



# HARBOR ReDI INDUSTRIAL SITES ANALYSIS

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*Investing in Portland's Future*

**PDC**

PORLAND DEVELOPMENT COMMISSION

**GEOENGINEERS** 

**GROUP**  
**MACKENZIE**

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## 1. PROJECT SUMMARY

The Portland Development Commission (PDC) contracted with Group Mackenzie and GeoEngineers to provide technical assistance for the Harbor Redevelopment Initiative. The purpose of this study is to 1) conduct a general assessment of the development potential for each of the 18 sites within the Harbor ReDI inventory of currently vacant and/or underutilized industrial property, and 2) create a development matrix that ranks the individual sites from least constrained to most constrained for development. This information will be used as a guide to further site specific analysis and spur redevelopment opportunities.

This study is one part, of several, that are necessary to fully understand development constraints and opportunities and to begin implementation of the STAMP recommendations. The report uses a high level analysis to identify development constraints and provides a comparative ranking of their development potential. The report should not be used to draw any conclusions as to the constraints that may, or may not, influence the development potential or liability associated with specific sites.

### ***The Harbor ReDI Site Evaluation***

This Harbor ReDI Industrial Sites Analysis was prepared by Group Mackenzie, along with GeoEngineers. It is important to note that this analysis does not include any on-site testing or information, and is solely based upon readily available, publicly accessible information. Staff at the PDC and the Bureau of Planning provided GIS data that is the primary source of information for the report. No property owner involvement or information was collected to complete this analysis.

This analysis evaluates 18 sites that are zoned Heavy Industrial (HI), with 12 of the sites having one of two industrial overlay zoning designations, River General (g) and River Industrial (i). The remaining 6 sites have no river overlay designation. All of the sites are within the boundary of the current River Plan – North Reach study area. The purpose of this first step is to analyze the most critical known constraints for industrial development and then rank each site to identify the best candidates for further analysis.

The analysis on each of the 18 sites included compilation of physical information such as site size, configuration, topography; natural constraints such as habitat, wetlands, and flood plain; environmental constraints; and infrastructure availability such as highway/truck access, railroad access, and public utilities.

Each of the sites was evaluated based on upland and in-water contamination, river depth, foundation rating, in-water structures, highway/freight access, railroad access, off-site infrastructure and configuration.

## **CONCLUSION**

The resulting matrix scores reflect a comparative analysis for the factors that were determined to be influential in the development potential of industrial parcels. The results of this analysis can be used to inform further discussion on which sites should receive additional development planning. Due to the limitations of the analysis, which include work scope and the exclusive use of secondary data sources, final conclusions as to the development constraints or potential of each site can not be made. Each site has unique considerations that can only be addressed with more site specific analysis.

## 2. PROJECT OVERVIEW

Group Mackenzie and GeoEngineers provided technical assistance to the Portland Development Commission (PDC) for the Harbor ReDI project in the Willamette River's North Reach area. This analysis is intended to begin implementation of the National Brownfields Association's Site Technical Assistance for Municipal Projects (STAMP) recommendations for assisting in the redevelopment of blighted industrial brownfields located along the Willamette River.

PDC in partnership with the City of Portland Bureau of Planning and Sustainability and the Bureau of Environmental Services along with the Columbia Corridor Association, METRO, PGE, the Port of Portland, and the Oregon Economic and Community Development Department (Coalition) share a common goal in the desire to clean up contaminated sites and redevelop vacant and underutilized industrial land for new industrial uses in the North Reach of the Willamette River in Portland.

The Portland Harbor possesses unique market attributes: water access, highway and road access, and serviceability by two national rail lines. These factors make the properties along the harbor an ideal location to site modern industry. To this end, investment harbor-wide has been strong with the City tracking over \$455 million in private and public sector investments on 36 sites. These investments are being made by long term operating businesses on "cleaner" sites leaving behind over 400 plus acres of underutilized, contaminated and economically depressed land in the Portland Harbor.

The Portland Harbor is impacted by contaminants found in soil, river bottom sediments, and groundwater from past industrial operations. Environmental uncertainties regarding the cost to remediate, amount of time it will take to complete clean up and how liability will be apportioned among past and present property owners has chilled property transfers and sales as well as overall development. This situation has caused properties where there is market demand to sit idle and undeveloped because of the environmental uncertainty - a classic example of industrial brownfields. This uncertainty is resulting in jobs not being created, tax dollars being lost and interested buyers and investors looking to other localities.

The purpose of this study is to:

- Conduct a general assessment of the development potential for each of the 18 sites within the Harbor ReDI inventory of currently vacant and/or underutilized industrial property.
- Create a development matrix that ranks the individual sites from least constrained for development to most constrained that can be used as a guide to further site specific analysis to spur redevelopment opportunities.

It is understood that this study is one part, of several, that are necessary to fully understand development constraints and opportunities as well as to begin implementation of the STAMP recommendations to ready these 18 properties. The following report uses a high level analysis to identify development constraints and provides a comparative ranking of their development potential. The report should not be used to draw final conclusions as to the constraints that may, or may not, influence the development potential or liability associated with any specific site.

### **The Harbor ReDI Site Evaluation**

Group Mackenzie, along with GeoEngineers, has prepared this Harbor ReDI Industrial Sites Analysis. Staff at both the PDC and the Bureau of Planning and Sustainability provided GIS data that is the primary source of information for the report. Additional widely available geotechnical and environmental data available at the time this report was prepared were used. It is important to note that this analysis does not include any on-site inspections, testing or information, and is solely based upon limited readily available, publicly accessible information.

No property owner involvement or information has been collected to complete this analysis and detailed reviews of files maintained by DEQ and EPA were not conducted.

This analysis evaluates 18 sites that are zoned Heavy Industrial (HI), with 12 of the sites having one of two industrial overlay zoning designations, River General (g) and River Industrial (i). The remaining 6 sites have no river overlay designation. All of the sites are within the boundary of the current River Plan – North Reach study area. Six of the sites are located in two separate Urban Renewal Areas (URA's); the remaining sites are not within URA's. The sites were chosen by PDC as part of the ongoing effort that began with the STAMP process to serve as "case studies" for development opportunities in the city. The purpose of this first step is to analyze the most critical known constraints for industrial development and then rank each site to assist in identifying the most likely candidates for further analysis. The 18 sites have been identified on the following aerial perspectives and are also identified in the vicinity map in Section 6.

This report is organized to first present, in Section 3, an overview of site constraints that largely affect the properties included in this analysis such as zoning and contamination issues. Following this section, in Section 4, is a description of the methodology used to evaluate the 18 sites and the findings of this analysis. Each of the sites was evaluated based on the following factors:

- Upland and In-water Contamination
- River Depth
- Foundation Rating
- In-water Structures
- Highway/Freight Access
- Railroad Access
- Off-site Infrastructure
- Configuration

At the conclusion of Section 4, a methodology scoring table explaining the methodology and ranking factors is included. In Section 5, the detailed matrix is provided which scores each site to reflect a comparative analysis based upon the above factors and methodology described in Section 4. The matrix organizes all 18 sites into three categories based upon their proximity to the Willamette River and zoning overlays. At the end of Section 5, each site is graphed by category to display the overall score based upon the factors and methodology developed. In addition, a median line indicates the middle score of each category for reference purposes.

Section 6 includes individual site sheets that detail the information used in the matrix, as well as additional information.

Specifically, for each of the 18 sites, the site analysis sheets include:

- Site location and plan district and urban renewal area information
- Physical information such as site size, configuration, topography
- Natural constraints such as habitat, wetlands, flood plain
- Sources of upland and in-water contamination
- Zoning and applicable overlays including environmental
- Infrastructure availability such as highway/truck access, railroad access, and public utilities

While not all information presented in the individual sheets was factored in the matrix, it was important to identify additional constraints on the property using the information provided. The information on these sheets is intended to be used to guide subsequent development-specific analysis on these properties, and is not factored into each site ranking on the matrix included in





### 3. OVERVIEW OF SITE CONSTRAINTS

#### A. Zoning

Group Mackenzie performed a review of the City of Portland's River Plan – North Reach which encompasses all of the 18 Harbor ReDI sites. We reviewed the available documentation and this section provides a general overview of the proposed regulations as they pertain to development potential for the 18 sites. All sites share the same base zone of IH Heavy Industrial and are located within the City's Industrial Sanctuary on the Comprehensive Plan. Additionally, all sites except for Site 3 (Linnton Plywood) are designated as being Regionally Significant Industrial Area's by Metro.

#### River Overlay Zones (i)

10 of the 18 sites contain the proposed River Industrial (i) overlay. One of the primary objectives established in the River Plan - North Reach study is to continue to support river-dependent and river-related uses and the industrial land supply in the working harbor as a long term public resource. The primary implementing mechanism for this objective is the retention and modification of the existing River Industrial (i) overlay. In summary, the (i) overlay "encourages and promotes the development of river-dependent and river-related industries, and strengthens the economic viability of Portland as a marine shipping and industrial harbor."

The definitions of these determining terms are listed below:

**River-dependent.** A use which can be carried out only on, in, or adjacent to a river because it requires access to the river for waterborne transportation or recreation. River-dependent also includes development, which by its nature, can be built only on, in, or over a river. Bridges supported by piers or pillars, as opposed to fill, are river-dependent development.

**River-Related.** A use or development that is not directly dependent upon access to a water body but which provides goods or services that are directly associated with river-dependent land or waterway use or development, and which, if not located adjacent to water, would result in a public loss of quality in the goods or services offered. Uses that are not directly dependent upon access to a water body, but have infrastructure on-site that can transfer cargo or people to or from a water body, and are directly dependent upon access to an on-site rail right-of-way for transportation purposes are considered to be river-related. Accessory businesses that are located on sites with a primary river-dependent or rail-dependent use and that are integral to the industrial operation of the primary use (e.g. a contractor) or expand the use of specialized facilities of the primary use are considered river-related. Residences (including houseboats), parking areas, spoil and dump sites, roads and highways, restaurants, businesses, factories, and recreational vehicle parks are not generally considered dependent or related to water. Recreational trails and viewpoints adjacent to the river are river-related development. Bridge exit and entrance ramps supported by piers or pillars, as opposed to fill, are river-related development. Removal or remedial actions of hazardous substances conducted under ORS 465.200 through 465.510 and 475.900 are considered river-related development for the duration of the removal or remedial action.

The 10 sites which contain this overlay are required to demonstrate compliance with the above defined terms for primary uses. Uses which cannot meet the above definitions may be allowed if approved through a River Review which is planned to be implemented with the adoption of the River Plan – North Reach zoning. The Plan identifies this as a Type II discretionary process, with no estimated timeline for approval.

#### Restoration Sites

The River Plan – North Reach study indicates several restoration sites where habitat restoration is proposed to occur. These sites were identified based on input from the various stakeholders included in the City study, and were then refined by City staff with the help of staff from state and federal agencies. These areas are planned to be purchased by the City, restored and managed to preserve the key natural resources characterized in this area. These sites are planned to be restored and managed for long-term public benefits such as water quality, flood storage, fish and wildlife habitat and connectivity. Portions of 7 of the sites included in this study are designated as Restoration sites which effectively prohibit development opportunities. The boundaries of the restoration areas have not been explicitly defined, however, and as such there may be some opportunities to negotiate with the City to allow portions of these sites to be developed. The restoration sites have been designated on the Vicinity Map located in Section 6.

#### B. Magnitude of Contamination by Hazardous Substances

The development of properties near the Portland Harbor Superfund site has been severely restricted by actual or perceived environmental liabilities associated with upland and in-water contamination. None of the properties evaluated for this study are currently included within the boundaries of the Portland Harbor Superfund site, with the possible exception of small riverfront portions of the properties<sup>1</sup>. The properties may; however, share partial responsibility for contamination in the Portland Harbor Superfund site due to historical or ongoing activities and conditions that may have contributed to contamination in the river. Environmental liabilities associated with properties adjacent to or near the Portland Harbor Superfund site broadly include costs for upland and in-water remedial investigation, remediation of hazardous substances, Natural Resources Damage Assessments (NRDA), and legal fees.

#### Data Sources

GeoEngineers reviewed data from the following sources to evaluate the magnitude and extent of contamination at each property:

- The Oregon Department of Environmental Quality (DEQ) Environmental Cleanup and Site Investigation (ECSI) database.
- The DEQ Facility Profiler online database.
  - *The Portland Harbor RI/FS, Upland Groundwater Data Review Report, River Mile 2 – 11, Lower Willamette River*, prepared by Groundwater Solutions, Inc., dated June 2, 2003.
  - *Milestone Report for Upland Source Control at the Portland Harbor Superfund Site*, prepared by the Oregon Department of Environmental Quality, dated September 2008.
  - *Portland Harbor RI/FS, Comprehensive Round 2 Site Characterization Summary and Data Gaps Analysis Report*, dated February 21, 2007.
- Information obtained during telephone interviews with DEQ personnel and other publicly available sources.

<sup>1</sup> The Oregon Division of State Lands (DSL) owns the bed of the Willamette River to the ordinary low water mark. Upland properties that extend to the ordinary low water mark may include narrow bands of regularly submerged areas that are included within the Portland Harbor Superfund site. Therefore, portions of some properties may be included within the boundaries of the Portland Harbor Superfund site.

## Environmental Liability Rankings

GeoEngineers ranked environmental liabilities at each property based on the apparent significance of contamination at: 1) upland portions of the property and 2) in the Willamette River near the properties. The environmental liability rankings are based on the data sources listed above.

In-water contamination was deemed “significant” if the contaminated sediment was included in a portion of the river that was designated as an initial Area of Potential Concern (iAOPC) by the Lower Willamette Group in *Portland Harbor RI/FS, Comprehensive Round 2 Site Characterization Summary and Data Gaps Analysis Report*, dated February 21, 2007. The iAOPCs were delineated based on a limited amount of data and are likely to change in the future.

The source(s) and responsibility for contamination in the Willamette River adjacent to or near each evaluated property have not been determined. The Portland Harbor remedial investigation and feasibility study is ongoing. No final determinations have been made regarding the scope of necessary cleanup in the Portland Harbor or the allocable shares for the costs for the investigation and remediation of the Portland Harbor. Therefore, the property rankings presented herein may change in the future, based on new or additional information and some property owners may bear liabilities significantly less than or greater than implied by the ranking system. Despite the uncertainty regarding the boundaries of final AOPCs and responsibility for in-river contamination, the iAOPCs provide a useful tool for evaluating the relative liabilities associated with contaminated sediment near each property.

#### 4. METHODOLOGY

A series of factors were identified to analyze the constraints and opportunities for each of the 18 sites. These factors are described in greater detail below. For each factor a score of 1 to 4 points was used to reflect the level of constraint or opportunity. Ratings shown between two levels (e.g., 2.5) are not intended to imply a higher degree of precision, but instead, indicate a perceived intermediate ranking for a site that possesses attributes of the rating levels above and below the number shown. One point was the best score; four points was the worst score. Each factor was then given a weight, either 40, 30, 20 or 10, to reflect the level of impact that factor has to the overall development potential; the greater the weight, the more impact. All of the factors for each site were totaled, based on the score, multiplied by the weight, to determine a comparative ranking of the 18 sites. The result of this methodology is the lower the score, the fewer constraints; therefore the lower the score the higher the development potential. It is important to emphasize that this is not an absolute scoring system, but a relative system, comparing the 18 sites to each other, as to their development constraints and opportunities. It is also important to recognize that the scores presented herein are based on a limited evaluation of data and further detailed evaluation of the sites will result in more refined information.

The 18 sites were sorted into three categories in the matrix by zoning overlay and adjacency to the water. Ten of sites are in the On-Water, River Industrial overlay category. Six of the sites are in the Off-Water, no overlay category. Two of the sites are in the On-Water, River General overlay category.

##### A. Upland Contamination – Weight of 40

Each property was assigned one of the following classifications, based on the potential significance of upland contamination:

1. Contamination conditions were designated a ranking of 1 if 1) contamination has not been documented at upland portions of the property; 2) documented contamination is limited to soil or groundwater or 3) DEQ has issued a no further action determination for the site. The costs for addressing contamination at the property and liability for contamination in the river under these conditions are expected to be relatively low.
2. Contamination conditions were designated a ranking of 2 if contamination, consisting of relatively non-recalcitrant chemicals (i.e. petroleum hydrocarbons and limited numbers of metals) has been documented at upland portions of the property in soil and groundwater, but no ongoing contribution of hazardous substances to the Willamette River has been confirmed. The risks that petroleum compounds pose to human health are commonly lower than the risks posed by other hazardous substances. Due to the lower risks, the degree of necessary cleanup, and the associated costs are generally lower than those that would be required for other more toxic or hazardous compounds.
3. Contamination conditions were designated a ranking of 3 if contamination, consisting of recalcitrant chemicals (i.e. dioxins and furans, polychlorinated biphenyls, herbicides, pesticides, or pentachlorophenol), has been documented at upland portions of the property in soil and groundwater, but no ongoing contribution of hazardous substances to the Willamette River has been confirmed. The risks that these compounds pose to human health are generally higher than the risks posed by the substances described for sites receiving a score of 2 and these compounds are often relatively challenging to remediate. Due to the higher risks to human and ecological health and the associated remediation challenges, the degree of necessary cleanup and the associated costs are generally higher than those required for less toxic or hazardous compounds.

4. Properties were given a score of 4 if the property is a confirmed source of contamination to the Willamette River or contaminated soil at the site has been remediated with an engineered cap. Properties are considered poor development candidates under these conditions because: 1) as an ongoing source of contamination to the river, owners of these properties may be required to undertake measures to prevent the ongoing migration of contaminants to the river; 2) due to the documented contaminant contributions to the river, the owners of these properties may bear a relatively large share of liability for contamination in the Portland Harbor Superfund site; 3) mandatory contaminant source control measures and/or a permanent engineered cap may significantly restrict redevelopment potential.

*Appendix 1 presents a summary of environmental liability rankings related to upland contamination at each property.*

##### B. In-Water Contamination – Weight of 30

Each property except those in the Off-Water, No Overlay category, was assigned one of the following classifications, based on the potential significance of contamination in the Willamette River near the properties:

1. Sediment conditions were designated a ranking of 1 if significant contamination<sup>1</sup> has not been documented in the Willamette River adjacent to the property or adjacent to the properties immediately upstream and downstream of the site. Due to the apparent absence of significant site-derived contamination in the river, the degree of potential liability for contamination in the Portland Harbor Superfund site is likely to be relatively low.
2. Sediment conditions were designated a ranking of 2 if significant contamination has not been documented in the river adjacent to the subject property, but has been documented in the river either immediately upstream or downstream of the subject property. The apparent absence of significant sediment contamination adjacent to the property suggests that the site may not be a source<sup>2</sup> of contamination to the river. Some liability may be associated with sediment contamination immediately upstream or downstream of the property because there is potential that some of the contamination in those areas originated at the subject property.
3. Sediment conditions were designated a ranking of 3 if significant contamination has been documented adjacent to the property and adjacent to properties either upstream or downstream of the subject property. The presence of significant sediment contamination at the property suggests that the site could be a source of contamination to the river. The presence of significant sediment contamination adjacent and upstream or downstream of the subject property may indicate that site-derived contaminants have migrated from the subject property to these areas. Properties that meet these conditions may be subject to significant liability for contamination in the river.
4. Sediment conditions were designated a ranking of 4 if significant contamination has been documented at the property and at adjacent properties upstream and downstream of the subject property. These conditions suggest that the property may be a significant source of

<sup>1</sup> Sediment contamination was deemed “significant” if the affected sediment is included in a portion of the river that was designated as an initial Area of Potential Concern (iAOPC) by the Lower Willamette Group in *Portland Harbor RI/FS, Comprehensive Round 2 Site Characterization Summary and Data Gaps Analysis Report*, dated February 21, 2007.

<sup>2</sup> Source area descriptions refer to current and historical sources.

Sites within the Off-Water, No Overlay category were not inventoried for this constraint as they do not have river frontage and received an N/A. Appendix 2 presents a summary of environmental liability rankings for related to contamination in the Willamette River near each property.

#### C. River Depth – Weight of 30

GeoEngineers reviewed existing aerial photography and bathymetric maps to provide a ranking of river accessibility. We assumed that deeper water adjacent to the site would be considered more favorable, as to allow the passage of larger ships without dredging. Bathymetric data show that water depth can vary along the river within the site boundaries, resulting in some sites falling in intermediate rankings. We ranked the sites as follows, based on the water depth adjacent to the site:

- 1 = (depth to bedrock <30')
- 2 = (depth to bedrock 30-60')
- 3 = (depth to bedrock 60-90')
- 4 = (depth to bedrock >90')

Sites within the Off-Water, No Overlay category were not inventoried for this constraint as they do not have river frontage and received an N/A.

#### D. Foundation Rating – Weight of 30

GeoEngineers reviewed existing geologic maps and aerial photography, as well as existing data in reports for nearby properties to develop our rankings. We considered anticipated depth to bedrock as a primary concern for the sites. We anticipate that sites shown with shallower depth to bedrock will result in less liquefaction settlement during a design level earthquake, and will allow for more cost-effective foundation alternatives. Our estimates are based on generalized geologic mapping. Actual depth to bedrock will likely vary, and should be confirmed in the field by means of drilled borings. We ranked the sites as follows:

- 1 = (water depth >40')
- 2 = (water depth 20-40')
- 3 = (water depth 10-20')
- 4 = (water depth 0-10')

Appendix 3 presents a summary of the geotechnical ratings for each property.

#### E. In-Water Structure – Weight of 20

Utilizing current aerial photography (2007) as well as GIS information from the Bureau of Planning and Sustainability, each site was inventoried as to whether or not existing in-water structures existed. The importance with this category is that with the River Industrial (i) zoning overlay, uses are required to demonstrate that they are ‘river-dependent’ or ‘river-related’. Per review of the proposed River Plan – North Reach documents, this definition is being revised to require a user have the ability to access the river, or have access to a railroad connection. Based upon the existing conditions of each site, those with existing in-water structures received the highest value (1 point), and those without structures received the lowest point score (4 points). It is assumed that sites with existing structures will have easier permitting processes with the relevant agencies, which resulted in the highest ranking (i.e., 1 point). It is important to note that no physical review as to the viability of the existing structures was included in this analysis. This category does not apply to the six sites in the off-water, no overlay category.

#### F. Railroad Access – Weight of 20

As with the in-water structure category, railroad access was important to identify given the use restrictions associated with the River Industrial (i) zoning overlay. In addition, due to the complexities with obtaining and revising a rail spur, this category was important to understand. Utilizing existing GIS data, each site was inventoried to understand the existing, and proximity to, rail service. Sites with an existing spur were given the highest ranking (1 point) due to the assumed fact that they already had a switch from the main line which is difficult to obtain. It should be noted, that sites with existing rail spurs may actually be a development constraint if they need to be removed/relocated in order to efficiently develop a site, however for the level of specificity that this analysis performs, this was not taken into account. The levels of ranking are reduced based upon the proximity of rail infrastructure with a (2) for sites with rail abutting, a (3) for sites with rail within ¼ mile, and (4) for sites with rail more than ¼ mile. This category only applies to those sites within the On-Water, River Industrial Overlay as these are the sites which are required to have a rail or water connection per the proposed (i) zoning overlay. This category was noted as not applicable for the remainder of the sites.

#### G. Off-Site Infrastructure – Weight of 20

GIS data demonstrating existing public utility lines for the 18 sites was reviewed for this category. In addition, the 2007 Working Harbor Reinvestment Strategy analysis performed by the City of Portland was included as it identified the capacity of off-site public infrastructure for 11 of the 18 sites. Costly upgrades were identified for 6 of the sites, however as all of the sites were not inventoried for capacity, this factor could not be included in the matrix. As such, those sites with identified upgrades are denoted in the matrix with an asterisks and the individual site sheet list these identified costs.

Utilizing existing GIS data, each site was inventoried for its ability to be served by the three major public utilities: water, sewer, storm or combine storm/sewer. If a site currently had all three systems on or abutting the site, the highest ranking (1 point) was provided. The levels of ranking were reduced based upon the number of facilities available and then by proximity. A (2) was given to sites with two of the public facilities, a (3) was given for site with one of these facilities, and a (4) for sites not served by public utilities. It should be noted that capacity of the existing lines was not inventoried, as specific development plans are not included with this analysis.

