

## WASHINGTON COUNTY INDUSTRIAL SITE READINESS PROJECT EXECUTIVE SUMMARY

### A. Project Description

Washington County participated in the Regional Industrial Site Readiness Project produced by Mackenzie in partnership with Business Oregon, Metro, NAIOP, Port of Portland, and the Portland Business Alliance in 2012. This project examined the current and near-term supply of large lot (25 net developable acres and larger) industrial sites that are able to accommodate the expansion of existing employers and recruitment of potential new employers to the Portland metro region. As a continuation of that work, Washington County commenced this project, which analyzes 15 additional sites throughout Washington County. This Project utilized the same methodology as the 2012 project with the same consultant team. For these reasons, this report will not detail the methods utilized in this analysis.<sup>1</sup>

This project is also in response to the regional industrial lands inventory, which identifies industrial sites greater than 25 acres in the Metro Urban Growth Boundary. That inventory identified vacant land countywide as a part of the 2012 project, and was updated in June 2014 and was accomplished separately from this study. This study kicked off in September 2014 once the regional inventory update was completed. The regional inventory update identified seven new sites in the June 2014 inventory, of which four were in Washington County; however, only three of those four<sup>2</sup> are studied in this report. This Washington County analysis involved assessing the development readiness of the 15 identified industrial sites selected by Washington County from the 2012 Phase I analysis. Each site received the following analysis:

1. Target Industry Analysis: Economic and industrial trends analysis and examination of surrounding opportunities and challenges. The County is currently working to attract the following industry types: advanced manufacturing, light/general manufacturing, warehouse/distribution, food/beverage processing, high tech/clean tech manufacturing, and industrial business parks.
2. Unique conceptual development area plan (with a specific chosen industry cluster).
3. Site evaluation: Analysis to determine development readiness and net developable area.
4. Industry Cluster Impact analysis: Market feasibility and economic/fiscal impacts.
5. Decision Ready binder: Business Oregon's pre-site certification application package for jurisdictions and/or property owners to submit to Business Oregon once this project has been completed, if they wish to be considered for Decision Ready designation.

---

<sup>1</sup> A complete reference of the 2012 Regional Industrial Site Readiness Project can be found here: [http://www.valueofjobs.com/land\\_study\\_2012/lis\\_Phase1-2-3-analysis-findings.html](http://www.valueofjobs.com/land_study_2012/lis_Phase1-2-3-analysis-findings.html)

<sup>2</sup> The fourth site is in the City of Cornelius UGB. Cornelius was not a project partner in 2013 when the CET grant application was written because they didn't have an identified site. The Cornelius site was discovered during the 2014 Inventory update project.

## B. Project Purpose

The primary purpose for this project was to evaluate industrial development sites throughout Washington County in order to identify common barriers to traded sector job growth and to leverage public investments to better promote private investment and job growth. With each development site, the project has identified opportunities and constraints, estimated costs, and timeline and process for project readiness for the selected industry user profile (warehouse, high tech manufacturing, industrial business park, etc.). The Washington County Industrial Site Readiness Project is designed to serve as a guiding document to communities to better understand the impacts of the regulatory structure and the relationship between decisions on investments in infrastructure and new investment and jobs to their industrial opportunity sites.

The purpose of the project is to:

- Quantify the supply and readiness of industrial sites by analyzing a subset of the selected industrial sites identified in the regional inventory. By analyzing these sites, the timing and costs to develop these sites will illustrate opportunities and constraints commonly faced by economic development across Washington County.
- Determine the costs and benefits of developing these sites through an evaluation of economic outputs and residual land values. This analysis is based on metrics similar to the Regional Industrial Site Readiness Project (2012).
- Increase awareness of the key regional sites in Washington County with Decision Ready designation applications for 15 sites. The Decision Ready program is the first step to Site Certification, which is the established statewide program to promote development ready sites.
- Inform County and jurisdiction staff on potential tools and policies to maintain a market-ready inventory of industrial sites.
- Identify where strategic public investments or policy changes would have the best impact on development ready land inventories and allow a regional look at issues that impact multiple sites (Forest Grove, Tualatin/Sherwood, and Wilsonville) to allow better decisions on leveraging resources for the best regional outcomes.
- Due diligence for the market: use this work as a tool for Economic Development recruitment and retention throughout Washington County and with other agency partners at the regional and state level.
- Identify the largest barriers and cumulative impacts of barriers to development for prospective users/buyers/tenants
- Identify the cost of improving site readiness and evaluate the economic and fiscal benefits of making improvements.

