
Historic Mill District	Bend, OR	Open space, trails, and retail center on former lumber mill along Deschutes River	270	private developer purchased site, no public role.
Carrie Furnace	Pittsburgh, PA	Former steel furnace along the River planned to house steel museum, mixed use development, regional trails	168	County purchased site for $5.75 million and performed remediation and installed infrastructure with help from grants. Plan to sell the site to private developer.