Current stormwater regulations may require redevelopment of existing outfalls to the Willamette River and will be subject to Environmental or River Review. These Type II procedures require additional time and review to the development approval process. Pending site design, additional costs may be associated with water quality and stormwater detention requirements.

that were identified as flagged or jogged were determined based upon review of current lot boundaries.

## Results of Analysis

The next section in this report presents the results of the site analysis. The Site Evaluation Matrix shows the relative ranking of the individual sites in the three different categories. Following the matrix is a set of graphs, displaying the sites relative to the median score for each category. These graphs display how each site compares with one another, with half of them above the median and half below the median.

## Limitations

The matrix scores reflect a comparative analysis for the factors that were determined to be influential in the development potential of industrial parcels. The information used to create the matrix was based on the entire parcel areas indicated by PDC and no attempts were made to evaluate what portions of the parcels were impacted by the ranked development constraints (i.e., no attempts were made to evaluate the “developable” portions of the properties). The results of this analysis can be used to inform further discussion on which sites should receive additional development planning. Due to the limitations of the analysis, which include work scope and the exclusive use of secondary data sources, final conclusions as to the development constraints or potential of each site can not be made. Each site has unique considerations that can only be addressed with more site specific analysis.

## Site Summaries

The following maps and graphics present additional site specific detail based upon the information provided by the PDC and Bureau of Planning and Sustainability. The first map provides additional vicinity context by showing all 18 sites within the North Reach

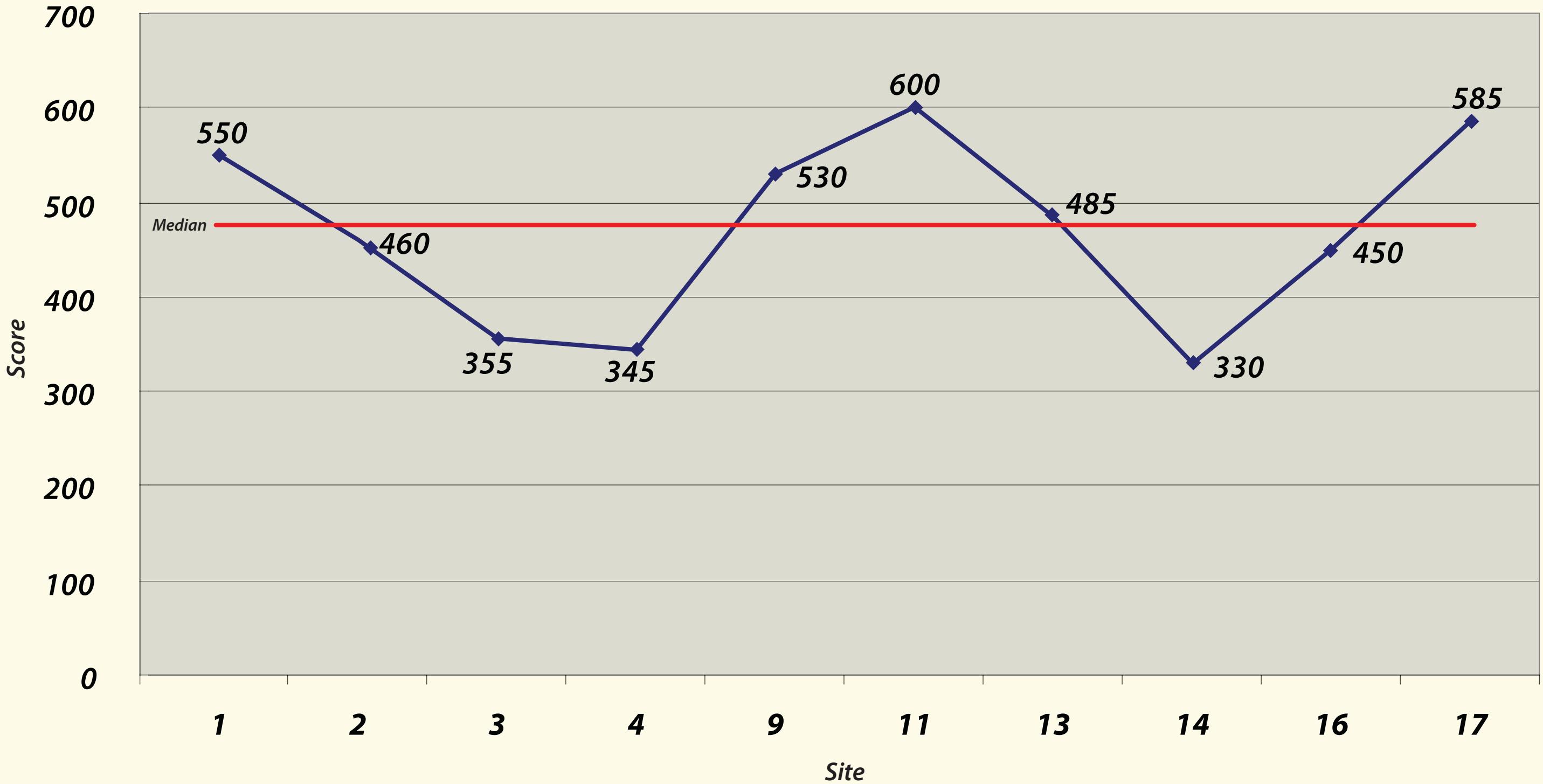
# Methodology Scoring Table

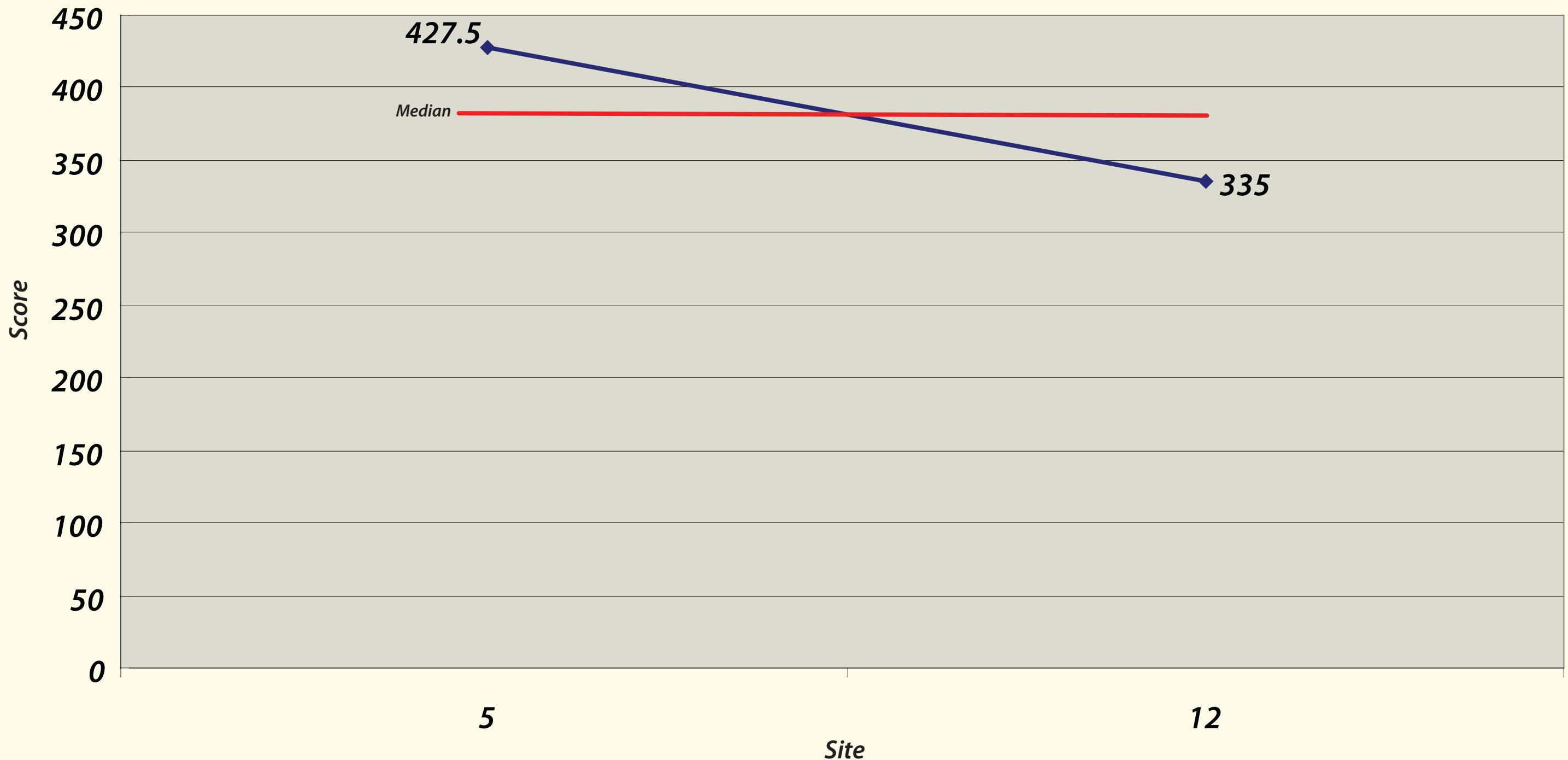
Score		Upland Contamination	In-Water Contamination	River Depth	Foundation Rating	In-water Structure	Highway/Freight Access	Railroad Access	Configuration	Off-Site Infrastructure
	Weighted Importance Factor	40	30	30	30	20	20	20	10	10
N/A				Off water		Off Water				storm, sanitary (or combined), water
1		1) contamination has not been documented at upland portions of the property; 2) documented contamination is limited to soil <i>or</i> groundwater or 3) DEQ has issued a no further action determination for the site. These conditions are considered excellent because the costs for addressing contamination at the property and liability for contamination in the river under these conditions are expected to be relatively low.	Significant contamination has not been documented in the Willamette River adjacent to the property or adjacent to the properties immediately upstream and downstream of the site. These conditions are considered excellent because, due to the apparent absence of significant site-derived contamination in the river, the degree of potential liability for contamination in the Portland Harbor Superfund site is likely to be relatively low.	40'+	excellent (<30')	On water with a structure	Front Highway/Freight Route	Onsite	Square	3/3 Onsite/Adjacent
2		Contamination, consisting of relatively non-recalcitrant chemicals ( <i>i.e.</i> petroleum hydrocarbons and limited numbers of metals) has been documented at upland portions of the property in soil <i>and</i> groundwater, but no ongoing contribution of hazardous substances to the Willamette River has been documented. These conditions are considered good because the risks that petroleum compounds pose to human health are commonly lower than the risks posed by other hazardous substances. Due to the lower risks, the degree of necessary cleanup, and the associated costs are generally lower than those that would be required for other more toxic or hazardous compounds.	Significant contamination has not been documented in the river adjacent to the subject property, but has been documented in the river either immediately upstream or downstream of the subject property. These conditions are considered good because the apparent absence of significant sediment contamination adjacent to the property suggests that the site may not be a source of contamination to the river. Some liability may be associated with sediment contamination immediately upstream or downstream of the property because there is potential that some of the contamination in those areas originated at the subject property.	20'- 40'	good (30-60')	N/A	Connection within 1/4mi.	Adjacent	Rectangle	2/3 Onsite/Adjacent
3		Contamination, consisting of recalcitrant chemicals ( <i>i.e.</i> dioxins and furans, polychlorinated biphenyls, herbicides, pesticides, or pentachlorophenol), has been documented at upland portions of the property in soil <i>and</i> groundwater, but no ongoing contribution of hazardous substances to the Willamette River has been documented. These conditions are considered fair because the risks that these compounds pose to human health are generally higher than the risks posed by the substances described for sites designated "Good" and these compounds are often relatively challenging to remediate. Due to the higher risks to human and ecological health and the associated remediation challenges, the degree of necessary cleanup and the associated costs are generally higher than those required for less toxic or hazardous compounds.	Significant contamination has been documented adjacent to the property <i>and</i> adjacent to properties either upstream <i>or</i> downstream of the subject property. These conditions are considered fair because the presence of significant sediment contamination at the property suggests that the site could be a source of contamination to the river. The presence of significant sediment contamination adjacent and upstream or downstream of the subject property may indicate that site-derived contaminants have migrated from the subject property to these areas. Properties that meet these conditions may be subject to significant liability for contamination in the river.	10' - 20'	fair (60-90')	N/A	Connection within 1/4mi. - 1/2mi.	Within 1/4mi	Jogged/Pie/Flag	1/3 Onsite/Adjacent
4		The property is a documented to be an ongoing source of contamination to the Willamette River. Properties are considered poor development candidates under these conditions because: 1) as an ongoing source of contamination to the river, owners of these properties may be required undertake measures to prevent the ongoing migration of contaminants to the river; 2) due to the documented contaminant contributions to the river, the owners of these properties may be likely to bear a relatively large share of liability for contamination in the Portland Harbor Superfund site and 3) mandatory contaminant source control measures may result in substantial development restrictions.	Significant contamination has been documented at the property and at adjacent properties upstream <i>and</i> downstream of the subject property. These conditions are considered poor because these conditions suggest that the property may be a significant source of contamination to the river. The presence of widespread significant sediment contamination may result in the highest share of liability for contamination in the river.	0' - 10'	poor (>90')	On water with out structure	Connection 1/2mi.+	1/4mi.+	Elongated/Narrow	0/3 Onsite/Adjacent

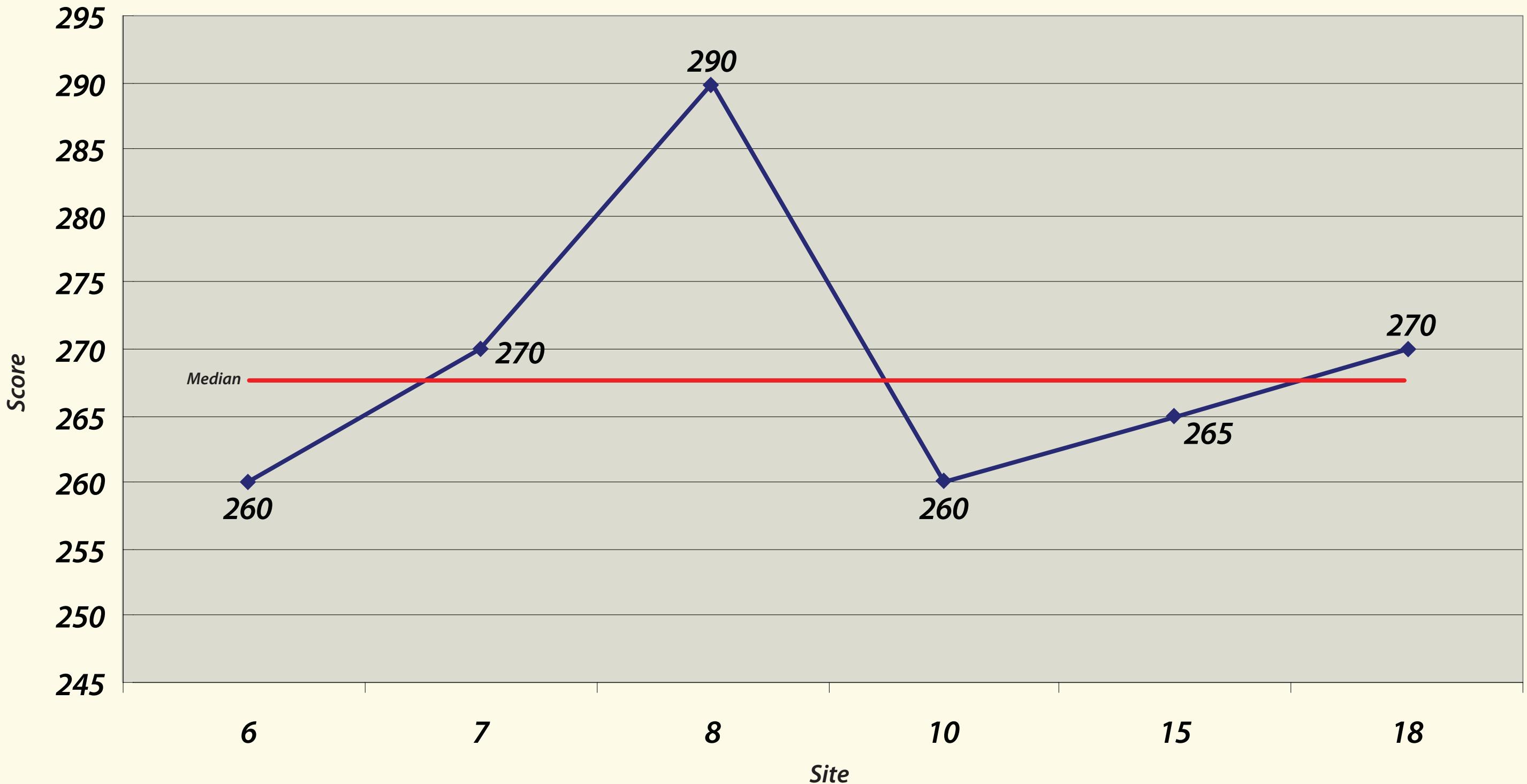
# Site Evaluation Matrix

	Upland Contamination	In-water Contamination	River Depth	Foundation Rating	In-water Structure	Railroad Access	Off-site Infrastructure	Highway/Freight Access	Configuration	Score	Relative Rank
Weighted Importance Factor	40	30	30	30	20	20	20	10	10		
<b>ON-WATER, RIVER INDUSTRIAL OVERLAY</b>											
Site 1 - Atochem North America Inc	4	4	2.5	3.5	1	1	1	1	2	550	8
Site 2 - Time Oil Co ET AL	3	1	2	4	1	1	2*	3	2	460	5
Site 3 - Linnton Plywood Association	1	2	2.5	2	1	2	1*	2	2	355	3
Site 4 - City of Portland (T-1 N Site)	1	2	2.5	1	4	1	1*	1	1	345	2
Site 9 - Langley - St. Johns Partnership	3	4	2	4	1	2	1	2	1	530	7
Site 11 - Siltronic Corporation	4	4	3	2	4	2	1	2	1	600	10
Site 13 - Northwest Natural Gas	4	4	2.5	1	1	1	1	1	3	485	6
Site 14 - Ownes-Corning Fiberglass Corp.	2	1	3	1	1	1	1	2	2	330	1
Site 16 - J R Simplot Company	1	4	2	4	1	1	1	4	1	450	4
Site 17 - Schnitzer Investment Corp.	3	4	2.5	4	1	1	3	4	1	585	9
<b>ON-WATER, RIVER GENERAL OVERLAY</b>											
Site 5 - City of Portland (Lagoon Site)	2	3	2.75	3.5	n/a	n/a	1*	4	1	427.5	2
Site 12 - Portland General Electric	2	1	3.5	1	n/a	n/a	2	2	3	335	1
<b>OFF-WATER, NO OVERLAY</b>											
Site 6 - Esco Corporation	3	n/a	n/a	3	n/a	n/a	1*	1	2	260	1
Site 7 - Gould Electronics Inc	4	n/a	n/a	2	n/a	n/a	1	1	2	270	3
Site 8 - Aventis Cropscience USA LP	4	n/a	n/a	2	n/a	n/a	1*	2	3	290	4
Site 10 - ACF Industrials Inc	4	n/a	n/a	1	n/a	n/a	1	1	4	260	1
Site 15 - Chevron USA Inc	3	n/a	n/a	3.5	n/a	n/a	1	1	1	265	2
Site 18 - Ro-Mar Realty of Oregon Inc	1	n/a	n/a	4	n/a	n/a	3	4	1	270	3

\*Based on Table 2-2 of the Working Harbor Reinvestment Strategy: Constrained Opportunity Sites Proposed for Infrastructure Analysis, this site was identified as requiring off-site infrastructure improvements. Please see the individual site sheet for more specific improvement details.

*On Water, River Industrial Overlay*

*On-Water, River General Overlay*

*Off-Water, No Overlay*

## Site Summary Description

The subsequent individual site pages summarize the existing physical, environmental, transportation and infrastructure elements related specifically to each individual site. The following is a brief description of each attribute presented in the site summary section of each page.

### Location

**Address:** The specific site address shown was provided by the Portland Development Commission and appears to have been used in previous maps. For purposes of consistency, this address was used to describe the actual location of the site.

**URA (Urban Renewal Area):** For sites located within a specific URA, the specific URA is labeled. If the site is not located within a URA, this field reads "No."

**Plan District:** Sites which were located within a Plan District were given the specific Plan District name in which the site was located in. If the site is not located within a Plan District, this field reads "No."

### Site Characteristics

**Site Size:** The actual site size described was taken from the Multnomah County Assessor's records. For sites 11 through 18, the area in parentheses describes unimproved area. The unimproved area boundary was provided as GIS data by the Portland Development Commission.

**Configuration:** The configuration of the site was determined by performing a lot-to-width ratio that categorized the configuration as follows: 1:1 – 1:1.5 = square; 1:1.5:1.4 = rectangle; 1.4+ = elongated. Those sites that were identified as flagged or jogged were determined based upon review of current lot boundaries. The number in parentheses shows the score which was given and corresponds with the score shown in the Site Evaluation Matrix.

**Topography:** The topography of the site was determined by reviewing the 2' contour GIS data provided by the Portland Development Commission. The 2' contours are shown in the aerial map.

**Unconstrained Area:** The unconstrained area describes the area within the site boundary that is not inundated with habitat, wetlands, or flood plains. For sites 11 through 18, the unconstrained area describes the area that is not inundated within the unimproved boundary.

### Environmental

**Habitat:** This attribute is comprised of the (e) River Environmental Zone, (c) Environmental Conservation Zone, and (p) Environmental Protection Zones that are proposed in The River Plan: North Reach. The proposed boundaries for these zones were provided by the Portland Development Commission in GIS data. The habitat area is described as the area containing (e) River Environmental Zone, (c) Environmental Conservation Zone, and (p) Environmental Protection Zoned area within the site boundary (or unimproved area boundary for sites 11 through 18). The proposed (e) River Environmental Zone, (c) Environmental Conservation Zone, and (p) Environmental Protection Zones are shown on the zoning map.

**Wetlands:** The wetland area described is the area that is located within the site boundary. For sites 11 through 18, the wetland area described is the area within the unimproved boundary. The wetland area was calculated using RLIS Metro data. The wetland area is shown on the aerial map.

**Flood Plain:** The flood plain area described is the flood plain area located within the site boundary. For sites 11 through 18, the flood plain area described is the area within the unimproved boundary. The 100-year flood plain area was calculated using RLIS Metro data. The flood plain area is shown on the aerial map.

**Upland Contamination:** This attribute briefly describes the upland contamination located within the site boundary for each site. Each property was assigned a classification, based on the potential significance of upland contamination. The number in parentheses shows the score given and corresponds with the score shown in the Site Evaluation Matrix.

**In-water Contamination:** This attribute briefly describes the in-water contamination for each property except those in the Off-Water, No Overlay category. Each site was assigned a classification, based on the potential significance of contamination in the Willamette River near the property. The number in parentheses shows the score given and corresponds with the score shown in the Site Evaluation Matrix.

### Transportation

**Highway/Freeway Access:** Each site was evaluated based upon the proximity to highway and/or truck freight routes. The number in parentheses shows the score given and corresponds with the score shown in the Site Evaluation Matrix.

**Railroad Access:** Utilizing existing GIS data, each site was inventoried to understand existing and proximity to rail service. This category only applies to those sites within the On-Water, River Industrial Overlay, as these are the sites required to have a rail or water connection per the proposed (i) zoning overlay. This category was noted as not applicable for the remainder of the sites. The number in parentheses shows the score given and corresponds with the score shown in the Site Evaluation Matrix.

### Infrastructure

**Water, Sewer, Storm:** Utilizing existing GIS data, each site was inventoried for its ability to be served by the three major public utilities: water, sewer, and storm (or combine storm/sewer). Utility information is shown on the infrastructure map.

**In-water Structure:** Utilizing current aerial photography (2007) as well as GIS information from the Bureau of Planning and Sustainability, each site was inventoried as to whether or not existing in-water structures were present. Sites containing in-water structures were given a score of 4 and sites without were given a score of 1.