## C. FINDINGS

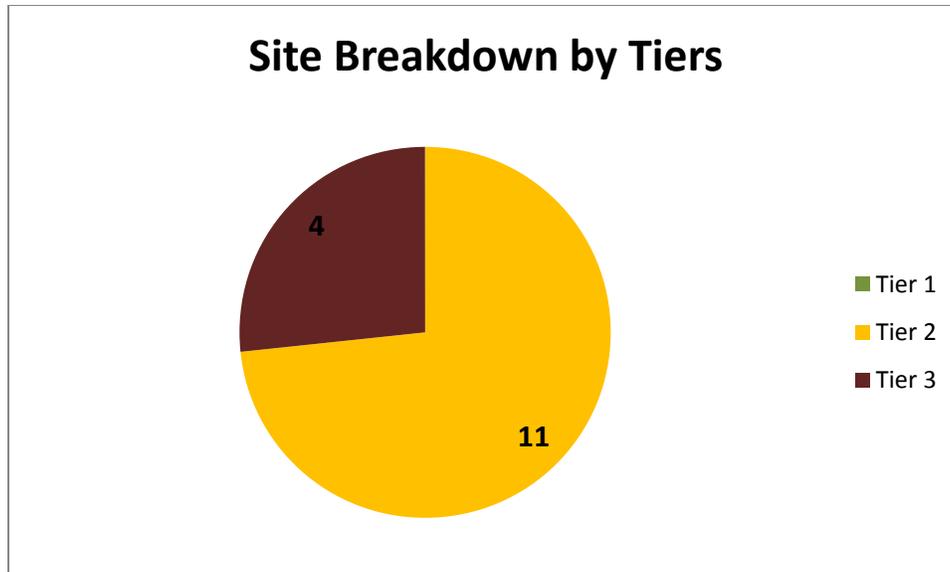
### 1. *Development Readiness*

For the purpose of this study, a “development ready” site is a site which has all infrastructure for water, sanitary sewer, stormwater, and transportation improvements necessary to serve the intended use available to the site (offsite infrastructure is stubbed to the site). Additionally, a “development ready” site also has completed: 1) any needed onsite wetland mitigation, 2) brownfield contamination mitigation, and 3) grading to mitigate slopes and/or surcharge of the soils for the building pad and site for its selected industry profile use. For the infrastructure requirements to serve the targeted use on the site, the project team utilized the Business Oregon Industry Profiles from the Industrial Site Certification program, as well as industrial utility estimates presented in utility system master plans. The analysis in this study also shows some of the timing constraints associated with providing development ready industrial land sites. Timing constraints commonly observed were permitting times for wetland permits, time for legislative actions (annexation), and timing related to brownfield mitigation and soils surcharge. The evaluation of “development ready” sites is the same as was utilized in the 2012 Regional Industrial Site Readiness Project completed by Metro, NAIOP, Port of Portland, Business Oregon, and the Portland Business Alliance. That project used the following tiers to categorize development readiness of a site:

- Tier 1 sites could develop within 6 months
- Tier 2 sites could develop within 30 months
- Tier 3 sites would require longer than 30 months to develop

It is also important to note that “development ready” as used in this analysis is not the same as the definition for “site certified” in the Business Oregon Industrial Site Certification. Business Oregon’s Industrial Site Certification means a site is ready to begin site work construction within six months or less, while “development ready” is more closely aligned with a site that is ready for building construction for the intended use (this may also be called “Pad Ready”). Because of this difference, site certification would not include slope mitigation or soils surcharge. The “development ready” designation includes slope mitigation and surcharge time for the building pad and both the offsite infrastructure and the onsite preparation timing to allow building construction.

Of the sites analyzed, none of the 15 sites appear to qualify for Business Oregon site certification given the current program. In addition, none of the sites qualify for development ready because of the timing for infrastructure improvements that would still need to be completed before these sites are pad ready with the conceptual layouts provided in this study. Slope, surcharge, and wetlands impacts would depend on the type of use, development size, and building location. A different development plan with less wetland impacts, slope mitigation, or surcharge may allow sites to be more development ready, but in this study, none of the sites would become a Tier 1 site if the timing for these was removed.



#### **0 Tier 1 Sites (Available for facility construction within 180 days)**

This analysis found that there are no Tier 1 “market ready” sites available for traded-sector opportunities in the near term. The shortest site readiness timeframe found was 15 months<sup>3</sup>, with a required wetland permitting timeframe of nine months.

#### **11 Tier 2 Sites (Available for facility construction between seven and 30 months)**

The majority of the sites (73%) fell in the Tier 2 category, requiring investment and policy actions to bring these sites to market. The greatest challenge facing all 11 sites are transportation deficiencies and improvements, with a \$21 million cost for improvements. Public utility infrastructure is also a challenge, with an estimated cost of over \$16 million for improvements to get utilities constructed to the site. On *average*, that is approximately \$3.3 million **per site** for transportation and utility improvements.

#### **4 Tier 3 Sites (Available for facility construction beyond 30 months)**

There are multiple challenges and significant investment and time required to bring these sites to market. A lack of public utility infrastructure (water, sewer, storm) is the largest challenge these sites face, with a total of almost \$25 million for required constructed improvements to the sites. However, transportation is a close second, with a total of \$23 million of required transportation improvements. On *average*, that is approximately \$12 million **per site** for transportation and utility improvements.

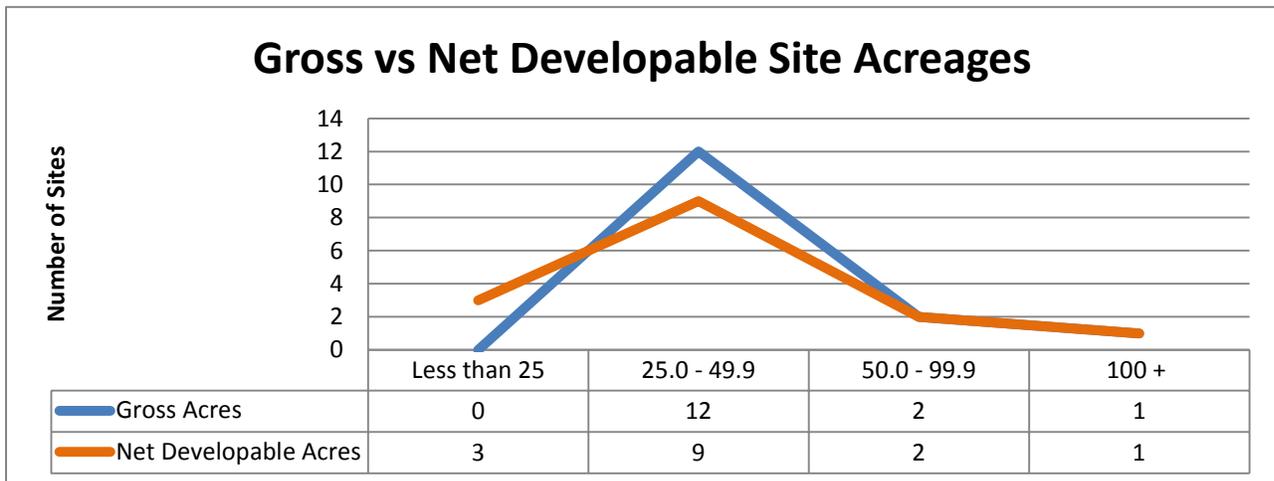
This study analyzed approximately 850 gross acres of land for industrial development. Subtracting for infrastructure, natural resource constraints, and significant slope areas, the net developable acreage is approximately 700 acres for the 15 sites. Onsite utility easements and stormwater areas are not subtracted from this net developable area because the stormwater areas support development and the utility easements still have some ability to be utilized (i.e., parking/maneuvering). This 85% of net developable acreage is higher than would be expected for typical development of areas without infrastructure improvements in place because of the study’s goal to mitigate for wetland impacts and slope impacts. In addition, the wetland mitigation for all of the study sites is to be done in offsite mitigation banks, which also has a positive effect on the net developable percentage. Where typical