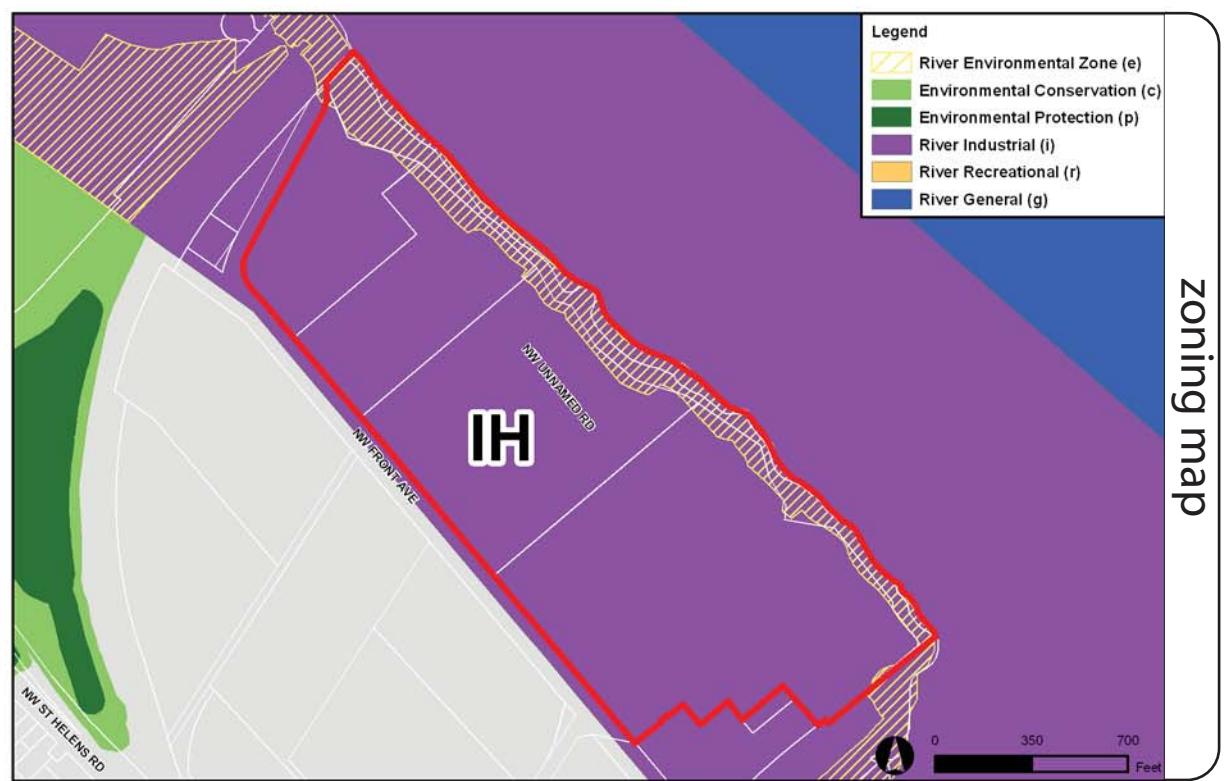
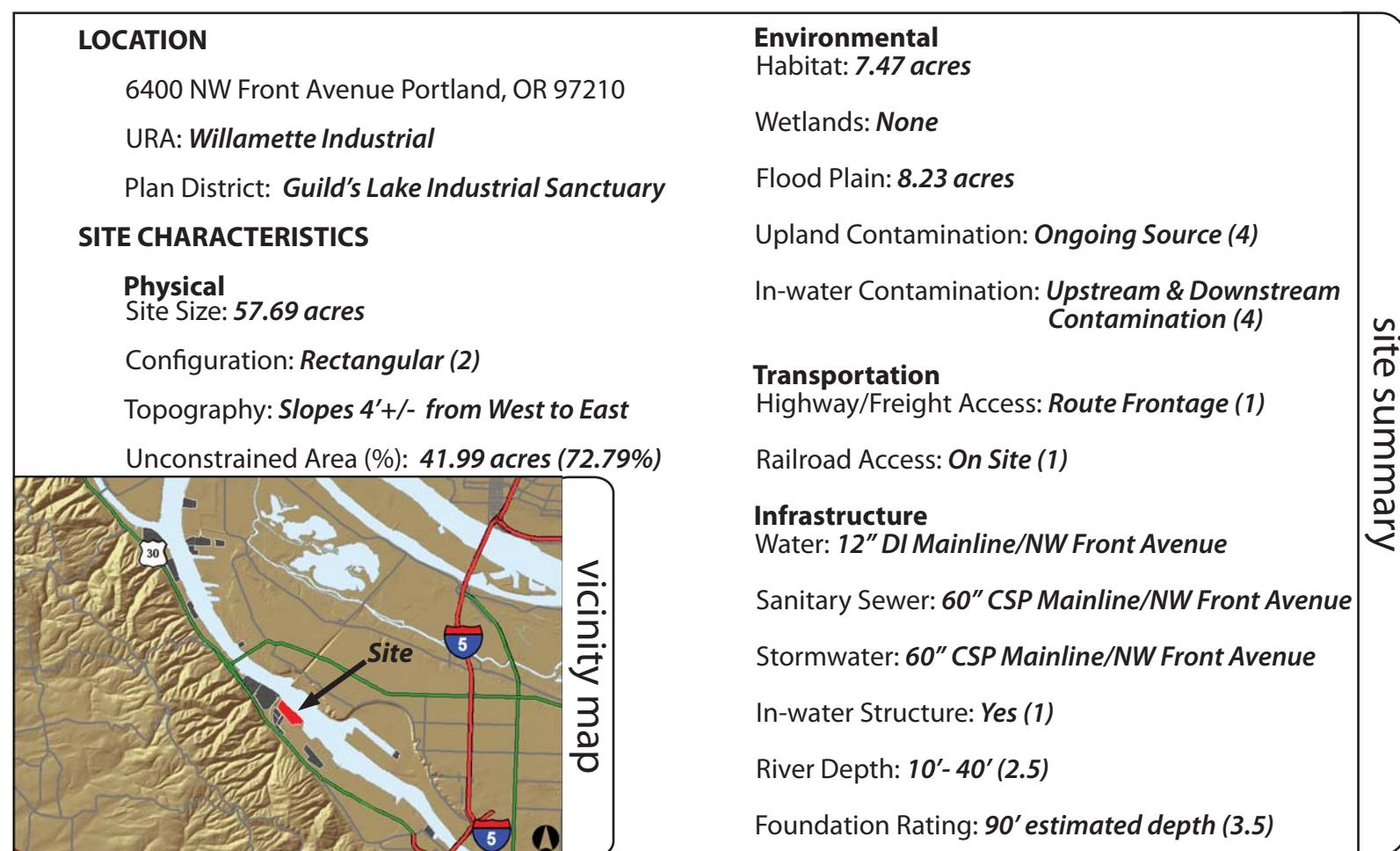
**River Depth:** GeoEngineers reviewed existing aerial photography and bathymetric maps to provide a ranking of river accessibility. Deeper water adjacent to the site was considered to be more favorable, allowing the passage of larger ships without dredging. The number in parentheses shows the score given and corresponds with the score shown in the Site Evaluation Matrix.

**Foundation Rating:** GeoEngineers reviewed existing geologic maps and aerial photography, as well as existing data in reports for nearby properties, to develop our rankings. Sites shown with shallower depth to bedrock will result in less liquefaction settlement during a design level earthquake, and will allow for more cost-effective foundation alternatives. The number in parentheses shows the score given and corresponds with the score shown in the Site Evaluation Matrix.



# Site #1

## Atochem North America Inc.



Score: 550 Relative Rank: 8

**LOCATION**

10350 N. Time Oil Road Portland, OR 97203

URA: No

Plan District: No

**SITE CHARACTERISTICS****Physical**

Site Size: 45.27 acres

Configuration: Rectangular (2)

Topography: Slopes 2'+/- from South to North

Unconstrained Area (%): 41.07 acres (90.72%)

**Environmental**

Habitat: 2.03 acres

Wetlands: None

Flood Plain: 2.18 acres

Upland Contamination: *Recalcitrant Chemicals Not a source (3)*

In-water Contamination: *No Significant Contamination (1)*

**Transportation**

Highway/Freight Access: *Connection between 1/4 mi. - 1/2 mi. (3)*

Railroad Access: *On Site (1)*

**Infrastructure**

Water: 24" DI Mainline/N. Time Oil Road

Sanitary Sewer: 12" CSP Mainline/N. Time Oil Road

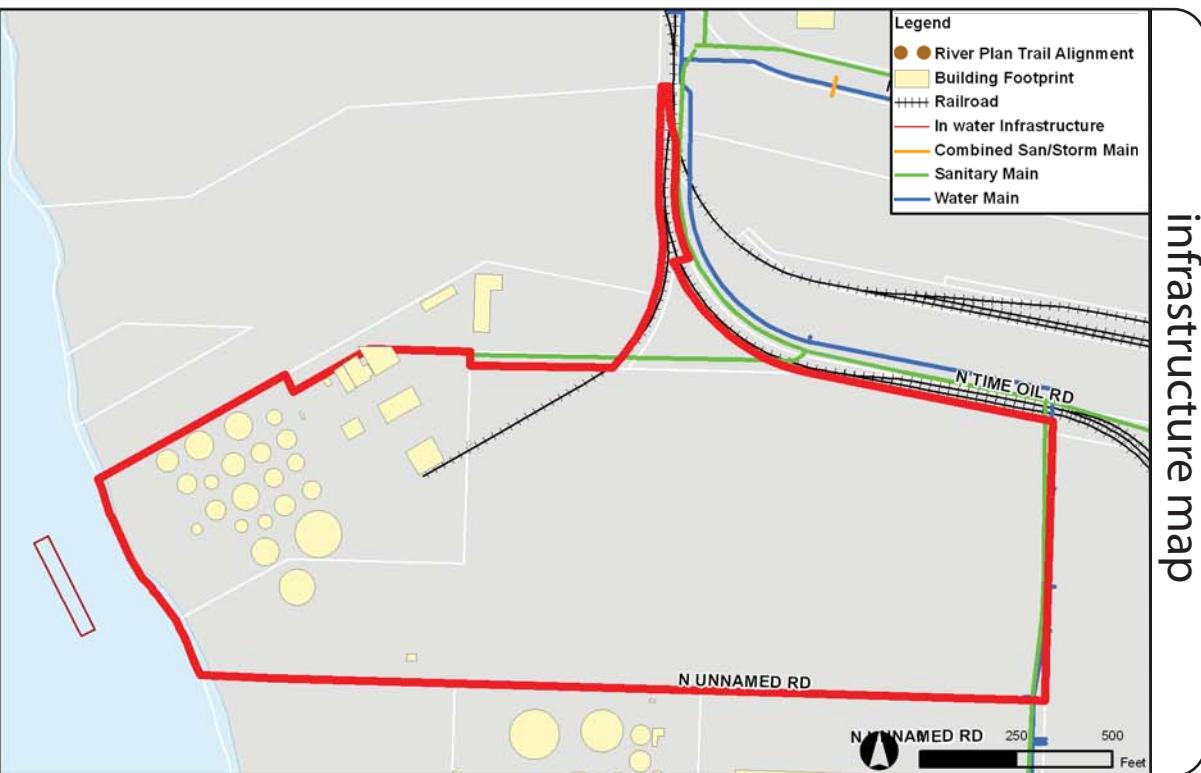
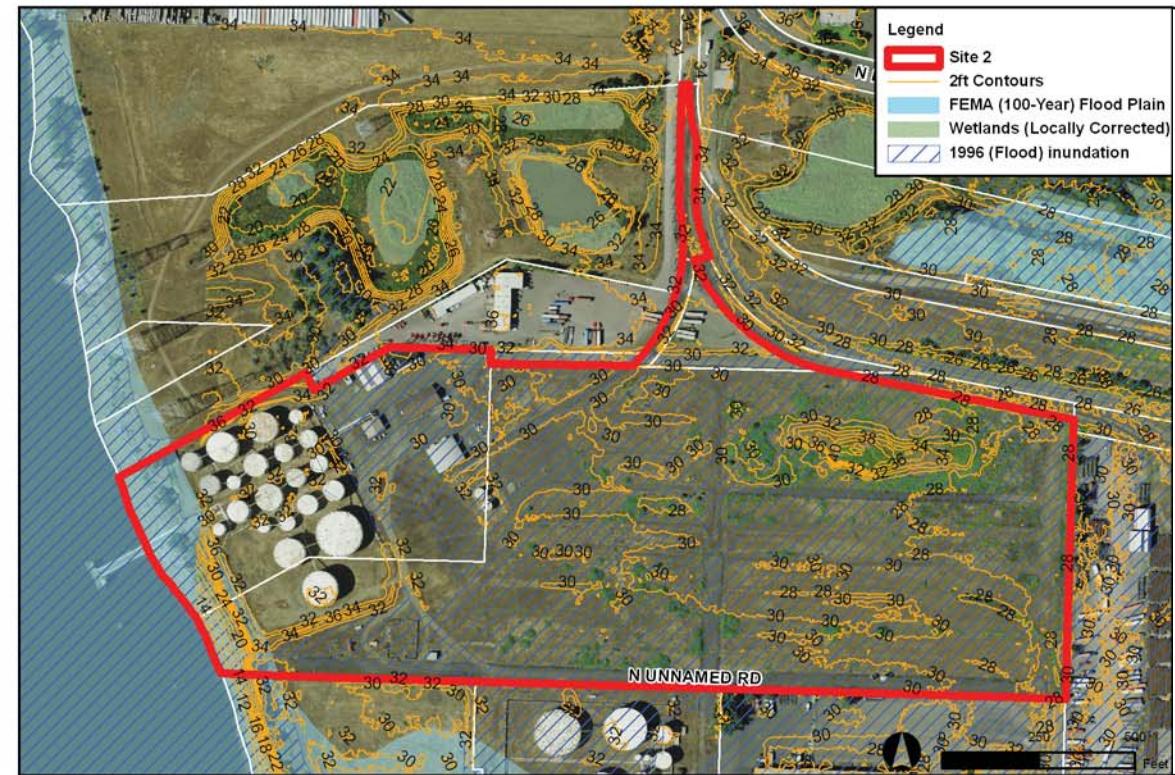
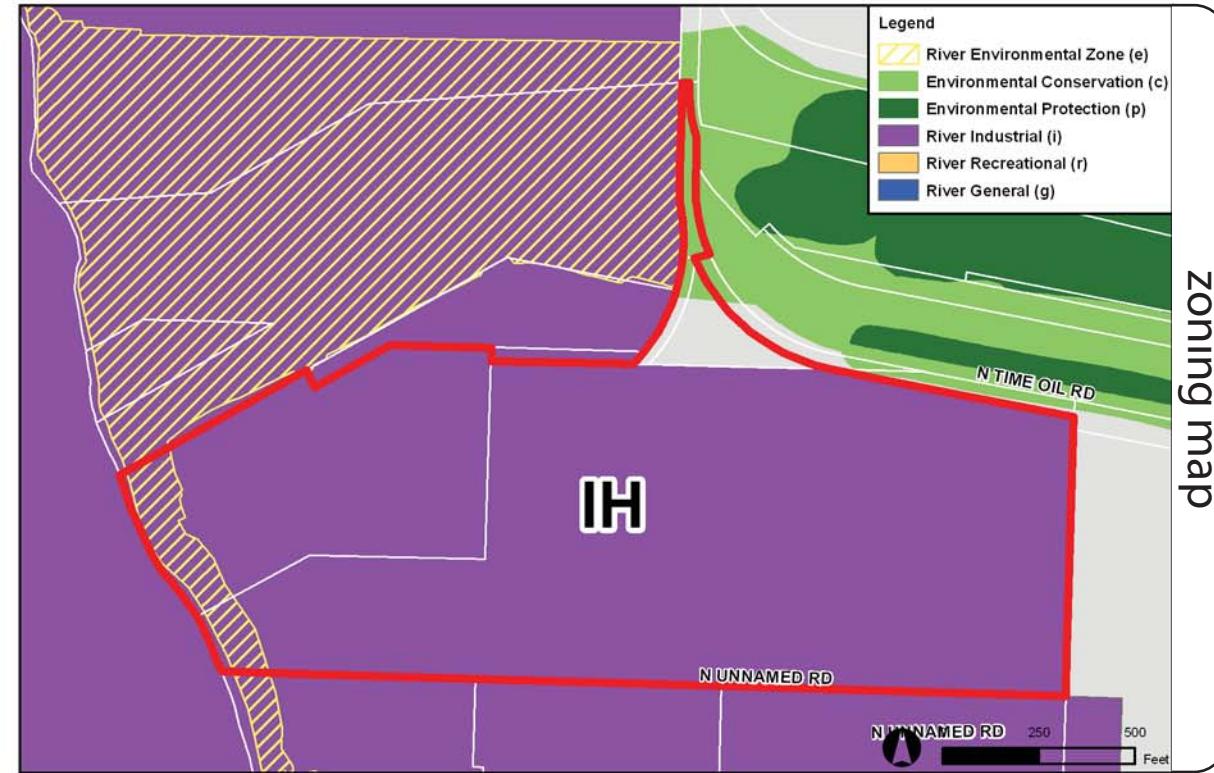
Stormwater: None

In-water Structure: Yes (1)

River Depth: 20' - 40' (2)

Foundation Rating: 150' - 180' estimated depth (4)

\*Based on Table 2-2 of the Working Harbor Reinvestment Strategy, the following improvements were identified:\$510,000 in street upgrades, \$260,000 for drainage and \$405,000 for sewer improvements on Time Oil Road.

**site summary****zoning map**

Score: 460 Relative Rank: 5

# Site #3

# Linniton Plywood Association

20

## LOCATION

10504 NW St. Helens Road Portland, OR 97231

URA: No

Plan District: No

## SITE CHARACTERISTICS

### Physical

Site Size: 23.63 acres

Site Configuration: Rectangular (2)

Topography: Slopes 12'+/- from West to East

Unconstrained Area (%): 17.64 acres (74.65%)



## Environmental

Habitat: 3.78 acres

Wetlands: None

Flood Plain: 2.21 acres

Upland Contamination: Undocumented or Limited to soil (1)

In-water Contamination: Significant Contamination Adjacent to Property (2)

### Transportation

Highway/Freight Access: Connection within 1/4 mi. (2)

Railroad Access: Adjacent to Site (2)

### Infrastructure

Water: 8" CI Mainline/NW Corner

Sanitary Sewer: 24" CSP Mainline/West PL

Stormwater: 60" CMP Mainline/SW Corner

In-water Structure: Yes (1)

River Depth: 10' - 40' (2.5)

Foundation Rating: 30' - 60' estimated depth (2)

\* Based on Table 2-2 of the Working Harbor Reinvestment Strategy, the following improvements were identified: \$3.1 million street, \$1.1 million rail crossing, \$1.9 million sewer, water, stormwater, \$2.9 million pump station replacement

**site summary**



**infrastructure map**



**Legend**

- River Environmental Zone (e)
- Environmental Conservation (c)
- Environmental Protection (p)
- River Industrial (i)
- River Recreational (r)
- River General (g)

Score: 355 Relative Rank: 3

# Site #4

## City of Portland (T-1N Site)

aerial map



site summary

**LOCATION**  
2200 NW Front Avenue Portland, OR 97209  
**URA:** No  
**Plan District:** Guild's Lake Industrial Sanctuary

**SITE CHARACTERISTICS**

**Physical**  
Site Size: **15.80 acres**  
Configuration: **Square (1)**  
Topography: **Slopes 2' +/- from South to North**  
Unconstrained Area (%): **15.80 acres (100.00%)**

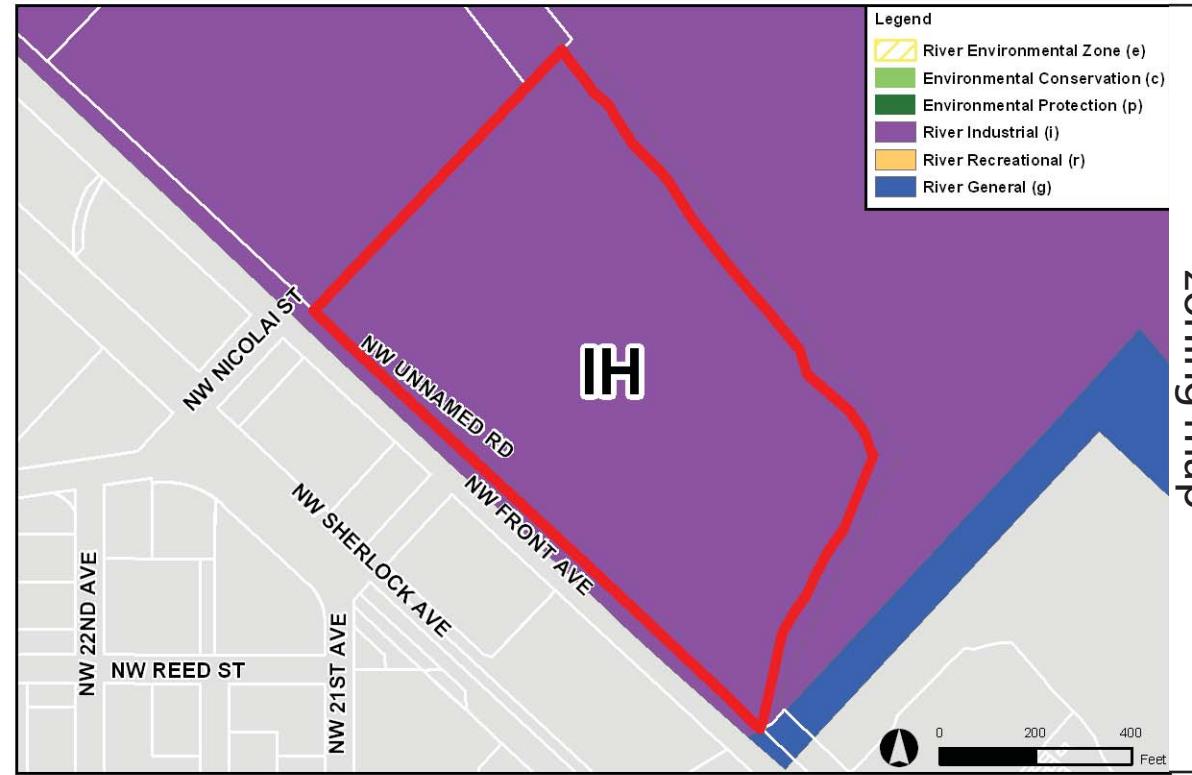
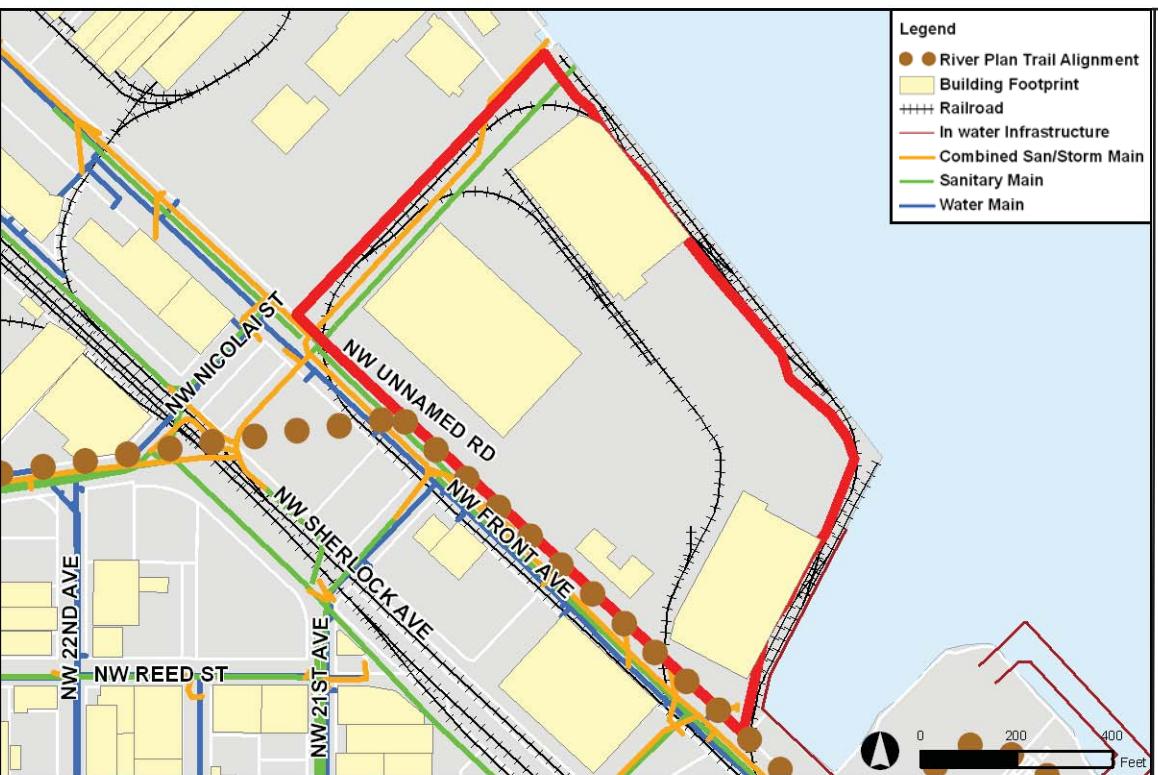
**Environmental**  
Habitat: **None**  
Wetlands: **None**  
Flood Plain: **None**  
Upland Contamination: **Undocumented or Limited to soil (1)**  
In-water Contamination: **Significant Contamination Adjacent to Property (2)**