<sup>3</sup> Henningsen Cold Storage; Forest Grove

private development is required to minimize wetland impacts and typically seeks to avoid massive amounts of grading, the concept layouts in this study attempt to maximize the site utilization. Following is a summary of the key items impacting developable areas and timing noted in this study.

### Gross and Net Developable Acreages

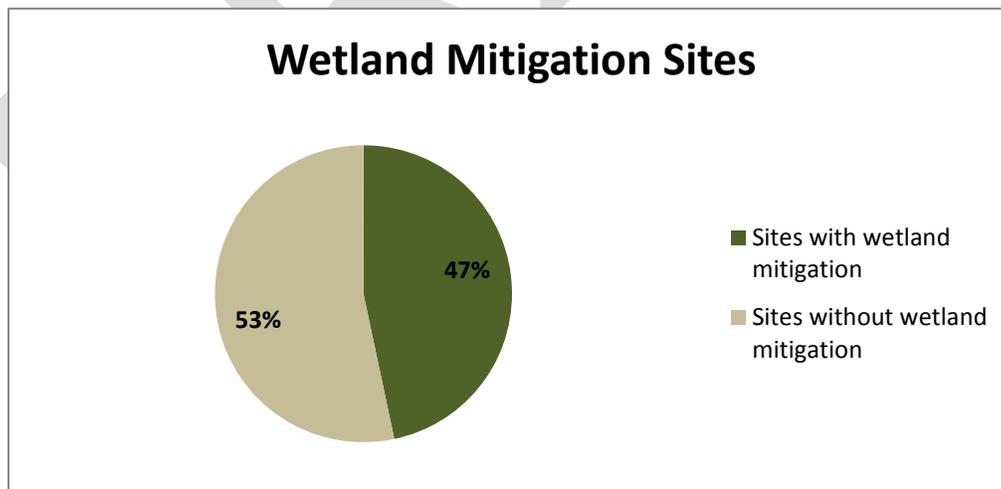
The 15 sites studied in this analysis are evenly distributed in terms of gross and net developable acres, as shown in the graphic below:



All of these sites have a portion of the site that is consumed by right-of-way dedication, wetland mitigation, and significant slopes.

### Wetlands

Wetlands were a common constraint on many of the sites in this study, with 47% of the sites needing some form of mitigation for wetland impacts to achieve the conceptual development plan as shown.



Of the sites with wetland impacts, none of the sites are required to mitigate on site as all sites are served by one or more wetland mitigation banks in the area. However, the option of on-site mitigation is available on all impacted sites, if a future user/developer chose to decrease the net developable acreage on site with additional wetland creation or mitigation. More information regarding the wetland analysis on each site, as conducted by DSL, can be found in Appendix E: DSL Wetlands Evaluation.

Of the 850 gross acres analyzed in the study, approximately 50 acres (5% of gross acres) of wetlands are estimated to be impacted by the proposed conceptual development plans. This study assumes that all wetlands will be mitigated by paying into a wetland mitigation bank near the subject sites, for an approximate total of nearly \$9 million. On *average*, this results in \$1.25 million per impacted site. Additionally, the analysis results indicate that the cost per sf of paying a wetland mitigation bank for impacts is less than the assumed development ready value per net developable square foot **and** per gross area as well. The higher costs of land outweigh the cost of paying into the mitigation bank.

Jurisdiction	Site Name	Mitigation Cost per sf	Mitigation Cost per acre	Total Estimated Wetland Mitigation Cost	Assumed Development Ready Value per sf (net developable area)	Assumed Development Ready Value per acre	Assumed Development Ready Value per sf (gross area)
Forest Grove	Henningsen	\$3.56	\$155,000	\$103,075	\$4.25	\$185,130	\$4.30
Hillsboro	Cranford			\$1,290,000	\$5.25	\$228,690	\$5.38
	Van Rose			\$2,945,000	\$5.50	\$239,580	\$5.71
	Evergreen Road.			\$852,500	\$6.45	\$280,962	\$6.55
Tualatin	Tigard Sand and Gravel			\$171,480	\$6.25	\$272,250	\$6.67
	Itel			\$437,500	\$5.75	\$250,470	\$5.91

When combined with the long lag times for permitting (nine months) and mitigation, wetland mitigation is a key constraint to site development and readiness. Investment in resources, such as creation of more wetland banks or a faster and more streamlined permitting process, could move these sites further toward marketability. On a positive note, the ability to mitigate in an established mitigation bank does increase the net developable acreage in the study sites.