**Transportation**  
Highway/Freight Access: **Route Frontage (1)**  
Railroad Access: **On Site (1)**

**Infrastructure**  
Water: **14" CI Mainline/NW Front Avenue**  
Sanitary Sewer: **12" CSP Mainline/NW Front Avenue**  
Stormwater: **96" RCSP Mainline/NW Front Avenue**  
In-water Structure: **No (4)**  
River Depth: **10' - 40' (2.5)**  
Foundation Rating: **0' - 30' estimated depth (1)**



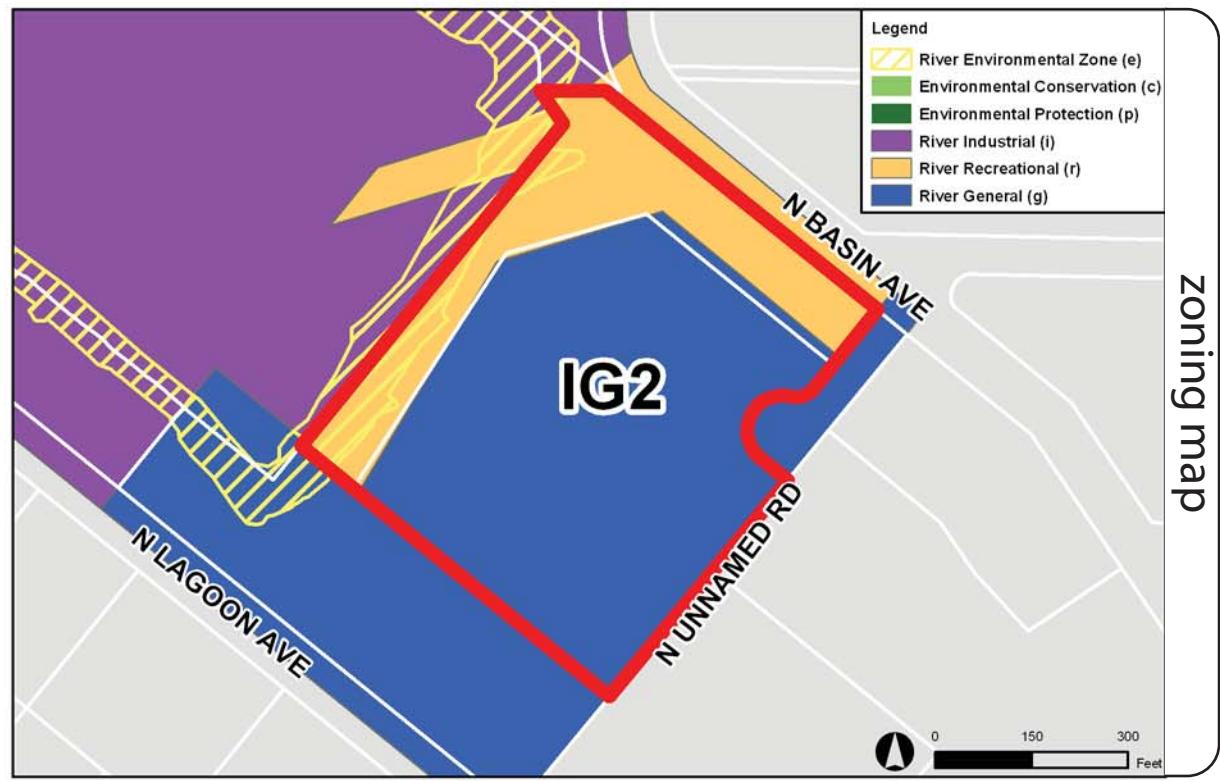
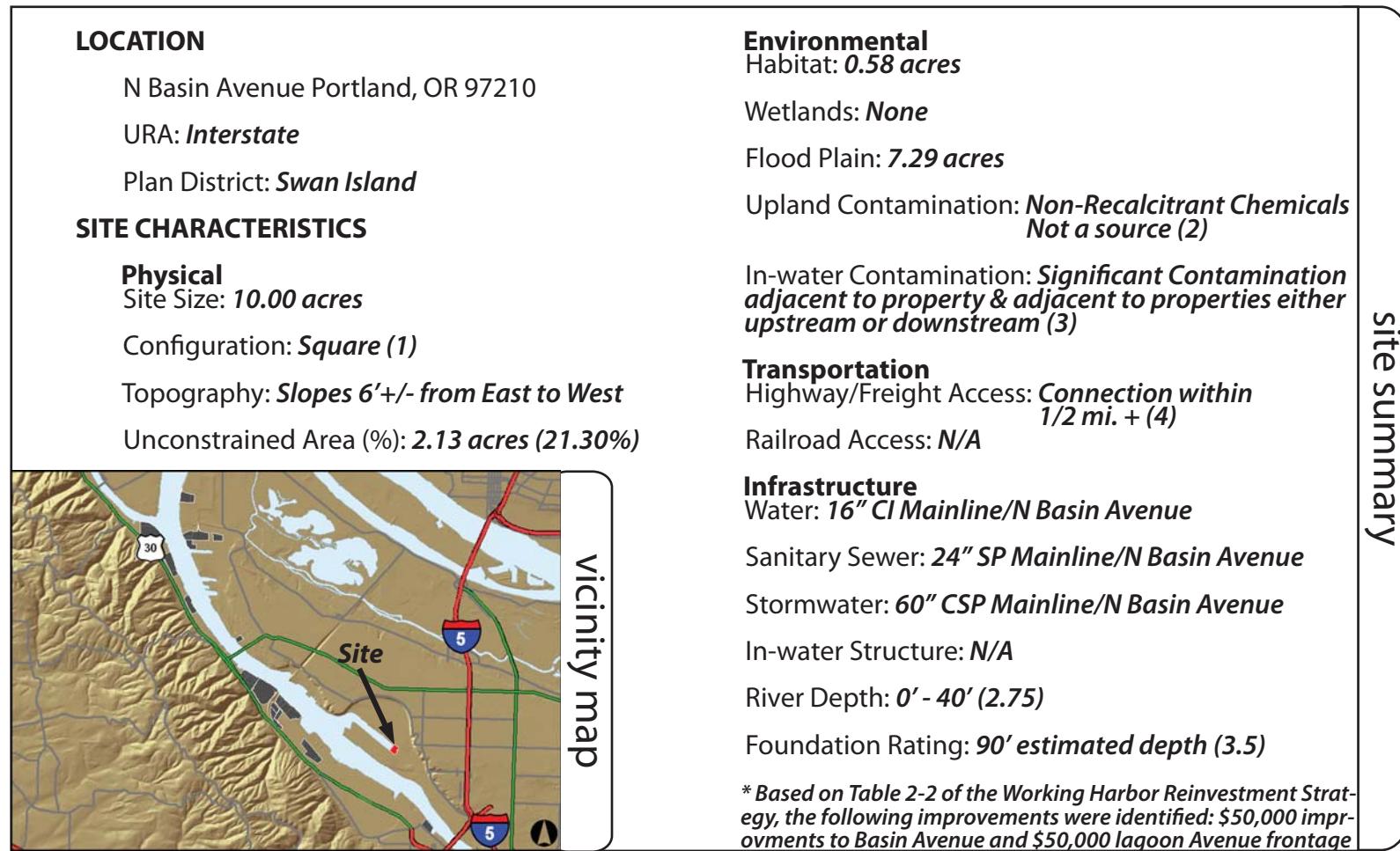
infrastructure map



Score: 345 Relative Rank: 2

# Site #5

## City of Portland (Lagoon Site)



Score: 427.5 Relative Rank: 2

**LOCATION**

6900 NW Front Avenue Portland, OR 97210

URA: **Willamette Industrial**

Plan District: **Guild's Lake Industrial Sanctuary**

**SITE CHARACTERISTICS****Physical**

Site Size: **10.51 acres**

Configuration: **Rectangular (2)**

Topography: **Slopes 4'+/- from North to South**

Unconstrained Area (%): **10.51 acres (100.00%)**

**Environmental**

Habitat: **None**

Wetlands: **None**

Flood Plain: **None**

Upland Contamination: **Non-Recalcitrant Chemicals Not a source (2)**

In-water Contamination: **N/A**

**Transportation**

Highway/Freight Access: **Route Frontage (1)**

Railroad Access: **N/A**

**Infrastructure**

Water: **24" DI Mainline/NW Front Avenue**

Sanitary Sewer: **60" CSP Mainline/NW Front Avenue**

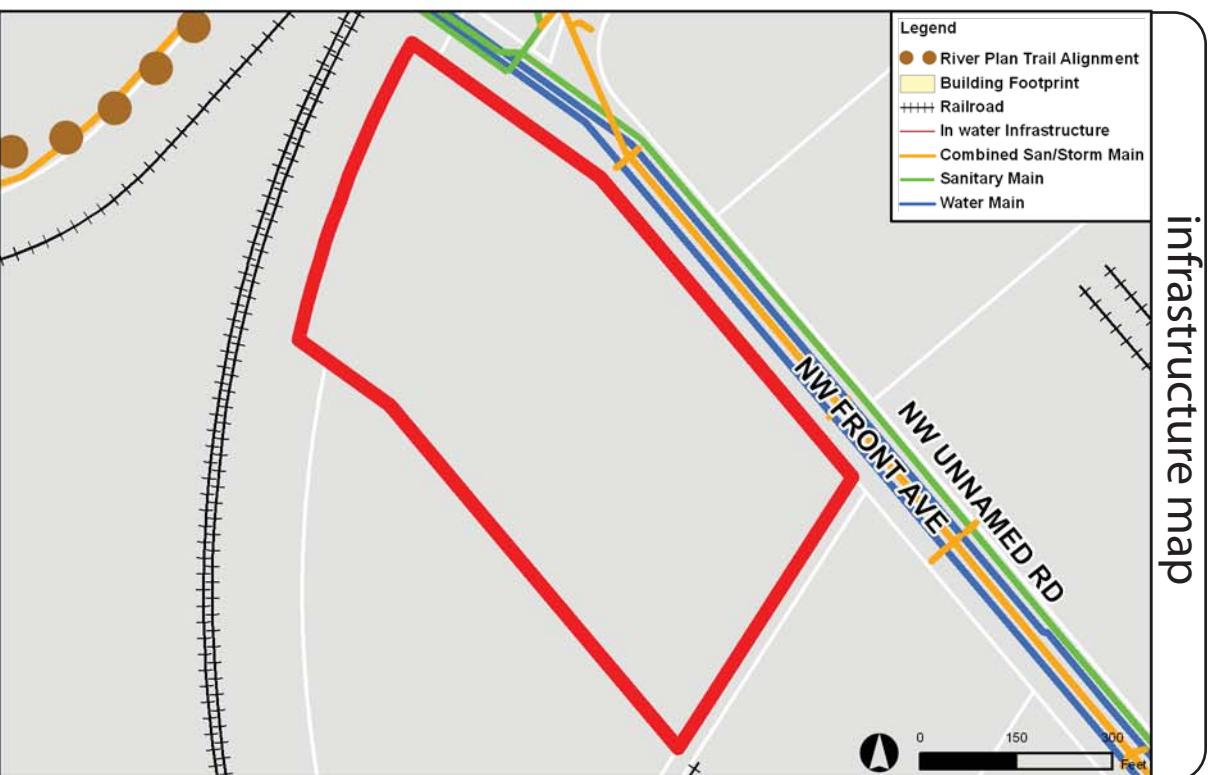
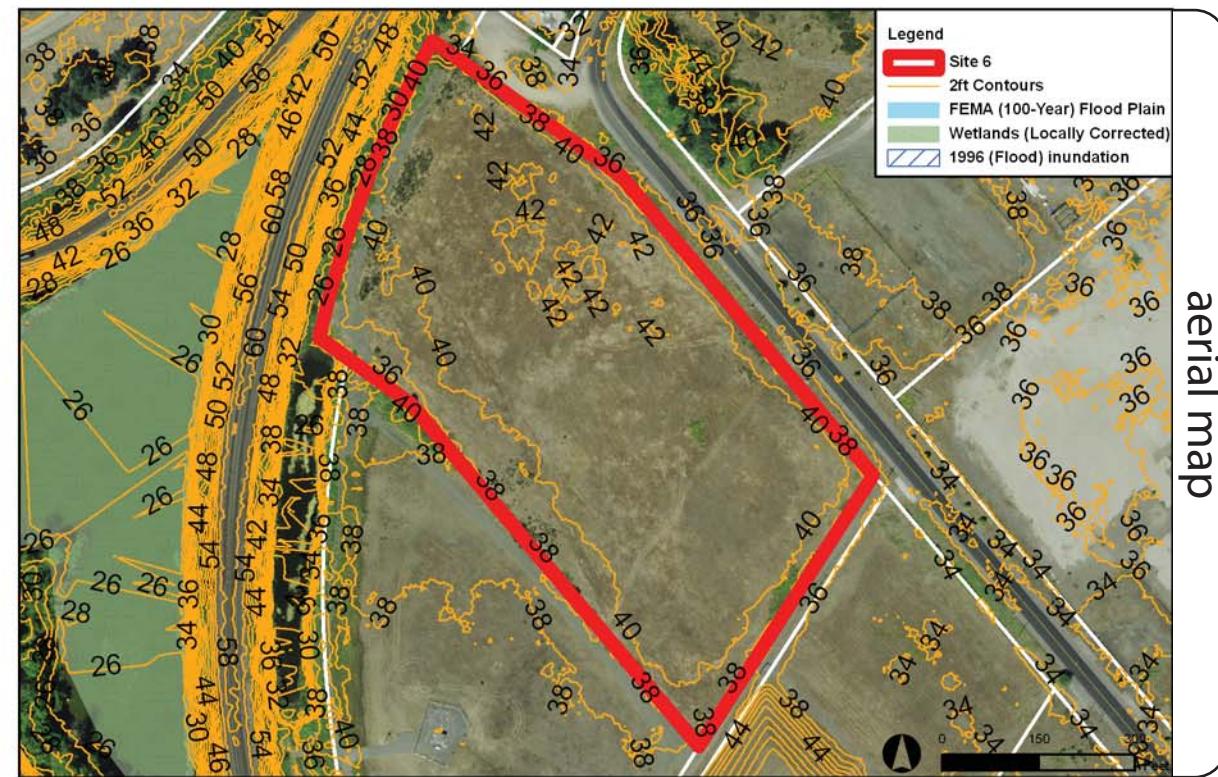
Stormwater: **60" CSP Mainline/NW Front Avenue**

In-water Structure: **N/A**

River Depth: **N/A**

Foundation Rating: **60' - 90' estimated depth (3)**

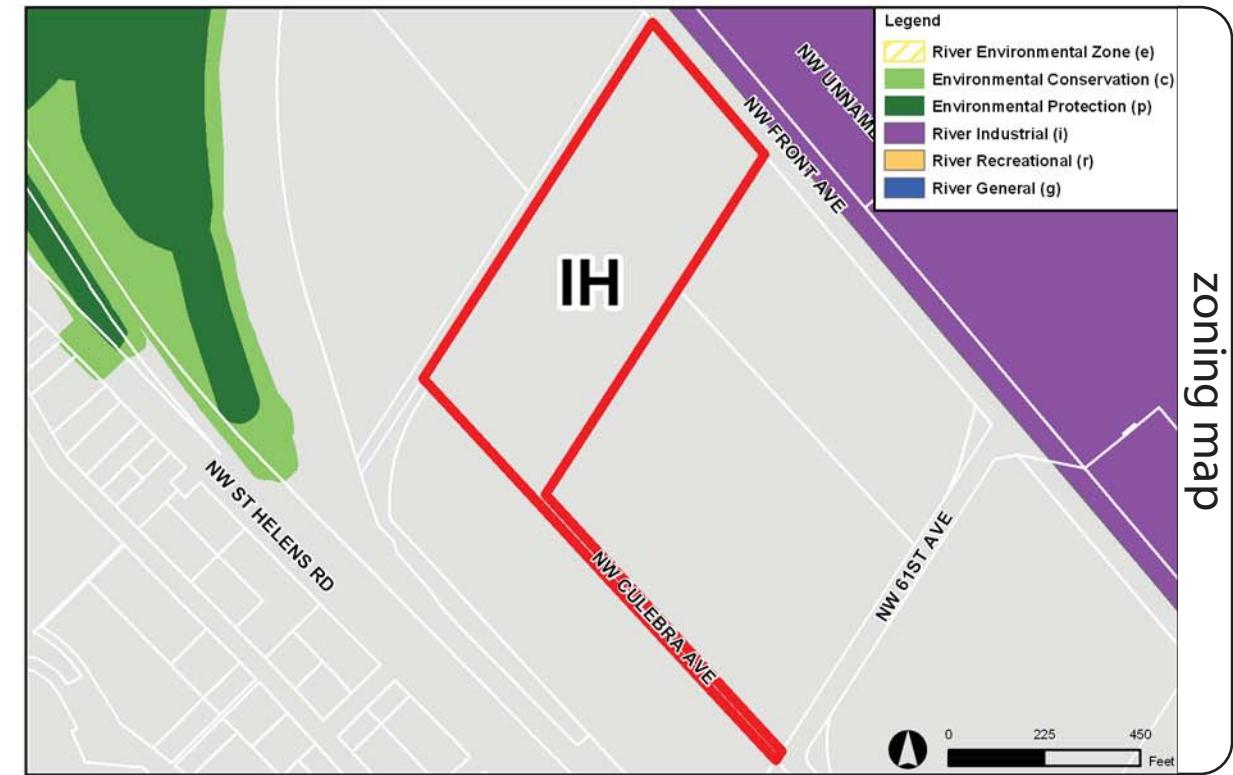
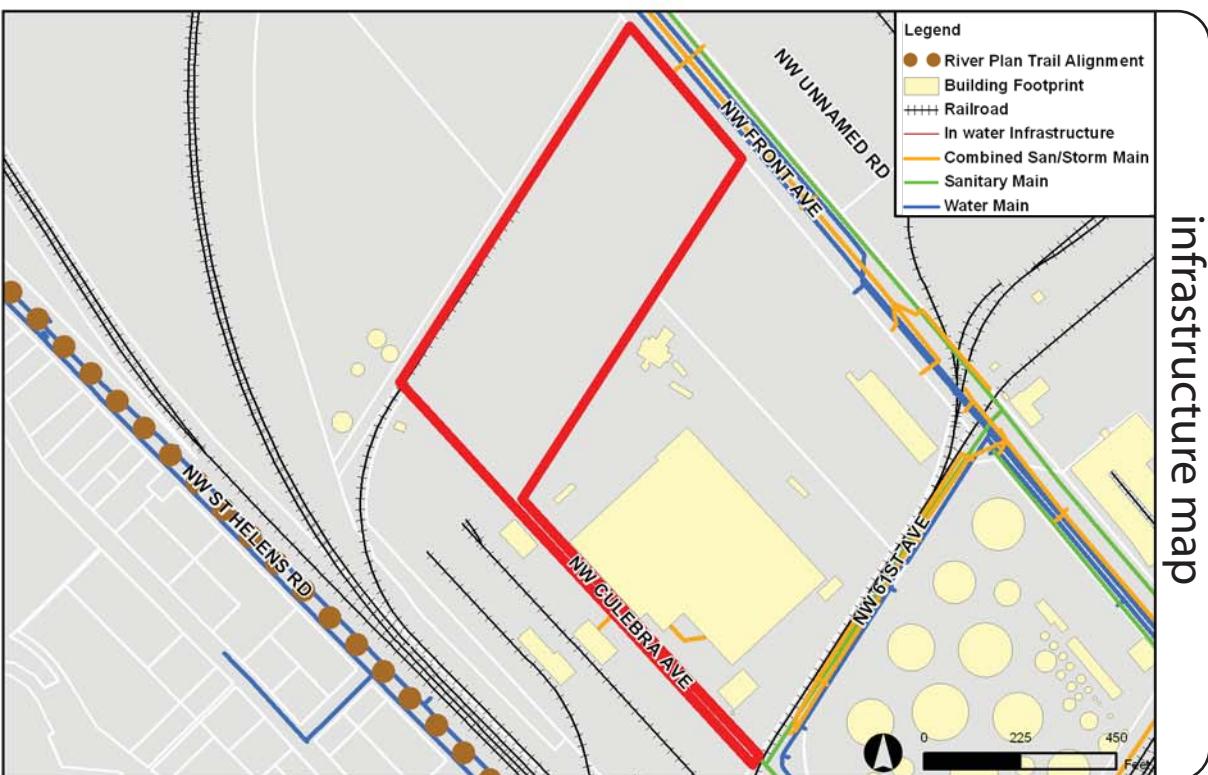
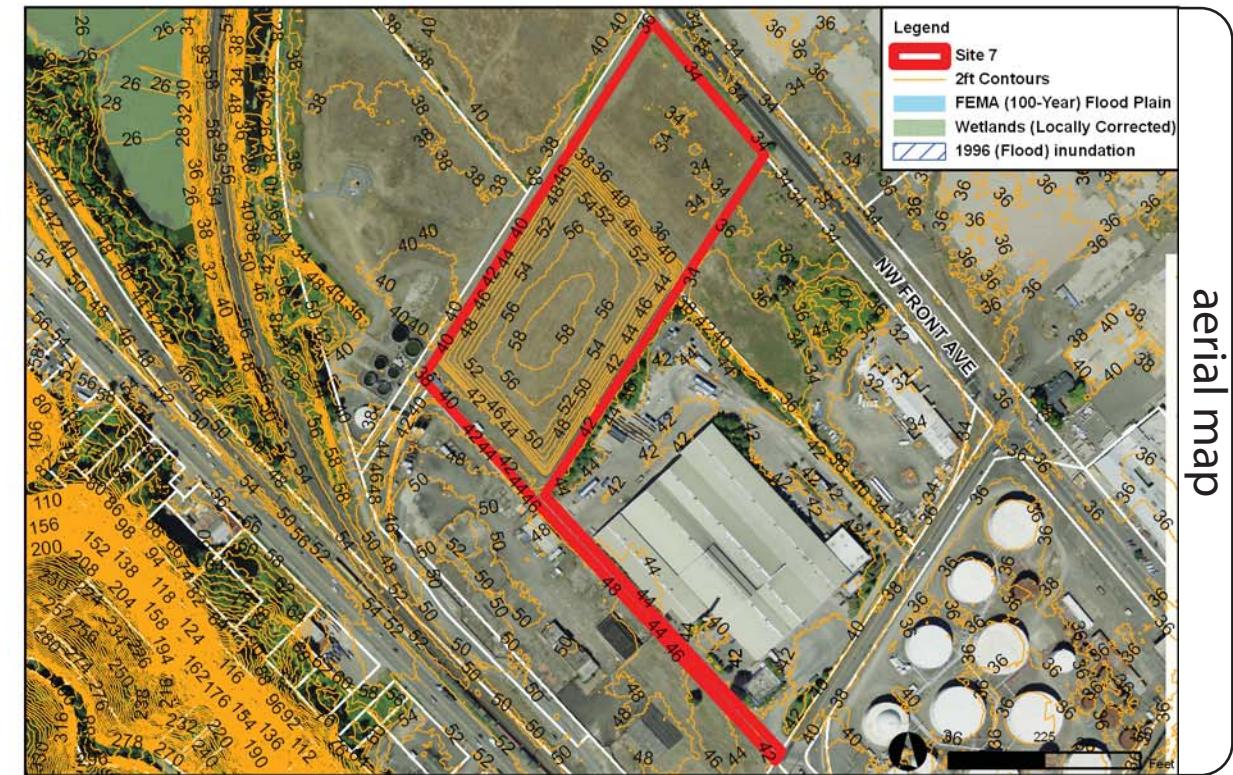
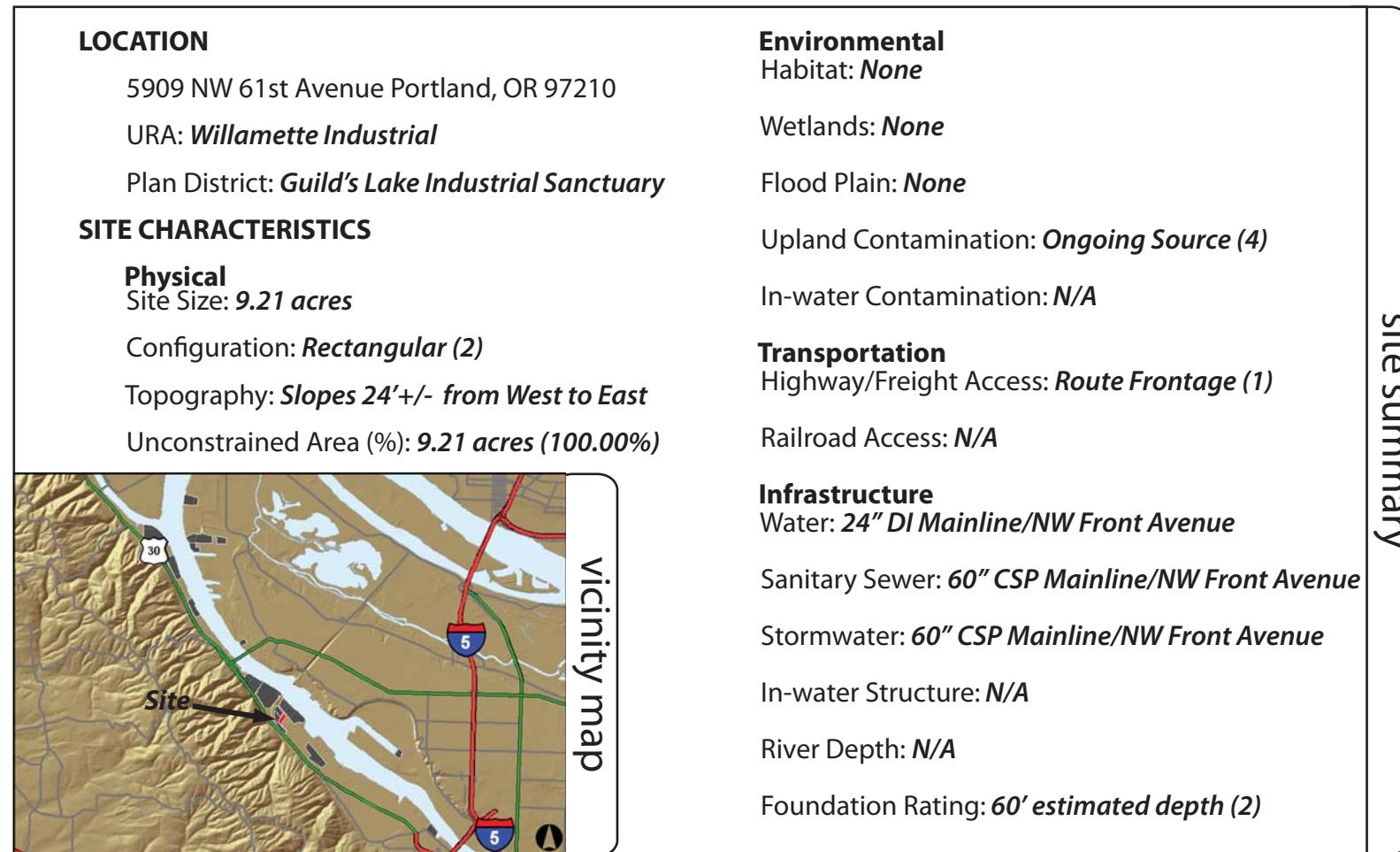
\* Based on Table 2-2 of the Working Harbor Reinvestment Strategy, the following improvements were identified: \$24,000 for half street improvements with Site 7 - Gould Electronics