### Transportation

This study found that transportation improvements bear a significant burden of cost for **each** of these 15 development costs; approximately \$45 million are needed for improvements. As this is over 35% of *all* improvement costs (\$128 million), the graphic below breaks out transportation improvements in two ways for further analysis:

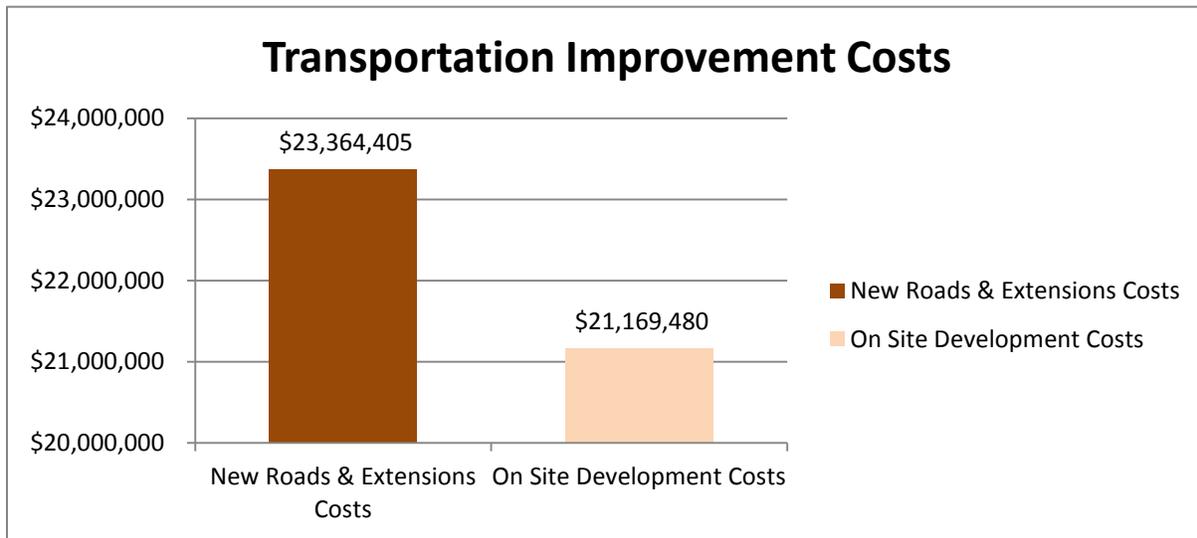
1. Costs for construction of new public roads and extensions for access (core roads).
2. Transportation improvements triggered by development (e.g., frontage improvements for sidewalks, half street improvements, etc.).

Of the \$45 million of required transportation improvements, approximately 52% are attributed to the construction of new public roads to access these sites, as outlined in the Transportation Systems Plans. This results in \$33,000 per net developable acre (\$28,000 per gross acre); \$0.76 cents per sf of net developable land. Because these investments would serve a regional need and are supportive of regional growth, they are costs which are needed independent of site development.

On the other hand, over half of the transportation improvement costs are triggered by specific on-site development, and include items like half street improvements and the construction of sidewalks. This cost is lower than regional transportation improvement costs above on a net developable acreage and

square foot cost; \$30,000 and \$0.68 respectively. It is important to note that if a site fronts a County arterial, the site is unable to gain access to that new arterial road if the site has frontage on a lower classification of roadway.

This means that in addition to the sale price and any on site constraints (e.g., wetlands, slope mitigation, brownfield clean up), users and/or developers are estimated to pay an additional \$0.68 per square foot for adjacent transportation costs, and \$0.76 cents for regional transportation costs on each square foot of land. This puts increased downward pressure on the market price of land.



### Brownfield-Site Constraints

Over 90% of the 15 industrial sites require some brownfield clean up/testing, with the majority of clean up to be accomplished within six months and without required permits for DEQ. The Tigard Sand and Gravel site is currently an operating mining operation and has been found to require more clean up than the other 13 impacted sites, with an approximate timeline of 16 months. The average cost of brownfield clean up per impacted site is approximately \$55,000 per site. **As a result, \$0.03 per net developable square foot, the smallest dollar cost constraint across all sites.** However, even where costs are minor, environmental remediation is typically the first activity which must occur in the development process.

### Legislative Site Constraints

Furthermore, nine of the 15 sites (60%) need to be annexed into city limits prior to permitting and development. On average, this process is approximately three months, and no site/construction permits can be applied for or issued prior to annexation being complete. This land use process prohibits new users/developers from applying for transportation, water, sewer, and storm construction permits concurrently with annexation, thus adding three months to the overall site readiness timeline for these sites. Additionally, Johnson Economics has estimated that the users/developers' carrying costs for total site/construction costs are approximately \$0.03 to \$0.05 per net developable square foot. For example, if a 30-acre site required annexation, the total carrying costs for the time to accomplish that process is estimated to be \$40,000 to \$65,000.

SUMMARY RESULTS FOR ALL COSTS					
Development Cost Improvements	Number of Sites Impacted	Total Cost	Average Cost per site	Total site net developable acreage (impacted sites only)	Average Cost per Net Developable SF
Water	14	\$ 12,840,000	\$ 917,143	684	\$ 0.43
Sewer	14	\$ 15,731,000	\$ 1,123,643	684	\$ 0.53
Stormwater	15	\$ 12,226,000	\$ 815,067	710	\$ 0.40
Transportation	15	\$ 44,533,885	\$ 2,968,926	710	\$ 1.44
Wetland Mitigation	7	\$ 5,931,375	\$ 847,339	401	\$ 0.34
Slope Mitigation	8	\$ 36,308,500	\$ 4,538,563	473	\$ 1.76
<i>Slope Mitigation without Tigard Sand &amp; Gravel Site</i>	7	\$ 12,032,500	\$ 1,718,929	407	\$ 0.68
Environmental Cleanup	14	\$ 757,500	\$ 54,107	682	\$ 0.03
Average cost per net developable sf					\$ 4.92
Average cost per net developable sf <i>without Tigard Sand and Gravel site</i>					\$ 3.84

### Summary Results

The table below compares each jurisdiction’s sites in terms of net developable acreage, total building sf, as created by the conceptual development plan, and the potential jobs created in each jurisdiction.

Jurisdiction	Number of Sites	Gross Acres	Net Developable Acres	Total Building SF	Shortest Development Readiness Timeline (in)	Longest Development Readiness Timeline (in)	Average Development Readiness Timeline (in)	Potential Induced/Indirect Jobs Created	Potential On-Going Operations Direct Jobs	Potential Job Creation (direct, indirect, and induced) per net developable acre
Forest Grove	5	175	162	2,453,900	15	27	20	1,776	4,126	36
Hillsboro	3	326	243	2,945,300	18	45	31	6,643	4,509	46
Sherwood	1	40	38	312,500	27	27	27	923	616	41
Tualatin	2	114	105	1,602,000	33	78	56	722	2,192	28
Wilsonville	4	172	162	2,060,150	21	39	30	2,017	2,805	30
TOTALS	15	826	710	9,373,850	15	78	33	12,081	14,248	37

### Potential Transportation Improvements that Impact Multiple Sites

In efforts to improve the marketability of multiple sites with one improvement, this project examined which jurisdictions require one transportation improvement that could potentially impact multiple sites. Because this project examines each site individually and does not assume that one site develops before another, it is imperative to examine these potential overlaps as they result in over **\$12 million** of costs (excluding the construction of Huffman Street as described below). The construction of these improvements could spur economic development for multiple sites.

- Forest Grove: Hally Haworth site and the Woodburn Capital site – both require Elm Street half-street improvements, as well as full street improvements to Taylor Street. This is nearly \$1M for Woodburn and \$2M for Haworth.
- Forest Grove: the two Woodfold Marco sites both require the construction of 24th Avenue. The cost for the eastern site is nearly \$1 million and the cost for the western site is \$1.6 million for these two improvements.
- Hillsboro: the construction and extension of Huffman Street from Jackson School to Brookwood Parkway (a portion of which goes through the Van Rose property) will provide required access for the entire North Hillsboro Industrial Area.
- Tualatin: the Tigard Sand and Gravel site is located directly south of the Itel site, and both sites front 124th Avenue, the County’s new arterial road. Both sites are responsible for the full construction and half street improvements of Blake Street, which are approximately \$1.5 million. Half street improvements to 120th Avenue are also required for both sites, totaling approximately \$3.3M.
- Wilsonville: Coffee Creek site 4 is required to construct full street improvements of Java Road, totaling approximately \$1.1 million. Java Road is intended to replace Clutter Road as the through route between Grahams Ferry and Garden Acres Road. By providing this new route, the adjacent sites benefit with increased mobility and access.

### **1. Target Industry Analysis**

The project team compiled information for each site regarding topography, wetlands, site area/configuration, property ownership, infrastructure capacity, highway/rail transportation access, market, and labor force proximity and local development incentives. These factors were considered in the determination of site development opportunities and constraints. This information, along with each city’s policies aimed at attracting targeted business types (derived from adopted economic opportunity analysis or economic strategy documents), helped the project team identify the most prospective clusters for all industrial sites.

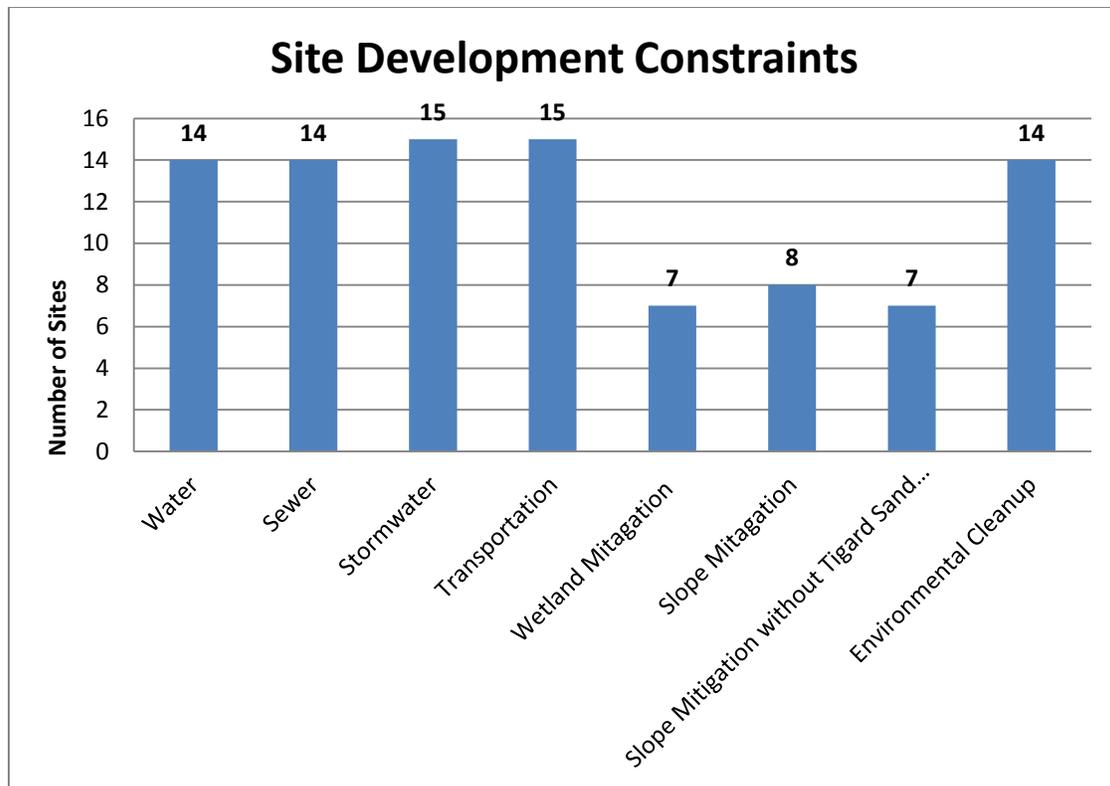
The resulting prospective target industry user recommendations for the industrial site locations are depicted in the table below. Specific information regarding each industrial site can be found in Appendix A, Washington County Industrial Land Site Readiness Project: Preliminary Site Selection Evaluation, as prepared by Mackenzie and Johnson Economics in November 2014.