**site summary**

Score: 260 Relative Rank: 1

# Site #7

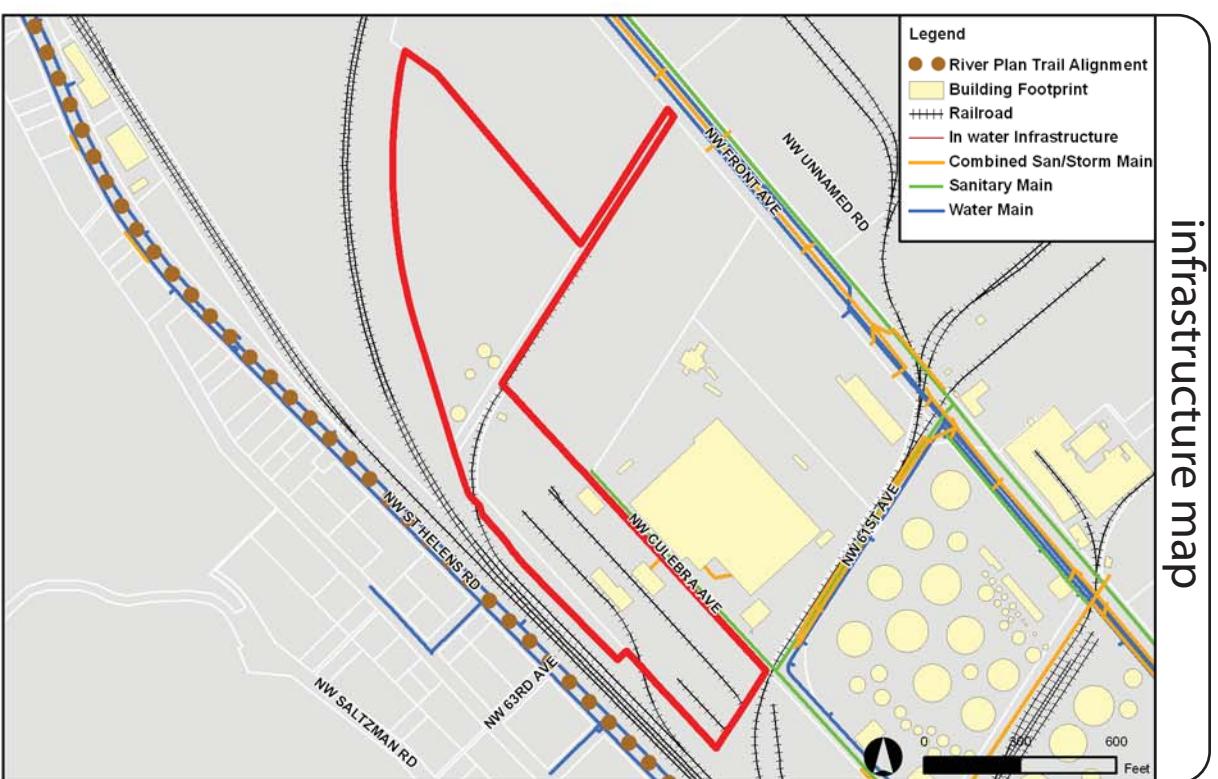
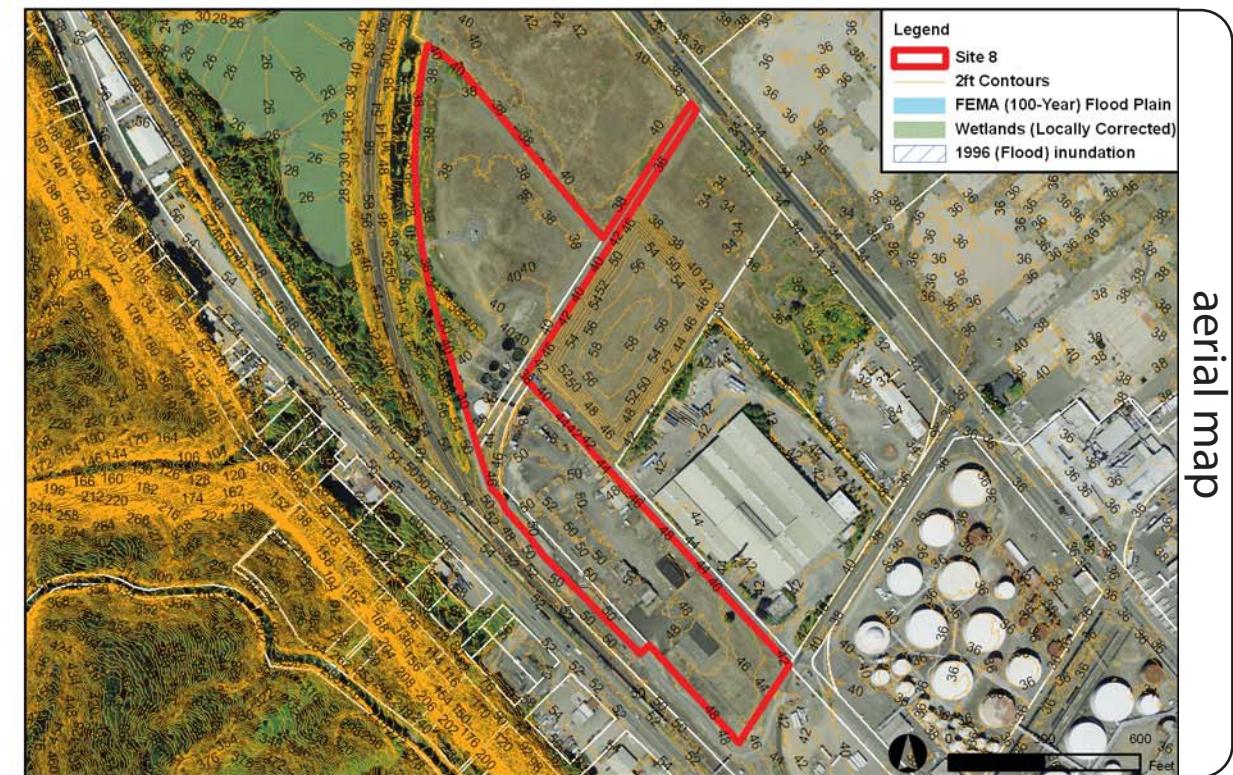
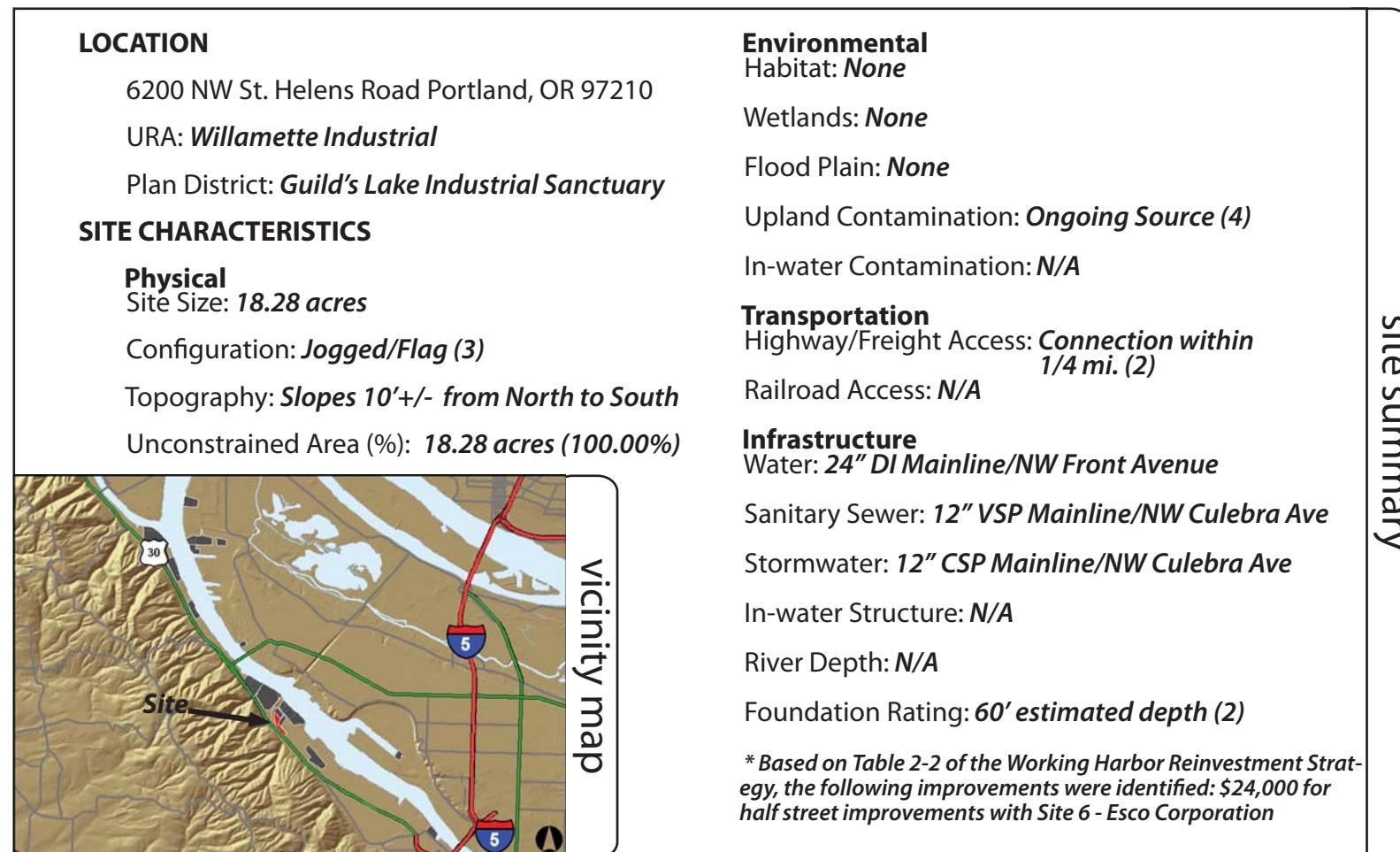
## Gould Electronics Inc.



Score: 270 Relative Rank: 3

# Site #8

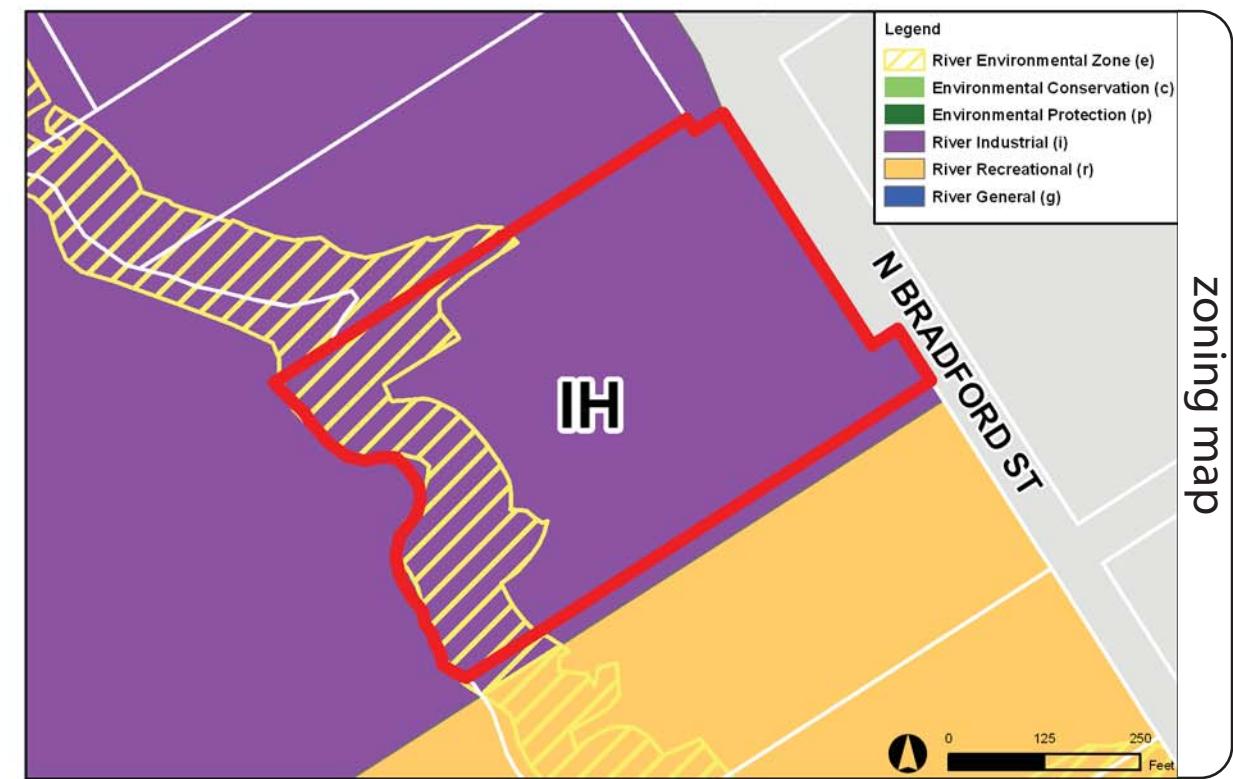
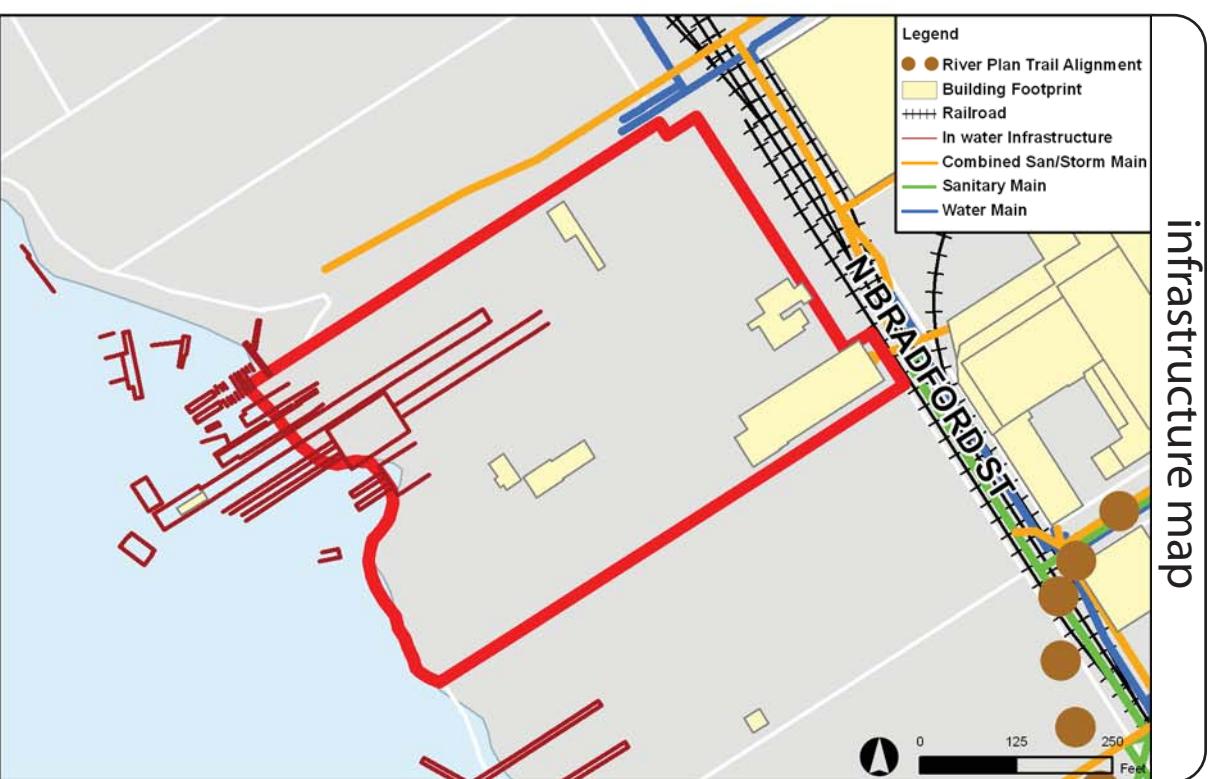
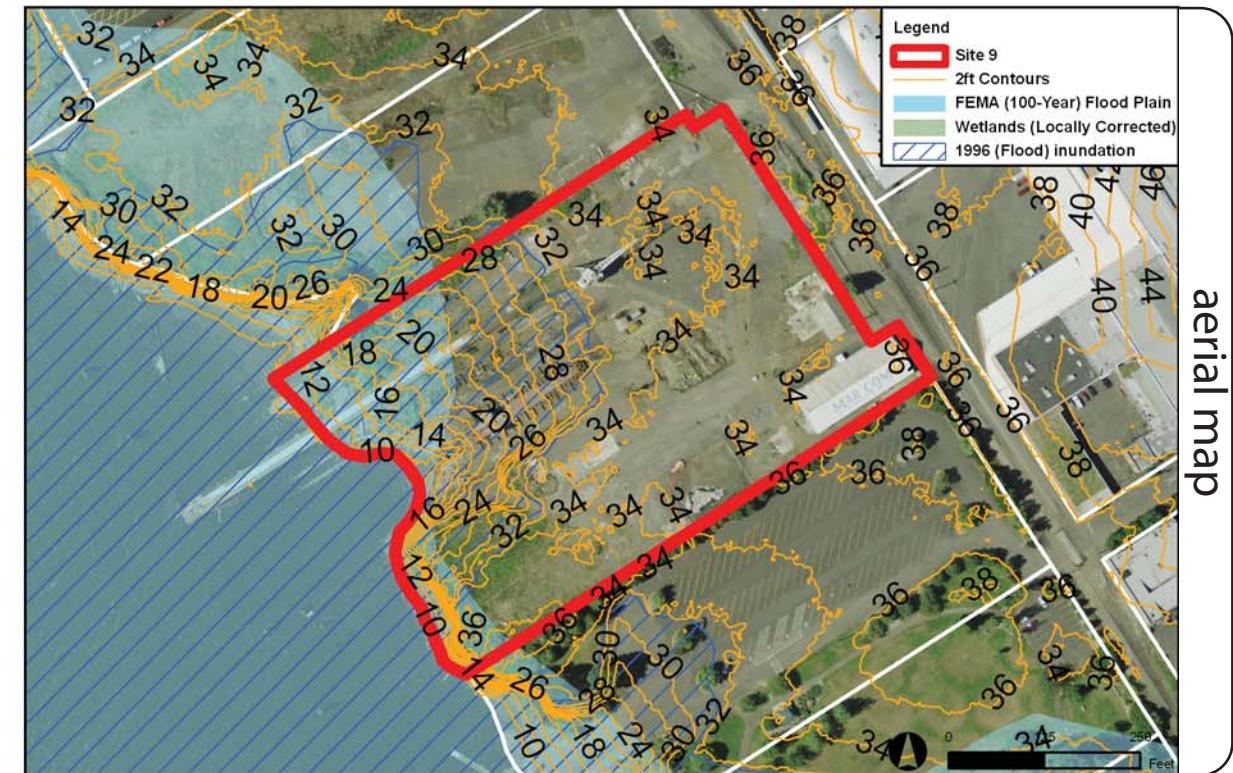
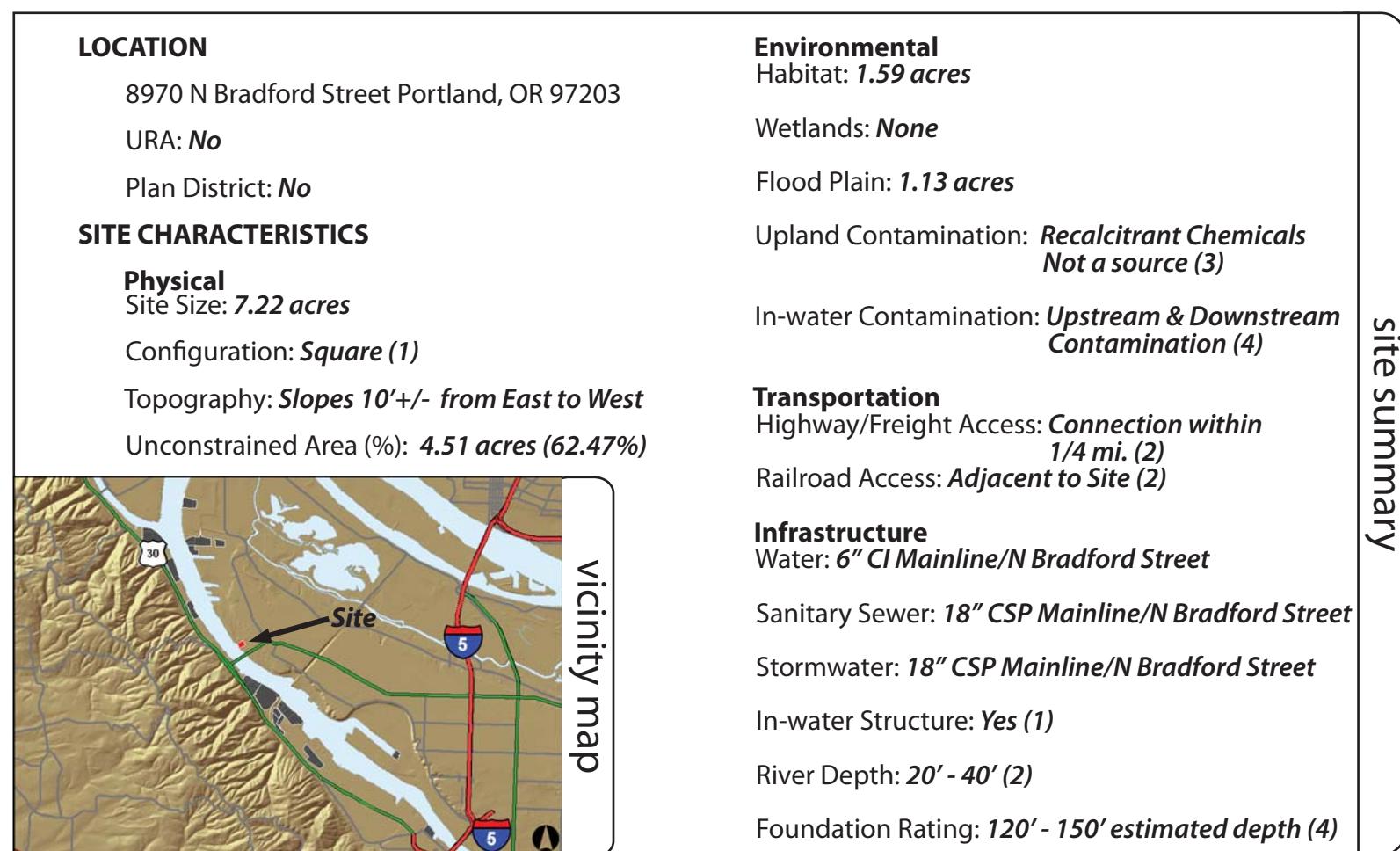
## Aventis Cropscience USA LP



Score: 290 Relative Rank: 4

# Site #9

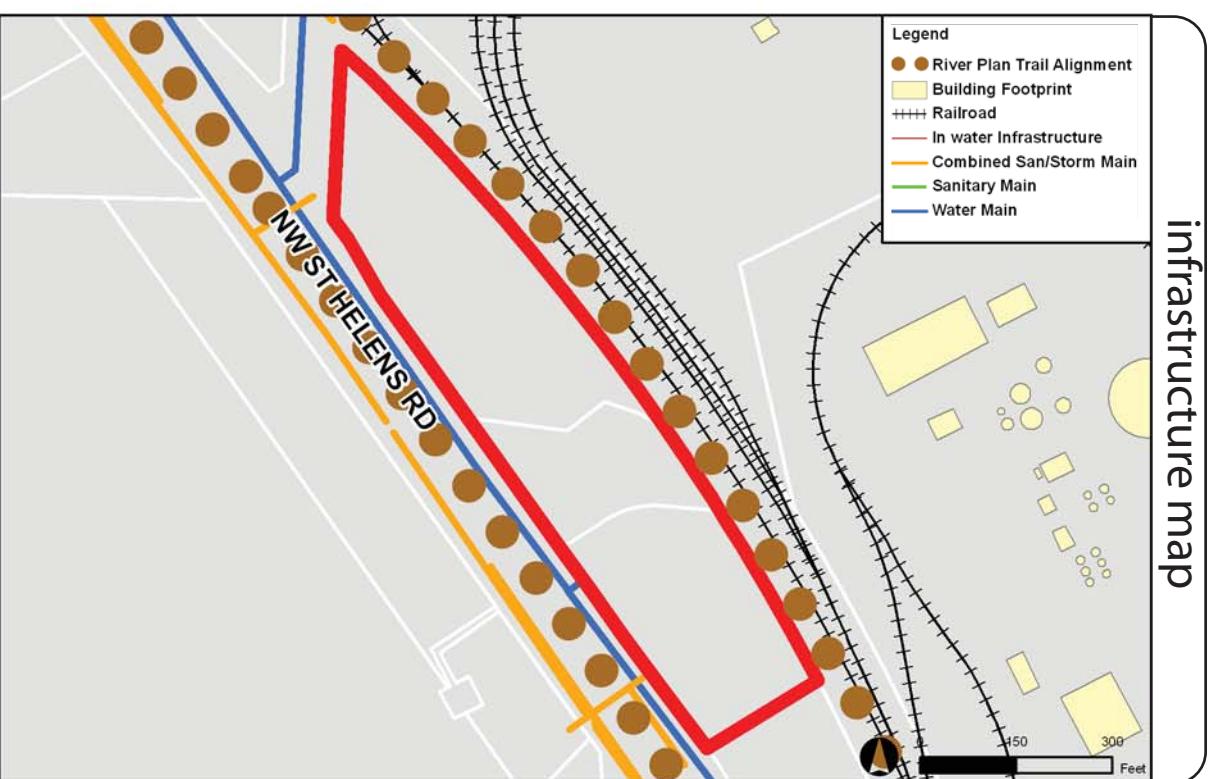
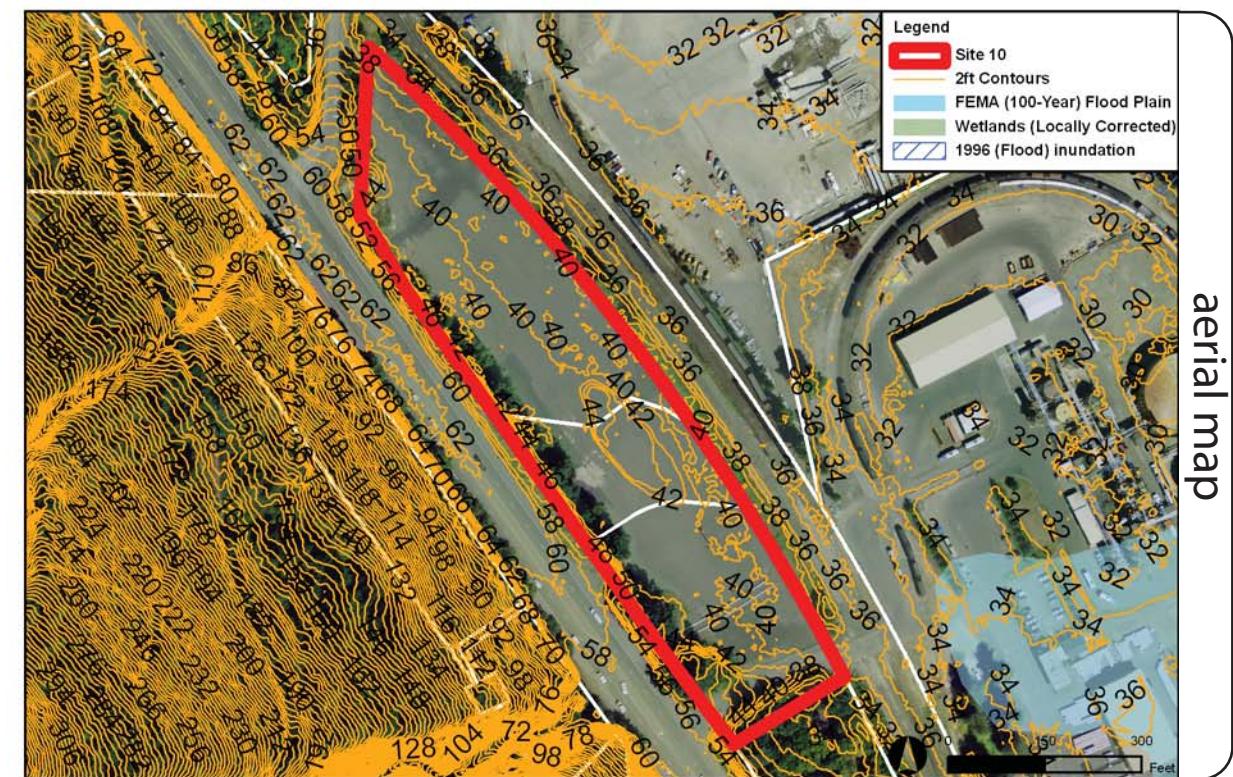
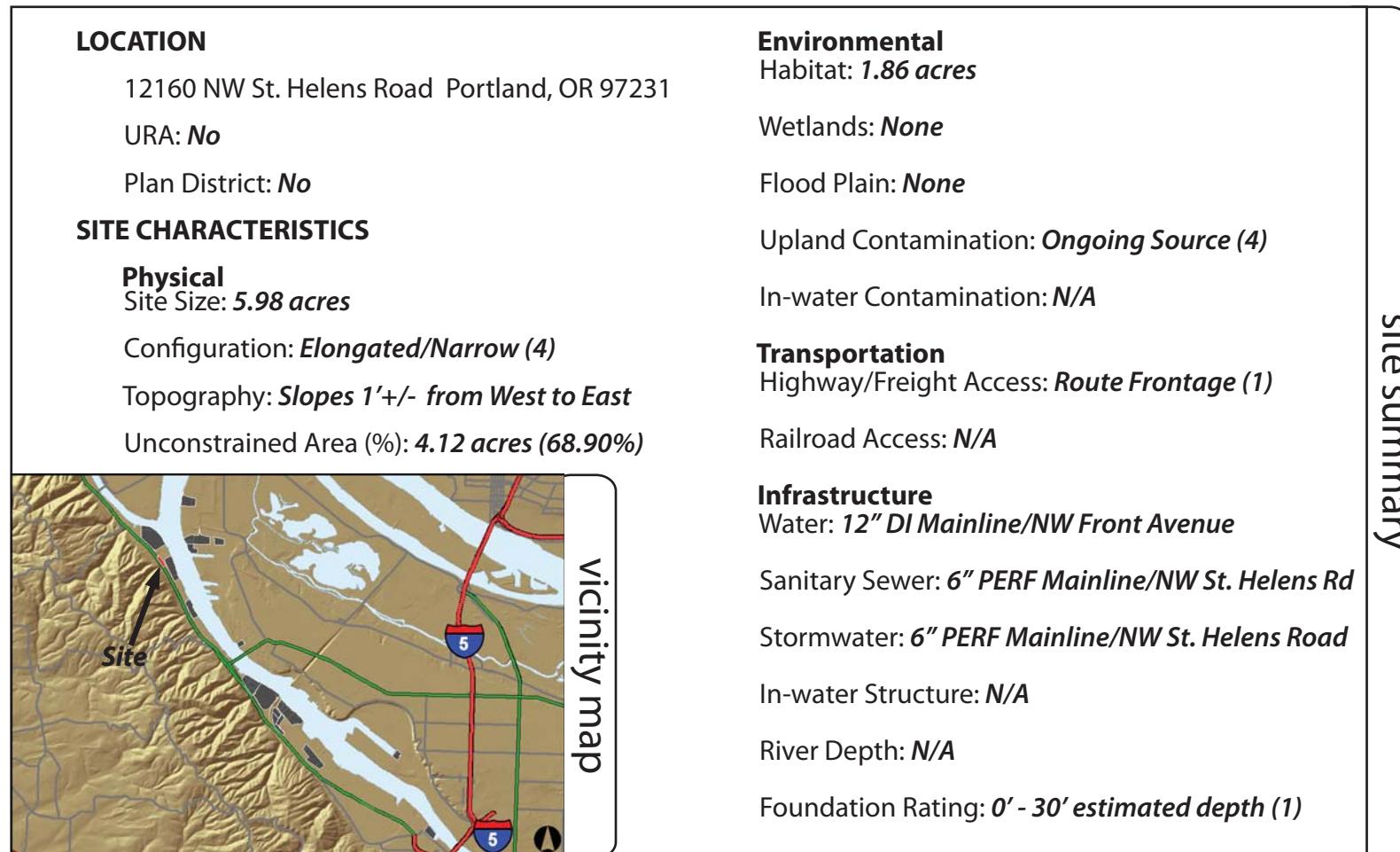
## Langley - St. John's Partnership



Score: 530 Relative Rank: 7

# Site #10

ACF Industrials Inc.



Score: 260 Relative Rank: 1

**LOCATION**

7200 NW Front Avenue Portland, OR 97210

URA: **Willamette Industrial**

Plan District: **Guild's Lake Industrial Sanctuary**

**SITE CHARACTERISTICS****Physical**

Site Size: **78.37 acres (38.13 acres Unimproved)**

Configuration: **Square (1)**

Topography: **Slopes 10'+/- from West to East**

Unconstrained Area (%): **10.56 acres (27.69%)**

**Environmental**

Habitat: **27.55 acres**

Wetlands: **None**

Flood Plain: **0.48 acres**

Upland Contamination: **Ongoing Source (4)**

In-water Contamination: **Upstream & Downstream Contamination (4)**

**Transportation**

Highway/Freight Access: **Connection within 1/4 mi. (2)**

Railroad Access: **Adjacent to Site (2)**

**Infrastructure**

Water: **24" DI Mainline/Onsite**

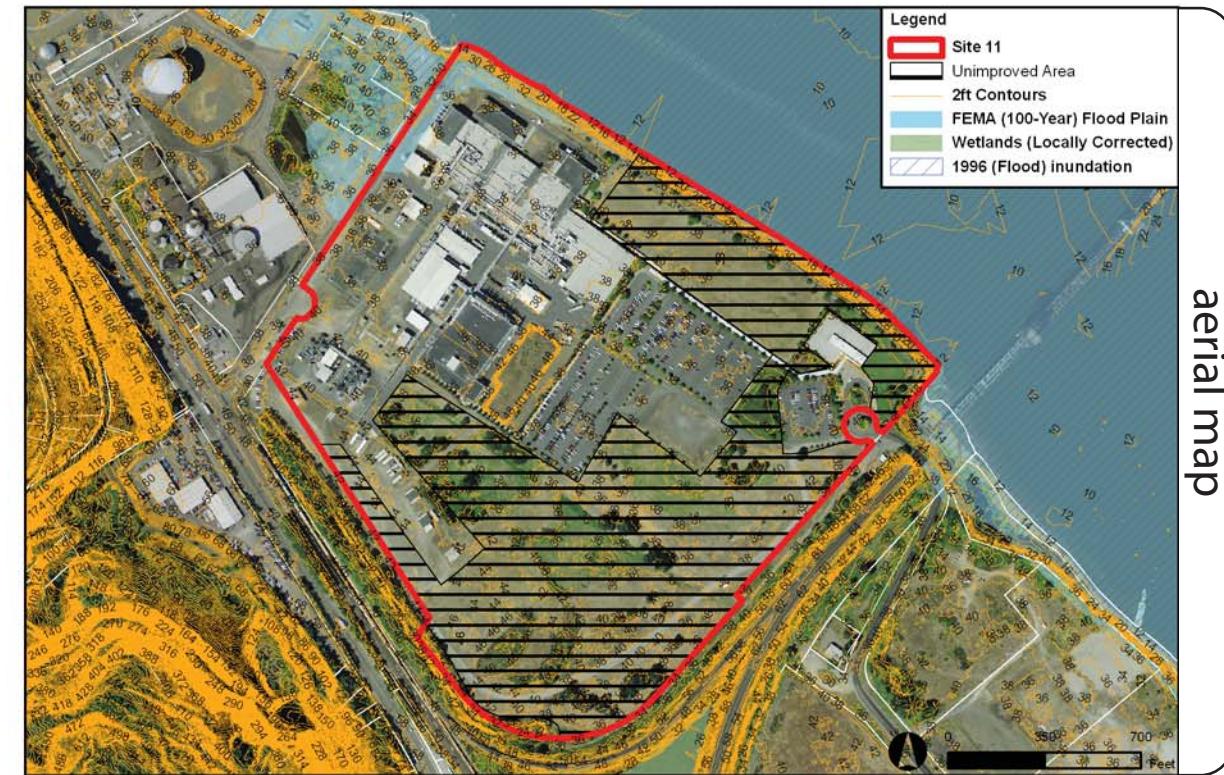
Sanitary Sewer: **8" CSP Mainline/Onsite**

Stormwater: **84" CSP Mainline/South PL**

In-water Structure: **No (4)**

River Depth: **10' - 20' (3)**

Foundation Rating: **60' estimated depth (2)**

**site summary****infrastructure map**

Score: 600 Relative Rank: 10

**LOCATION**

12500 NW Marina Way Portland, OR 97231

URA: No

Plan District: No

**SITE CHARACTERISTICS****Physical**

Site Size: 73.77 acres (30.80 acres Unimproved)

Configuration: Jogged (3)

Topography: Slopes 8'+/- from South to North

Unconstrained Area (%): 2.52 acres (8.18%)

**Environmental**  
Habitat: 26.68 acres

Wetlands: 11.50 acres

Flood Plain: 24.44 acres

Upland Contamination: *Non-Recalcitrant Chemicals Not a source (2)*

In-water Contamination: *No Significant Contamination (1)*

**Transportation**

Highway/Freight Access: *Connection with 1/4 mi. (2)*

Railroad Access: N/A

**Infrastructure**

Water: 8" DI Mainline/NW Marina Way

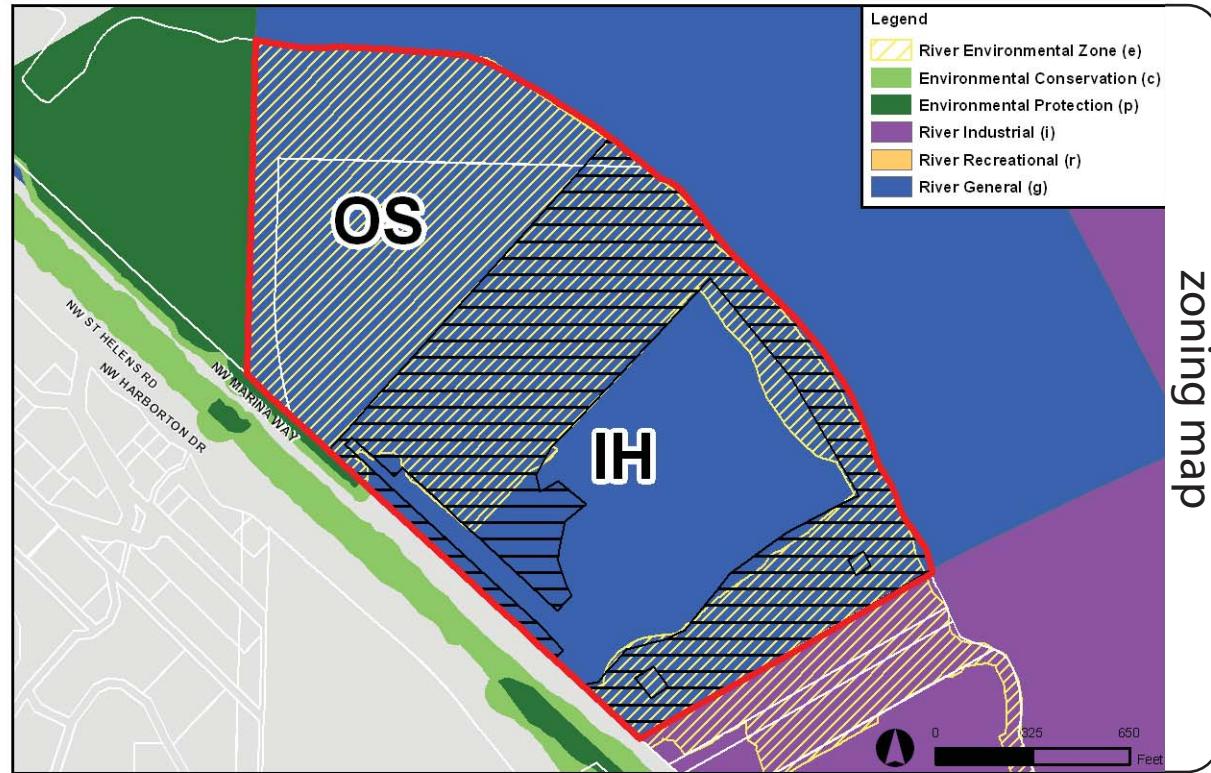
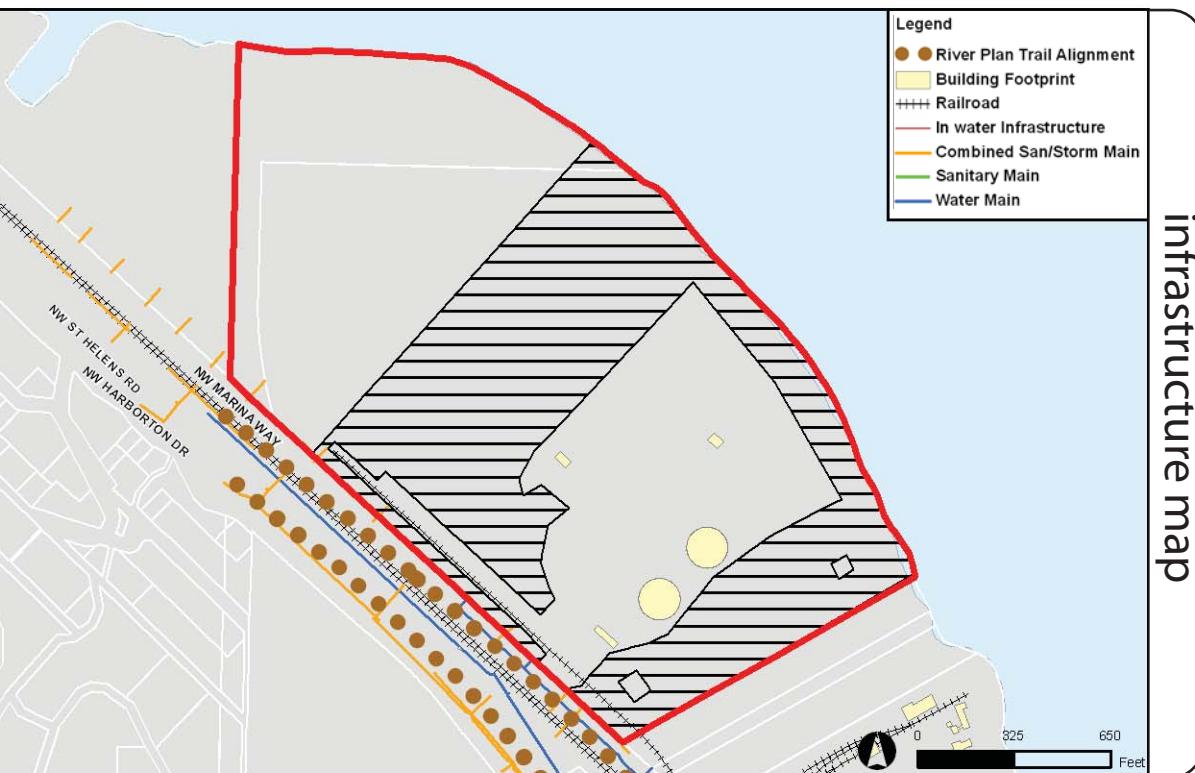
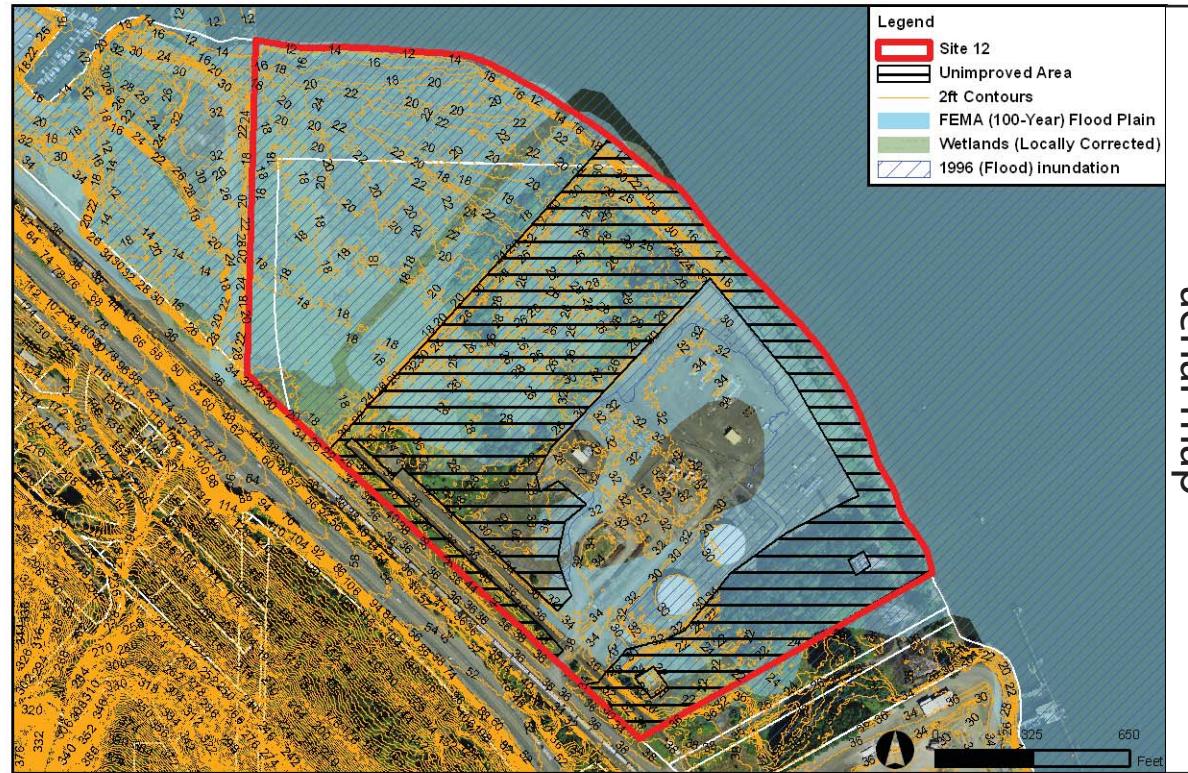
Sanitary Sewer: None