The ability for Washington County to optimize its market potential (and related job growth) for these or other target clusters will depend on many factors. Notwithstanding the importance of regional and global economic conditions, Washington County and its local government partners will need to ensure that the identified industrial sites can readily accommodate new development in the short-term. Long-term industrial growth will likely require additional development sites and redevelopment locations.

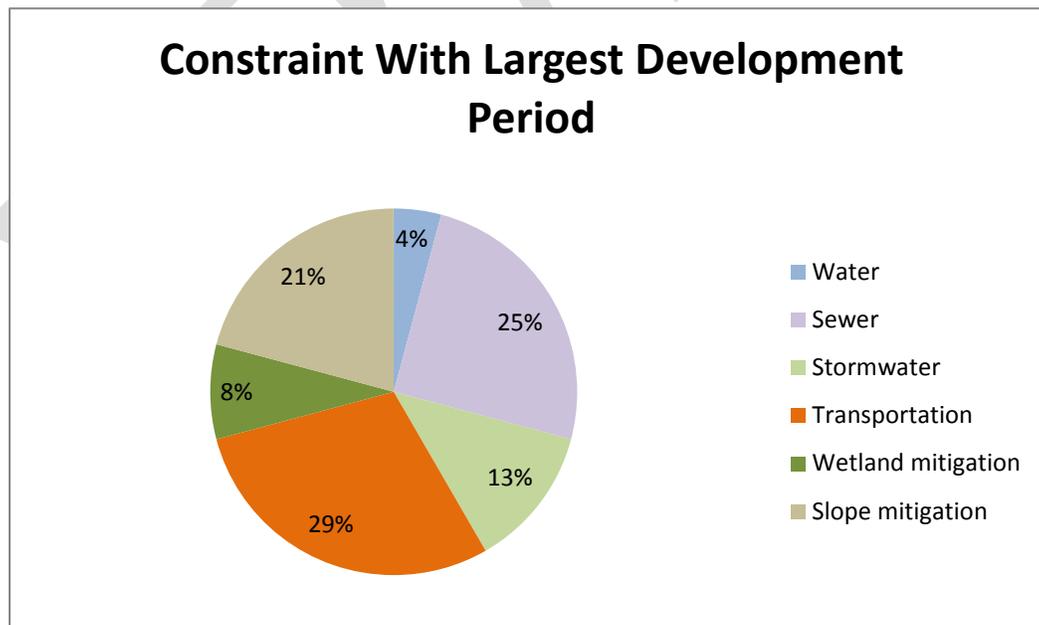
JURISDICTION	NUMBER OF SITES	SITE SIZE DISTRIBUTION (GROSS ACRES)	SELECTED USES
Forest Grove	5	<b>25 - 49: 4</b> <b>50 - 75: 1</b> 75 - 99: 0 100+: 0	2 food processing; single user 1 general/advanced manufacturing business park 1 general/advanced manufacturing; single user 1 advanced/High tech manufacturing campus; single user
Hillsboro	3	<b>25 - 49: 2</b> 50 - 75: 0 75 - 99: 0 <b>100+: 1</b>	1 general manufacturing; two users 2 industrial business park
Sherwood	1	<b>25 - 49: 1</b> 50 - 75: 0 75 - 99: 0 100+: 0	1 high technology manufacturing/campus industrial; single user
Tualatin	2	<b>25 - 49: 1</b> 50 - 75: 0 <b>75 - 99: 1</b> 100+: 0	2 advanced manufacturing/campus industrial; single user
Wilsonville	4	<b>25 - 49: 4</b> 50 - 75: 0 75 - 99: 0 100+: 0	2 industrial business parks 1 general manufacturing/distribution; single user 1 high technology manufacturing; single user
<b>Totals:</b>	<b>15</b>	<b>25 - 49: 12</b> <b>50 - 75: 1</b> <b>75 - 99: 1</b> <b>100+: 1</b>	<b>5 industrial business parks</b> <b>5 general or advanced manufacturing/campus industrial; single user</b> <b>3 high technology manufacturing; single user</b> <b>2 food processing; single user</b>

### 3. Development Timing

Evaluation of the 15 sites shows many of the sites need additional investment. A lack of off-site public utilities such as water, sanitary sewer, stormwater, and transportation are the most common. Although 14 of the 15 sites note some environmental analysis or cleanup, this reflects the assumption that most industrial users would require a Phase I environmental report, and as a result, some additional analysis is assumed to be needed on all sites. Disregarding environmental analysis or cleanup, the top constraint on development is transportation infrastructure, with 15 of the 15 sites requiring additional investment in transportation facilities to support the conceptual development plan.