Stormwater: 24" CMP Mainline/NW Marina Way

In-water Structure: N/A

River Depth: 0' - 20' (3.5)

Foundation Rating: 0' - 30' estimated depth (1)

**site summary**

Score: 335 Relative Rank: 1

**LOCATION**

7540 NW St. Helens Road Portland, OR 97210

URA: No

Plan District: *Guild's Lake industrial Sanctuary*

**SITE CHARACTERISTICS****Physical**

Site Size: **40.77 acres (15.21 acres Unimproved)**

Configuration: **Jogged (3)**

Topography: **Slopes 16'+/- from West to East**

Unconstrained Area (%): **6.52 acres (42.86%)**

**Environmental**

Habitat: **5.52 acres**

Wetlands: **None**

Flood Plain: **7.94 acres**

Upland Contamination: **Ongoing Source (4)**

In-water Contamination: **Upstream & Downstream Contamination (4)**

**Transportation**

Highway/Freight Access: **Route Frontage (1)**

Railroad Access: **On Site (1)**

**Infrastructure**

Water: **12" CI Mainline/NW St. Helens Road**

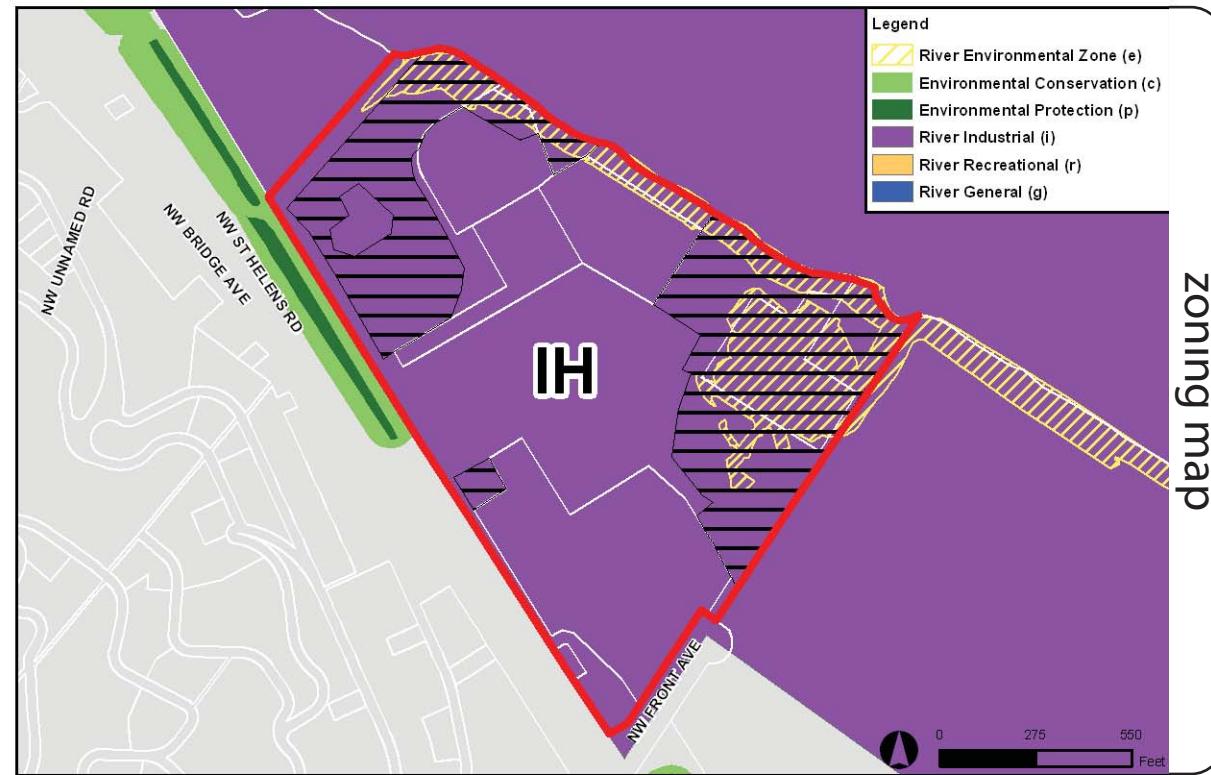
Sanitary Sewer: **36" CSP Mainline/West PL**

Stormwater: **12" SP Mainline/NW St. Helens Road**

In-water Structure: **Yes (1)**

River Depth: **10' - 40' (2.5)**

Foundation Rating: **0' - 30' estimated depth (1)**

**site summary**

Score: 485 Relative Rank: 6

# Site #14

# Owens-Corning Fiberglass Corp.

## LOCATION

11444 NW St. Helens Road Portland, OR 97231

URA: No

Plan District: No

## SITE CHARACTERISTICS

### Physical

Site Size: 35.26 acres (12.15 acres Unimproved)

Configuration: Rectangular (2)

Topography: Slopes 6'+/- from West to East

Unconstrained Area (%): 5.73 acres (47.16%)



**Environmental**  
Habitat: 4.61 acres

Wetlands: None

Flood Plain: 5.95 acres

Upland Contamination: Non-Recalcitrant Chemicals  
Not a source (2)

In-water Contamination: No Significant  
Contamination (1)

### Transportation

Highway/Freight Access: Connection within  
1/4 mi. (2)

Railroad Access: On Site (1)

### Infrastructure

Water: 12" DI Mainline/NW St. Helens Road

Sanitary Sewer: 18" CSP Mainline/NW St. Helens Rd

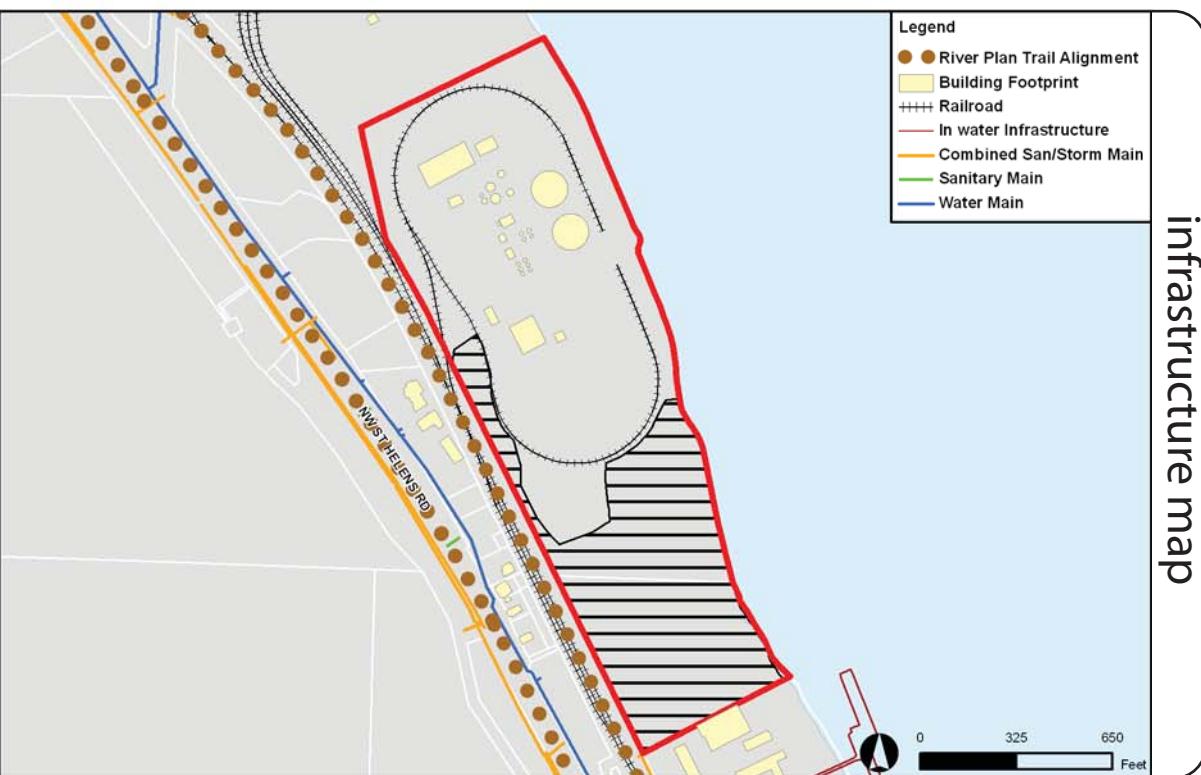
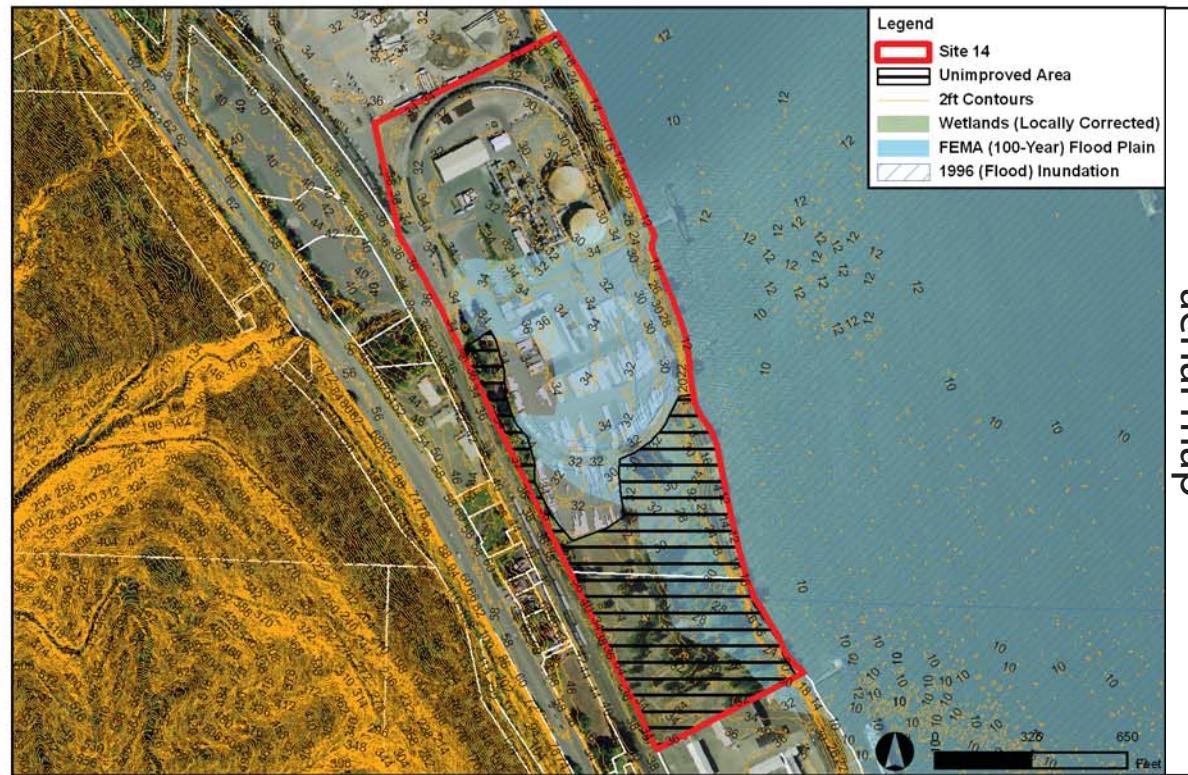
Stormwater: 18" CSP Mainline/NW St. Helens Road

In-water Infrastructure: Yes (1)

River Depth: 10' - 20' (3)

Foundation Rating: 0' - 30' estimated depth (1)

## site summary



Score: 330 Relative Rank: 1

**LOCATION**

5501 NW Front Avenue Portland, OR 97210

URA: No

Plan District: *Guild's Lake Industrial Sanctuary*

**SITE CHARACTERISTICS****Physical**

Site Size: **41.78 acres (11.07 acres Unimproved)**

Configuration: **Square (1)**

Topography: **Slopes 2'+/- from North to South**

Unconstrained Area (%): **11.07 acres (100.00%)**

**Environmental**

Habitat: **None**

Wetlands: **None**

Flood Plain: **None**

Upland Contamination: **Recalcitrant Chemicals Not a source (3)**

In-water Contamination: **N/A**

**Transportation**

Highway/Freight Access: **Route Frontage (1)**

Railroad Access: **N/A**

**Infrastructure**

Water: **24" DI Mainline/NW Front Avenue**

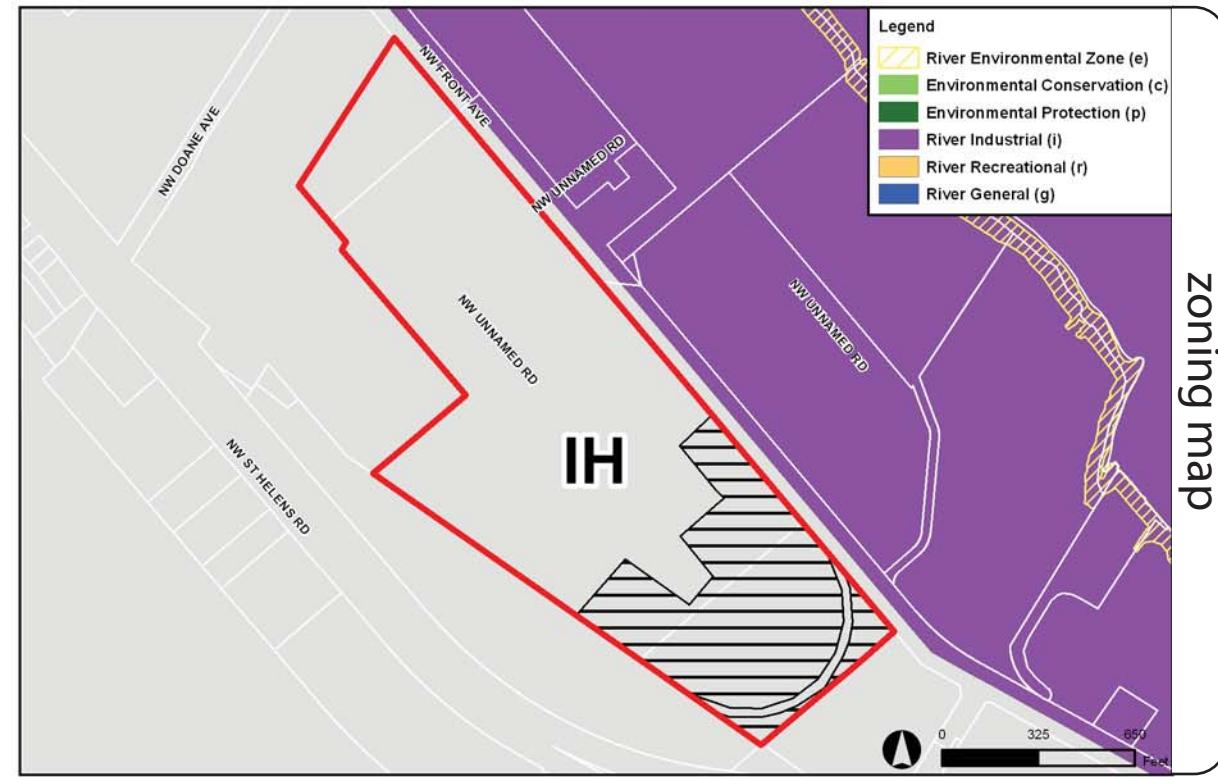
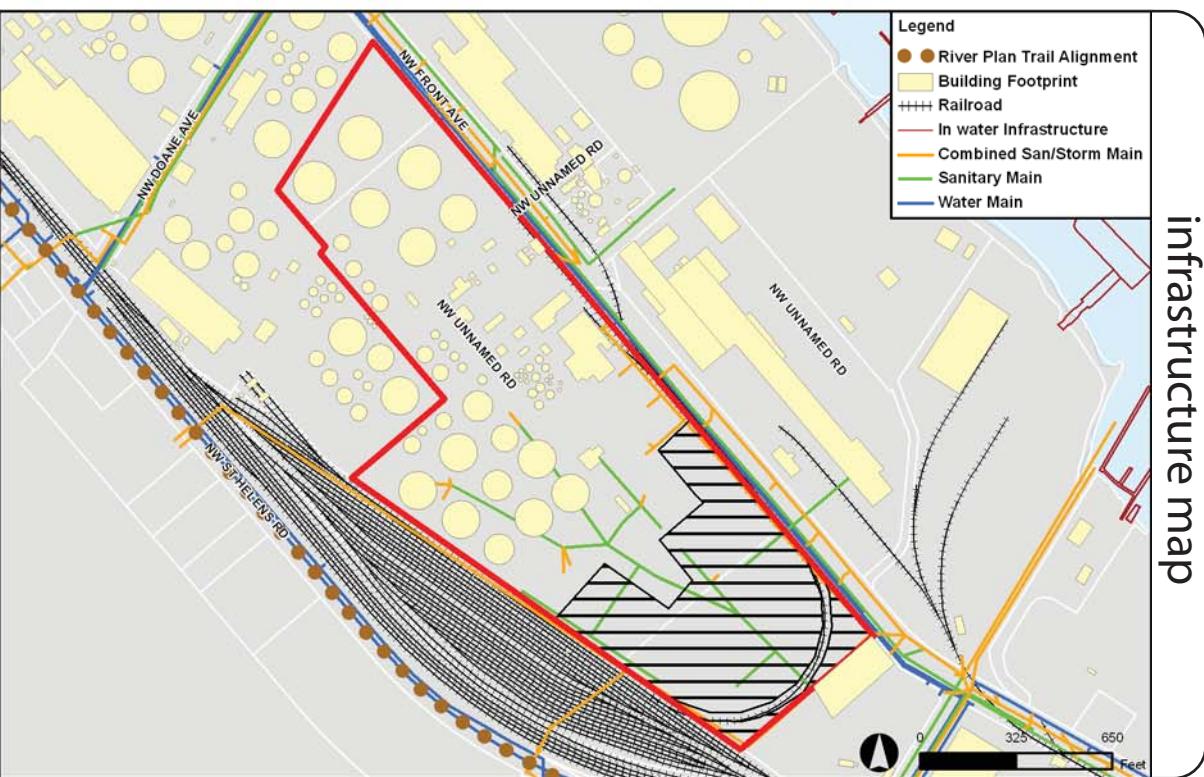
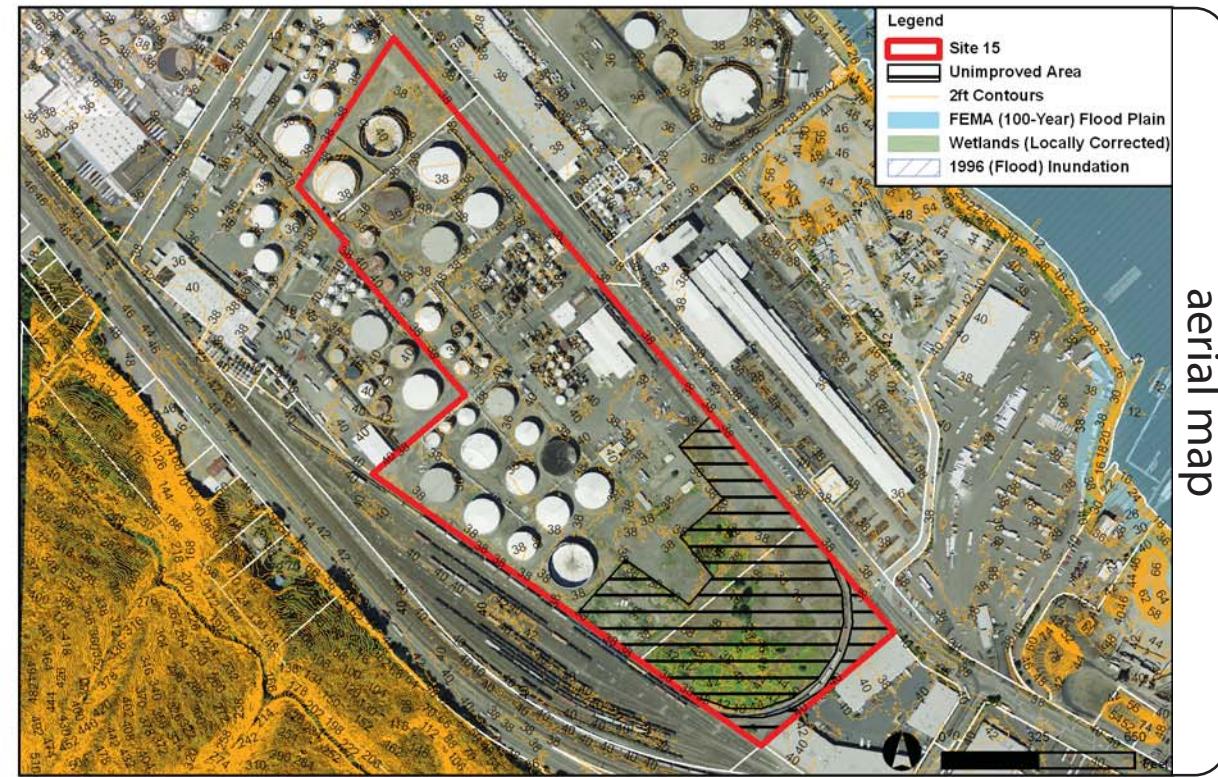
Sanitary Sewer: **24" CSP Mainline/Onsite**