With the distribution of constraints in the table above, it is important to also understand the projected timing to address each of these constraints and how the constraints impact the overall site time to delivery. In several cases, the time to achieve development readiness was determined by more than one constraint. The table below shows the distribution of constraints.



This chart shows utilities, sewer, and transportation infrastructure have the longest time constraints to site readiness.

In addition to improving timing, the cost of infrastructure and mitigation for slope, wetlands, and environmental conditions has an impact on market absorption. Direct public investment to address off-site issues can have significant positive impacts on development readiness and net developable acres. As noted above, many of the sites in this analysis already have roadways and utility infrastructure in place to serve the conceptual development. The costs to construct infrastructure not only impact the timing, but also impact the financial feasibility of a project. The sites with critical infrastructure deficiencies or onsite constraints are not likely to attract large firms if the costs for these elements are left solely to the private market.

Simplifying and expediting permitting and other pre-development processes can have a significant financial impact on project feasibility. Activities that reduce uncertainty and delay will implicitly reduce time and risk costs and make a site more financially feasible. The average time to achieve development readiness of the 15 sites in the study was 30 months; 23 months for Tier 2 sites and 49 months for Tier 3 sites. That is an average of two and four years respectively. Decreasing the permitting timelines would not only decrease the time to develop, it would also decrease development costs due to the time value of money.

The site readiness schedules were examined for all 15 sites in order to determine the largest contributor to permitting timelines (annexation, water, sewer, storm, transportation) for each site in terms of most severe constraint from a timeline perspective. Public infrastructure improvements was the most significant permitting timeline constraint on many of the sites.

It was found that 10 of the 15 sites have one or two constraints with a measurable impact on the site development period length. Annexation and transportation constraints were found to be most significant. If these permitting timelines could be shortened, they would have the largest impact on the site readiness timeline, in the 3-6 month range. These 10 sites have infrastructure timing constraints that can be improved by capital investments by jurisdictions. The remaining five sites not listed in the table below have on-site development constraints with longer timelines than the infrastructure construction timelines. In these cases, legislative changes would impact their site readiness timelines, but public investment is not possible because the specific on-site constraints (wetlands, slope, fill, etc.) are located on private property and are development related. Property owners would have to make appropriate actions to improve the timeline to readiness of these issues because direct public investments cannot benefit a single property owner. From a time perspective, these five sites have longer site readiness timelines; however, public infrastructure deficiencies isn't the most limiting factor like it is for nearly 65% of the sites.

Jurisdiction	Site Name and ID	Most Significant Time Constraint
Forest Grove	Site 63 – Woodburn Industrial Capital	Transportation
Forest Grove	Site 64 – Woodfold-Marco East	Sewer
Forest Grove	Site 65 – Woodfold-Marco West	Transportation
Forest Grove	Site 112 – Hally Haworth	Annexation, Transportation
Hillsboro	Site 101 – Vanrose Farms	Annexation, Sewer, & Transportation
Tualatin	Site 66 - Itel	Annexation & Transportation
Wilsonville	Site 59 Coffee Creek 2	Annexation; Sewer
Wilsonville	Site 60 Coffee Creek 3	Annexation, Sewer, Storm
Wilsonville	Site 61 Coffee Creek 4	Annexation, Transportation
Wilsonville	Site 117 - Chamberlin	Annexation, Sewer

Front end due diligence to identify issues and early investments in preparing sites for market readiness can have a significant impact on their viability by reducing time and risk to the developer or user. Due diligence that identifies site constraints and the time to address them will highlight those that have low costs but long timeframes. These types of constraints provide a worthy place to focus initial efforts.

It is imperative that these constraints are understood from the perspective of cost, time, and risk. For sites that are close to economic viability, tools that reduce risks and time to market are likely to be most efficient. Sites with more severe constraints will require more comprehensive strategies that include financial tools to bring them to the market.

It is important to note that each site development schedule was created uniquely for each site by examining each constraint individually. The consultant team evaluated the order of magnitude for each site development parameter and determined the order of operations for each site. In most cases, annexation and environmental clean up were the first permitting/construction activities on all sites. This was because the new user/developer is unable to obtain any other site/construction permits without first being annexed into a jurisdiction. Additionally, the environmental clean up can be done without obtaining any permits from DEQ. Furthermore, the schedules were created by first determining the longest constraint (permitting and/or construction) and ending all other required construction activities with the longest duration. This is done so that all construction activities end at the same month, thus reducing carrying costs for construction loans/activities.

Specific information regarding each industrial site can be found on the public utility infrastructure sheets of this report, included with each site analysis, as prepared by Mackenzie in June 2015. Additional information is found in Appendix B.

#### **4. Economic Analysis**

Johnson Economics conducted an evaluation of the financial feasibility of site development under assumed conditions as well as the potential economic and fiscal impacts of site development. Our methodological approach and detailed findings are outlined elsewhere in this report, with findings summarized here.

Taken together, our analysis evaluated 15 sites in five jurisdictions across the County:

- Forest Grove
- Hillsboro
- Sherwood
- Tualatin
- Wilsonville

#### **Acreage and Industrial Capacity**

Together, these sites combined to reflect approximately 700 acres of net-developable industrial land. Throughout our evaluation process, the consultant team in coordination with local and county stakeholders assumed a range of uses on each site - up to four different use types were considered for each site. A conceptual layout was developed for the use selected. At standard/assumed industrial densities by use type, the sites in our study have a combined industrial capacity of over 14,000 direct jobs at full build-out with an additional 12,000 of induced and indirect jobs created.

## Summary of Site Development Costs and Timing

The sites in our analysis were found to be in various stages of readiness, with on-site, off-site, and non-physical constraints precluding immediate development potential. Taken together, Mackenzie's evaluation of eight cost factors (water, sewer, stormwater, and transportation infrastructure; wetlands, slope, surcharge, and environmental constraints) estimated that as much as \$128 million in constraints exist on evaluated sites. It was further determined that inadequate off-site public infrastructure (transportation, water, sewer, and storm) was the primary factor limiting development viability—comprising roughly 65% of the cost (\$85 million). Of this, transportation infrastructure was single largest limiting factor, with a total of \$45 million of improvements on 15 sites, approximately \$3 million per site on average. Among on-site constraints, wetlands and slope mitigation were the most common and costly issues, impacted 45% and 53% of the sites, respectfully.

This portion of the project evaluates the economic impact of the target industry clusters. The deliverable for this task will be a report analyzing:

- Market readiness for development under existing conditions for the targeted key cluster(s).
- Cluster market impacts of development constraints based on an economic return gap analysis.
- Economic impacts (return on investment) of the development activity, reconciling public benefit with the estimated public capital costs.

Specific information regarding each industrial site can be found within the detailed data on each site in this report, as prepared by Johnson Economics in June 2015. Additional information can be found in Appendix F.

### **5. *Marketing and Implementation Plan for Sherwood and Tualatin***

As part of Task 4 of this project, the consultant team is completing a Market Analysis and Business Recruitment Strategy for Sherwood's Tonquin Employment Area (TEA) and the Southwest Tualatin Concept Plan (SWCP) area, which were brought into the urban growth boundary by Metro between 2002 and 2004. In 2010, the cities adopted concept plans for the TEA and SWCP, but although several years have now passed, the area has not yet begun to develop. The intent of the project is to re-examine the study areas to supplement the concept plans by identifying concrete steps that would lead to development.

The project entails assessing current market conditions to evaluate the suitability of the cities' target industries, while also identifying transportation and infrastructure needs throughout the TEA and SWCP. Due to the large area and the high cost of required improvements, the consultant team is recommending a phased approach to full buildout. Phasing development allows for construction of necessary transportation and infrastructure systems that can serve each phase while accommodating incremental finance strategies that pay for construction in pieces rather than throughout the entire study area at one time. Finally, to build awareness of the development opportunities in the TEA and SWCP, the project also outlines actions to raise the profile for effective marketing to potential businesses in the target industries.

### **6. *Public Outreach***

The planning for the public outreach plan for this project is currently underway and will be finalized after the June 1, 2015 meeting. This section will be written once public meetings have been selected and organizations have been identified.

## D. CONCLUSIONS

The analysis of the 15 industrial land sites reached the following conclusions:

- Tier 2 and 3 sites will require new investment, policy actions, and time to become development ready.
- Out of the 15 industrial land sites analyzed, only three sites (20%) had 50+ net developable acres, with one site with 100+ net developable acres.
- Based on this analysis, more detailed and in depth than the Phase 1 regional industrial inventory analysis, 3 of the 15 sites were determined to have less than 25 net developable acres.
- Funding for roadways, water, sewer, and stormwater infrastructure is a critical limiting factor to site readiness and market viability.
- The study found that in general, the soils at each of the sites are expected to accommodate the concept developments without undergoing excessive settlement. This conclusion is based on historical development at adjacent sites. Site-specific soil information is required to confirm actual soil behavior during development.
- The metro large lot restriction on the Tigard Sand and Gravel site requiring one 100-acre site is not achievable given the existing easements, parcel shape, wetlands, and regional transportation needs for connectivity and cross circulation.
- The cost of off-site infrastructure is the primary challenge to site readiness, comprising approximately 66 percent of total site ready development costs. Transportation costs are the largest contributor to off-site infrastructure costs and were nearly 35 percent of the total site ready development costs.
- Direct public investment to address off-site infrastructure needs and costs can have a significant impact on site readiness and marketability.
- On-site issues vary by site per each selected targeted user profile. An understanding of each site's constraints and the time to address them will differ with different users' unique needs.
- The longer it takes a developer or user to address constraints and the greater the uncertainty about permitting processes, the higher the project cost and the further away from financial feasibility the project is. Front-end work on investigating and preparing sites for market readiness can have a significant impact on their viability and marketability.
- A willing property owner and motivated jurisdiction are critical to moving sites to market and improving marketability. Nearly 75% of these sites have owners who are motivated to sell at industrial land prices.
- While all 15 sites are currently within the Metro Urban Growth Boundary, none of the sites are ready for development within a year and require significant infrastructure improvements to support full utilization for job growth. With business decision timelines decreasing each year, it is imperative that the supply of development ready land increases to provide more options to the market.

- If/when these 15 industrial sites develop with the proposed 9.4 million sf of buildings, the County could expect to see over 14,000 direct jobs (on site operations) plus an additional 12,000 indirect and induced jobs.
  - This results in almost 20 direct jobs and almost 17 additional indirect and induced jobs per net developable acre.
  - This results in one employee for every 650 sf of building area.
  - This results in one new indirect/induced job created for every 800 sf of building area.

### **Next Steps**

- Continue to evaluate and inventory sites within Washington County to increase the inventory of land and the understanding of site readiness.
- Identify strategic public infrastructure investments that can improve readiness/marketability of multiple sites (i.e., one improvement that impacts three sites).
  - Evaluate phasing and identify how a single or phased investment can impact multiple sites (for example, Forest Grove, Wilsonville, Tualatin/Sherwood).
- Develop a strategy to target investments in public infrastructure to improve the readiness of targeted industry development sites. The transportation infrastructure investments would impact the largest number of sites.
- Initiate a stakeholder outreach program to inform community leaders of the results of this study and to coordinate future efforts on business development and recruitment.