Stormwater: **15" CSP Mainline/Onsite**

In-water Structure: **N/A**

River Depth: **N/A**

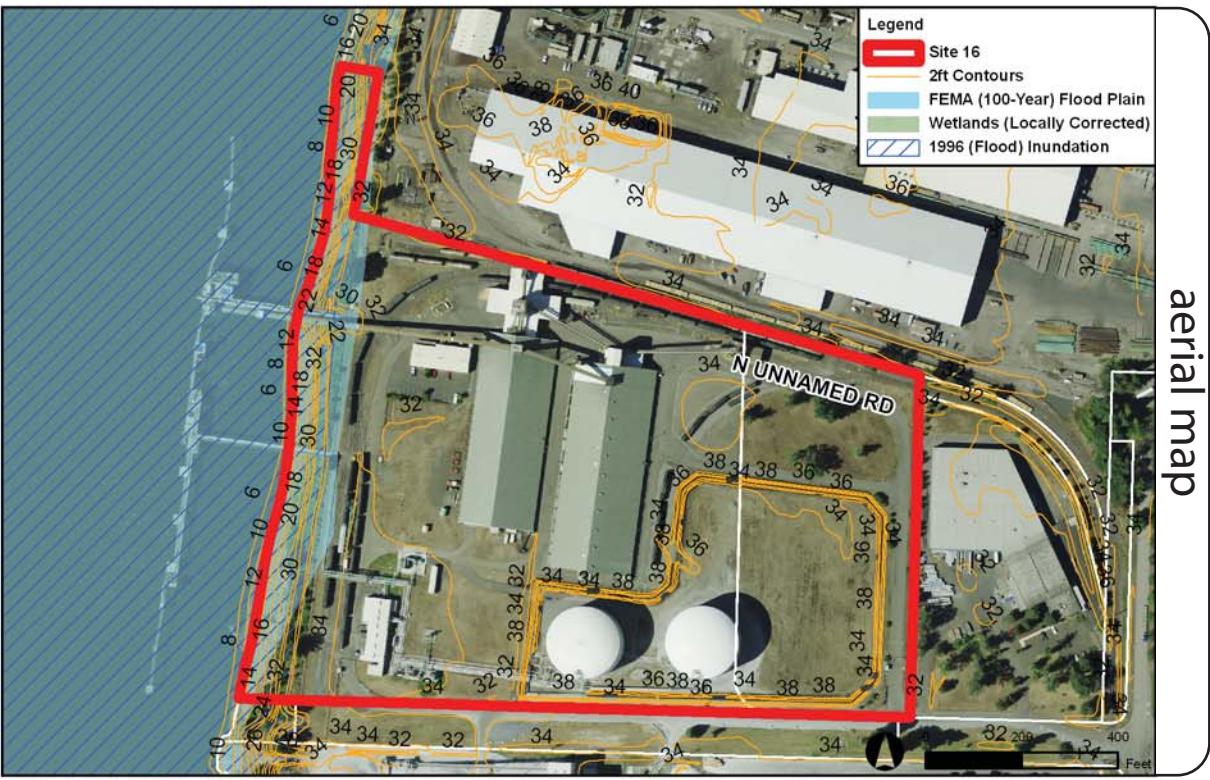
Foundation Rating: **60' - 90' estimated depth (3.5)**

**site summary**

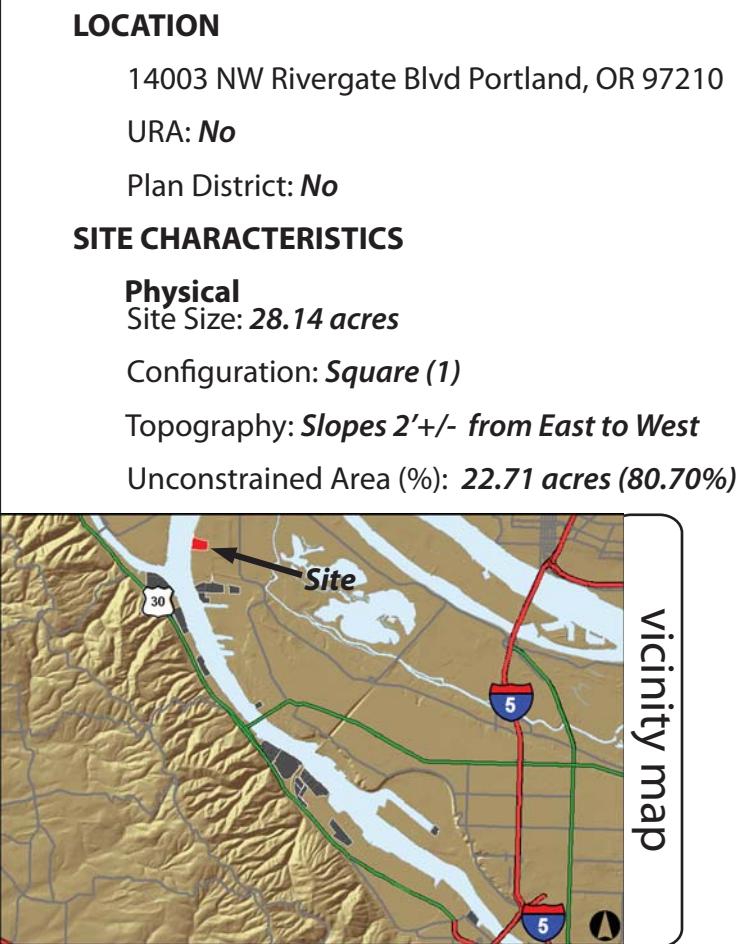
Score: 265 Relative Rank: 2

# Site #16

JR Simplot Company



site summary



**Environmental**

Habitat: **2.62 acres**

Wetlands: **None**

Flood Plain: **2.81 acres**

Upland Contamination: **Undocumented or Limited to soil (1)**

In-water Contamination: **Upstream & Downstream Contamination (4)**

**Transportation**

Highway/Truck Access: **Connection over 1/2 mi. + (4)**

Railroad Access: **On Site (1)**

**Infrastructure**

Water: **16" DI Mainline/NW Rivergate Blvd**

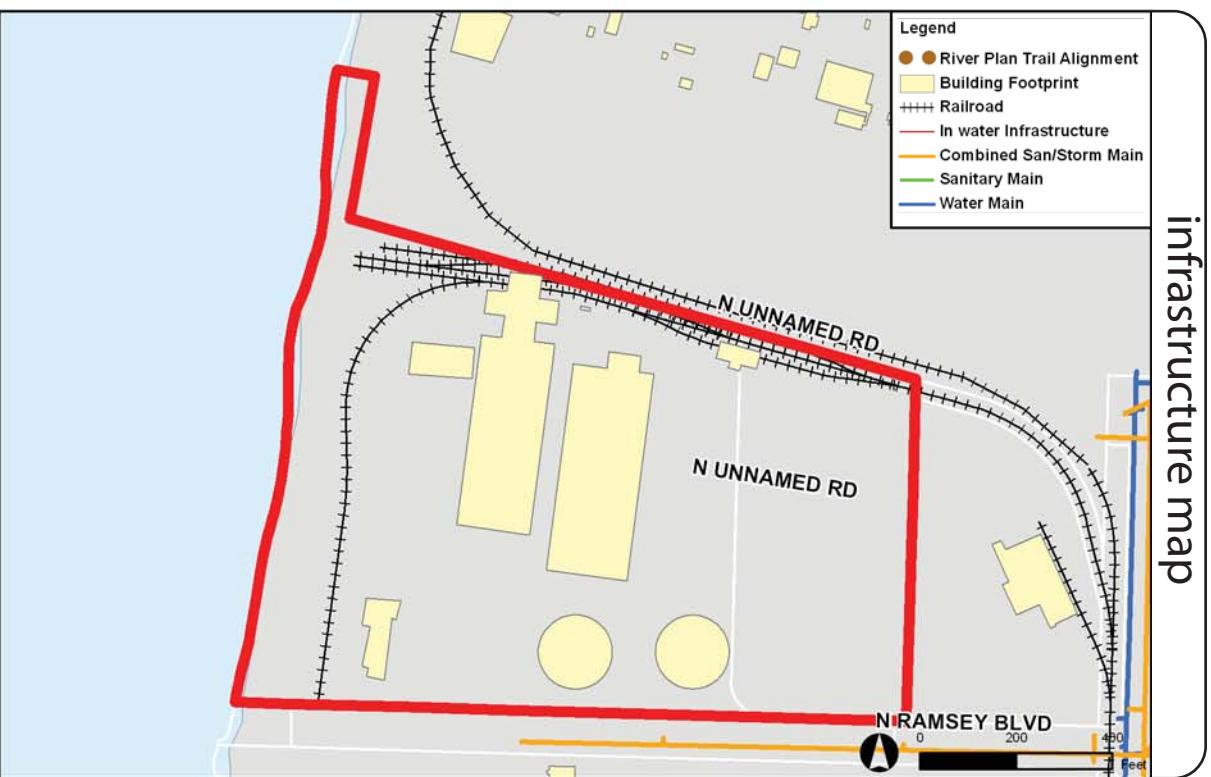
Sanitary Sewer: **12" CSP Mainline/NW Rivergate Bd**

Stormwater: **30" CSP Mainline/NW Rivergate Blvd**

In-water Structure: **Yes (1)**

River Depth: **20' - 40' (2)**

Foundation Rating: **150' - 180' estimated depth (4)**



Score: 450 Relative Rank: 4

# Site #17 Schnitzer Investment Corporation

## LOCATION

10400 N Burgard Way Portland, OR 97203

URA: No

Plan District: No

## SITE CHARACTERISTICS

### Physical

Site Size: 13.79 acres (3.08 acres Unimproved)

Configuration: Square (1)

Topography: Slopes 4' +/- from West to East

Unconstrained Area (%): 1.64 acres (53.24%)



## Environmental

Habitat: None

Wetlands: None

Flood Plain: 1.44 acres

Upland Contamination: *Recalcitrant Chemicals Not a source (3)*

In-water Contamination: *Upstream & Downstream Contamination (4)*

## Transportation

Highway/Freight Access: *Connection over 1/2 mi. + (4)*

Railroad Access: *On Site (1)*

## Infrastructure

Water: 12" DI Mainline/NW Front Avenue

Sanitary Sewer: 60" CSP Mainline/NW Front Avenue

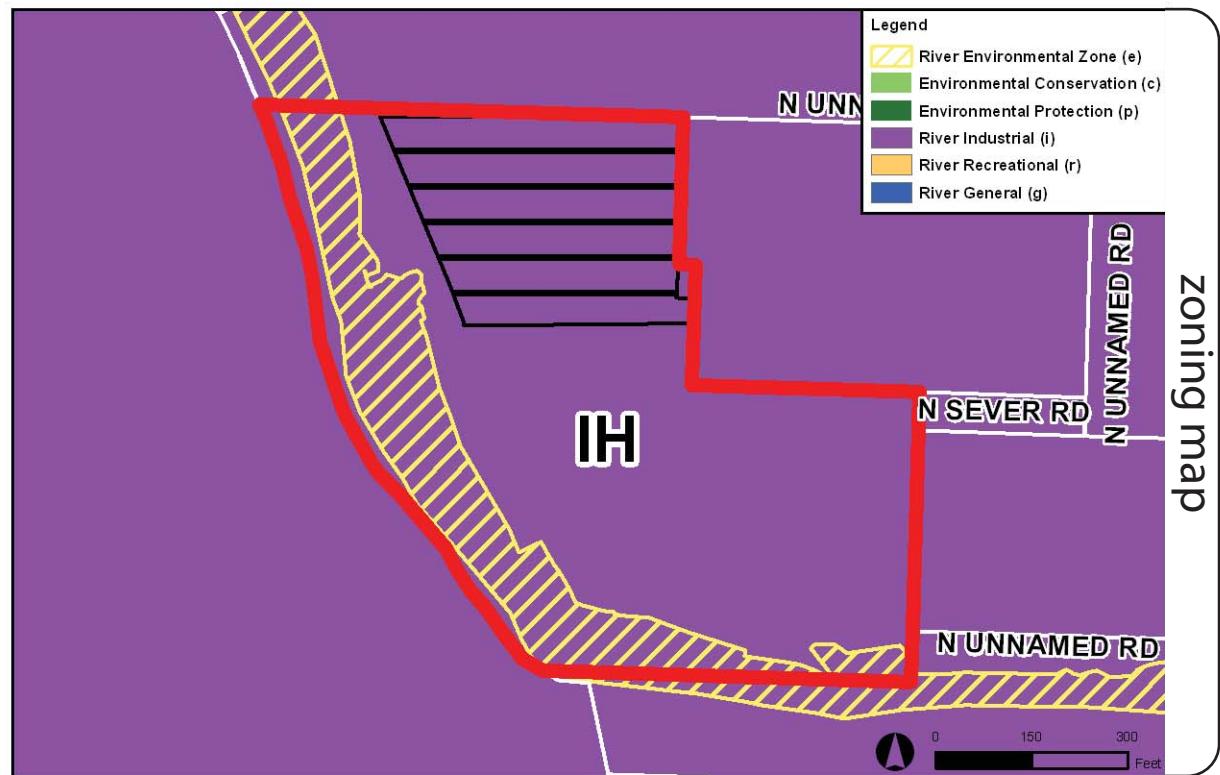
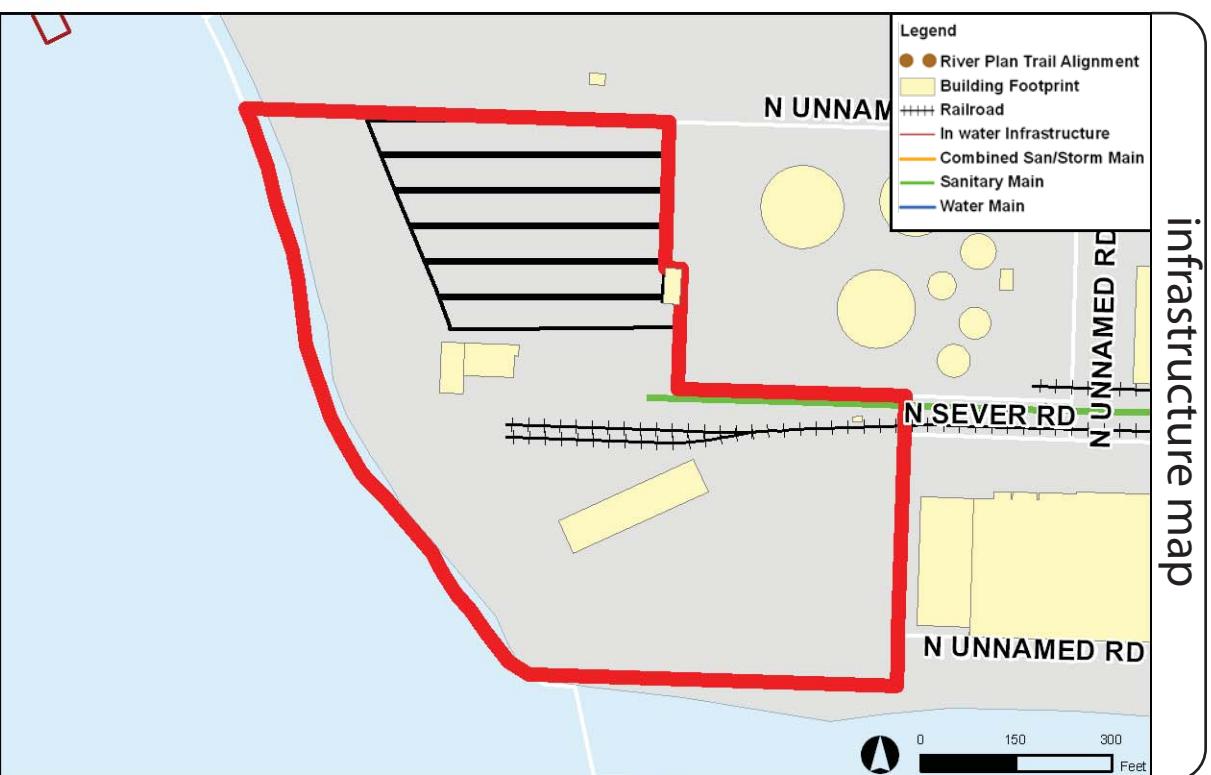
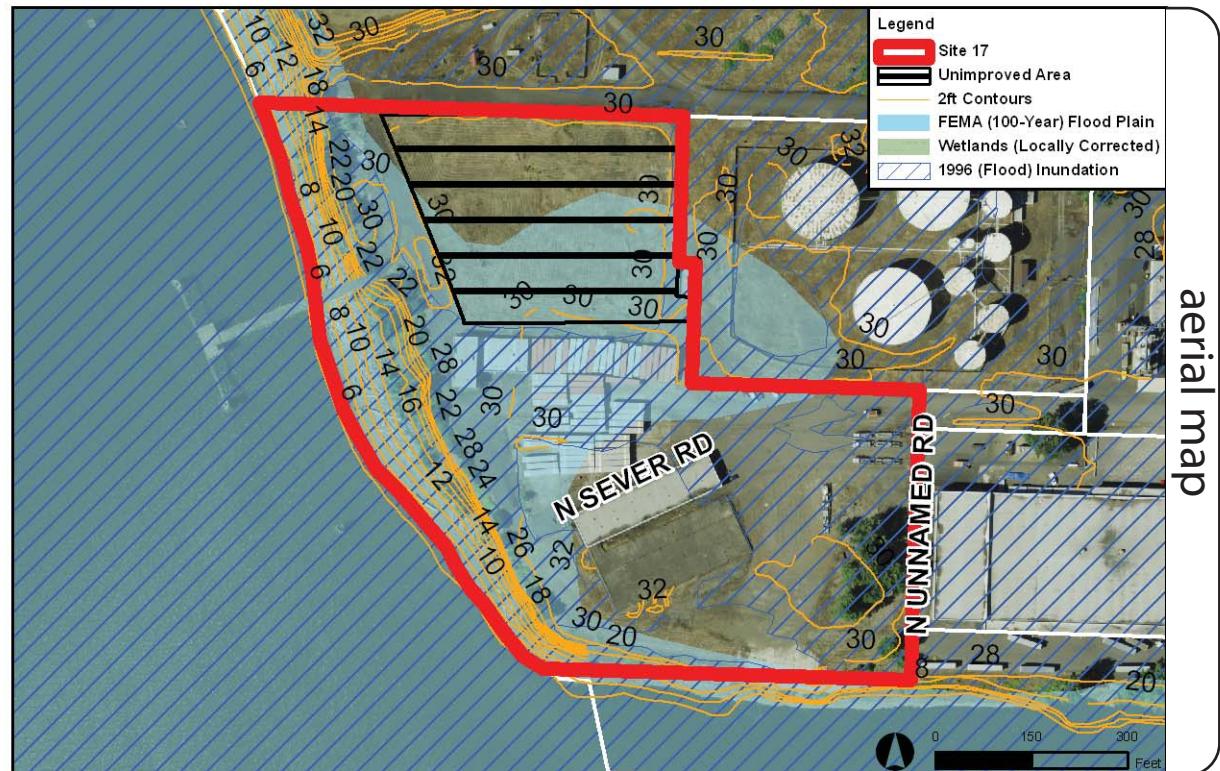
Stormwater: 60" CSP Mainline/NW Front Avenue

In-water Structure: Yes (1)

River Depth: 10' - 40' (2.5)

Foundation Rating: 150' - 180' (4)

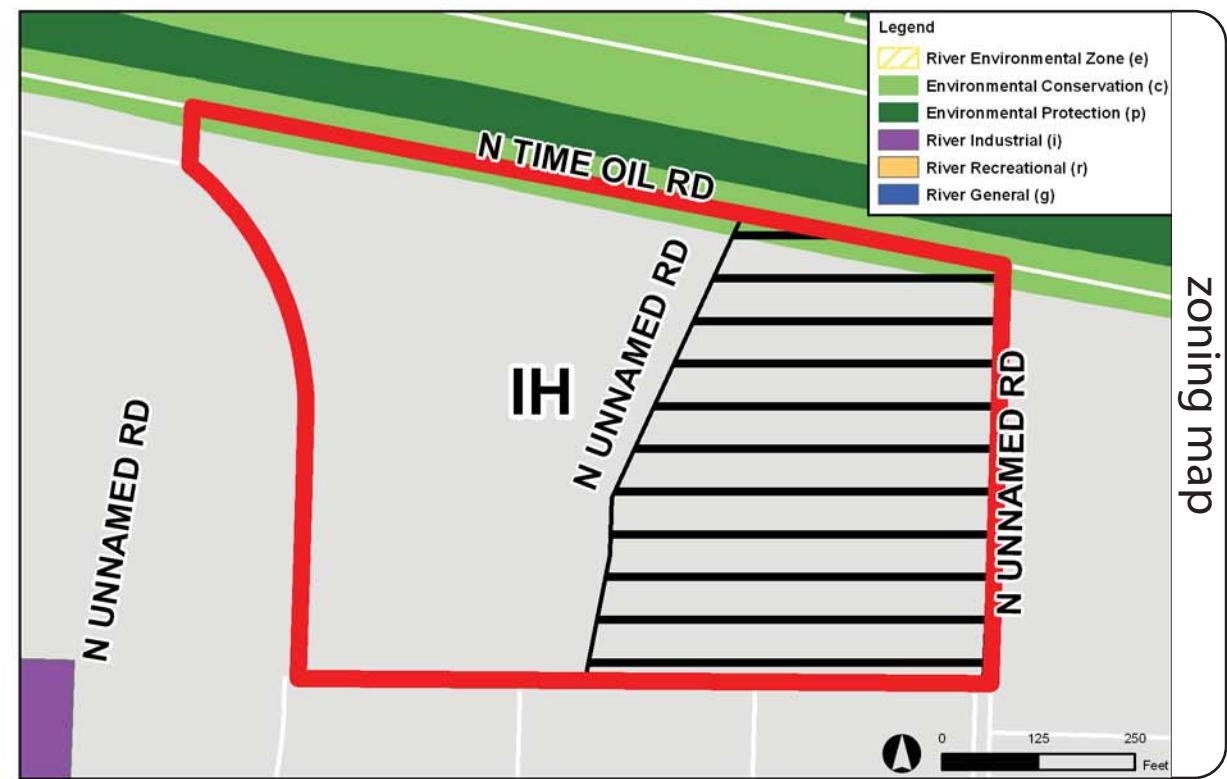
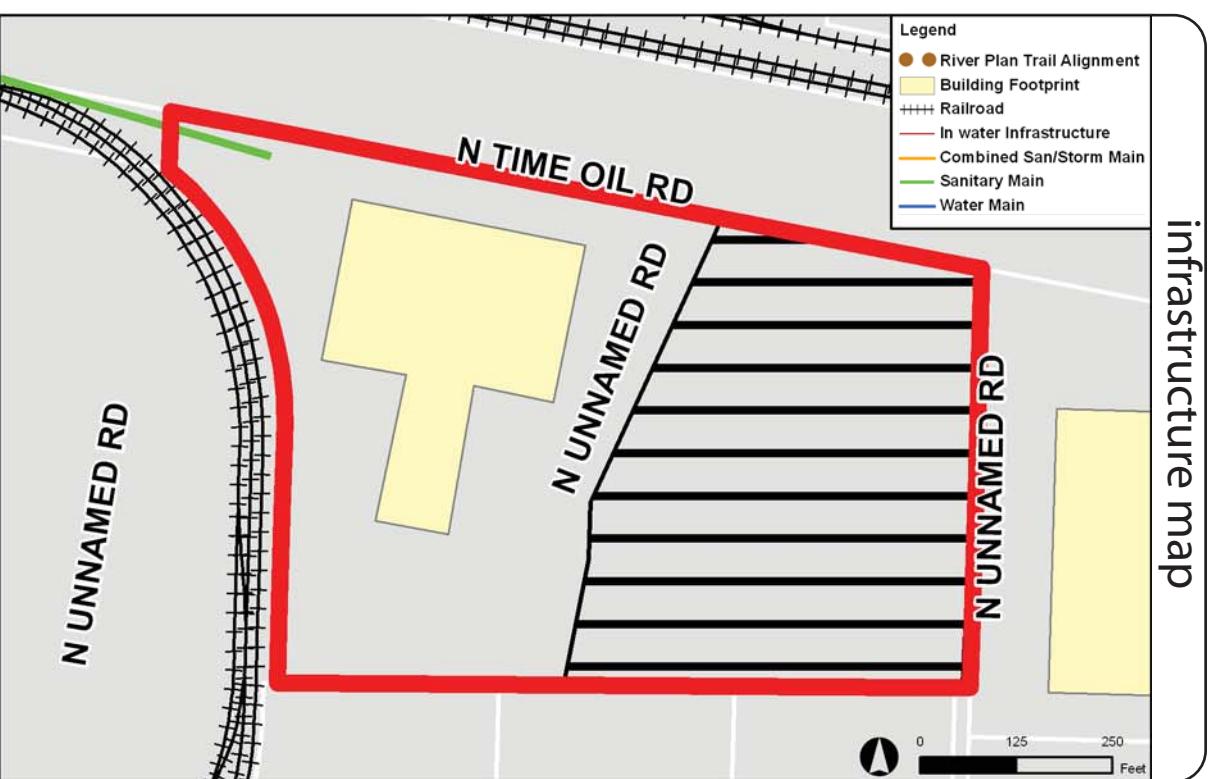
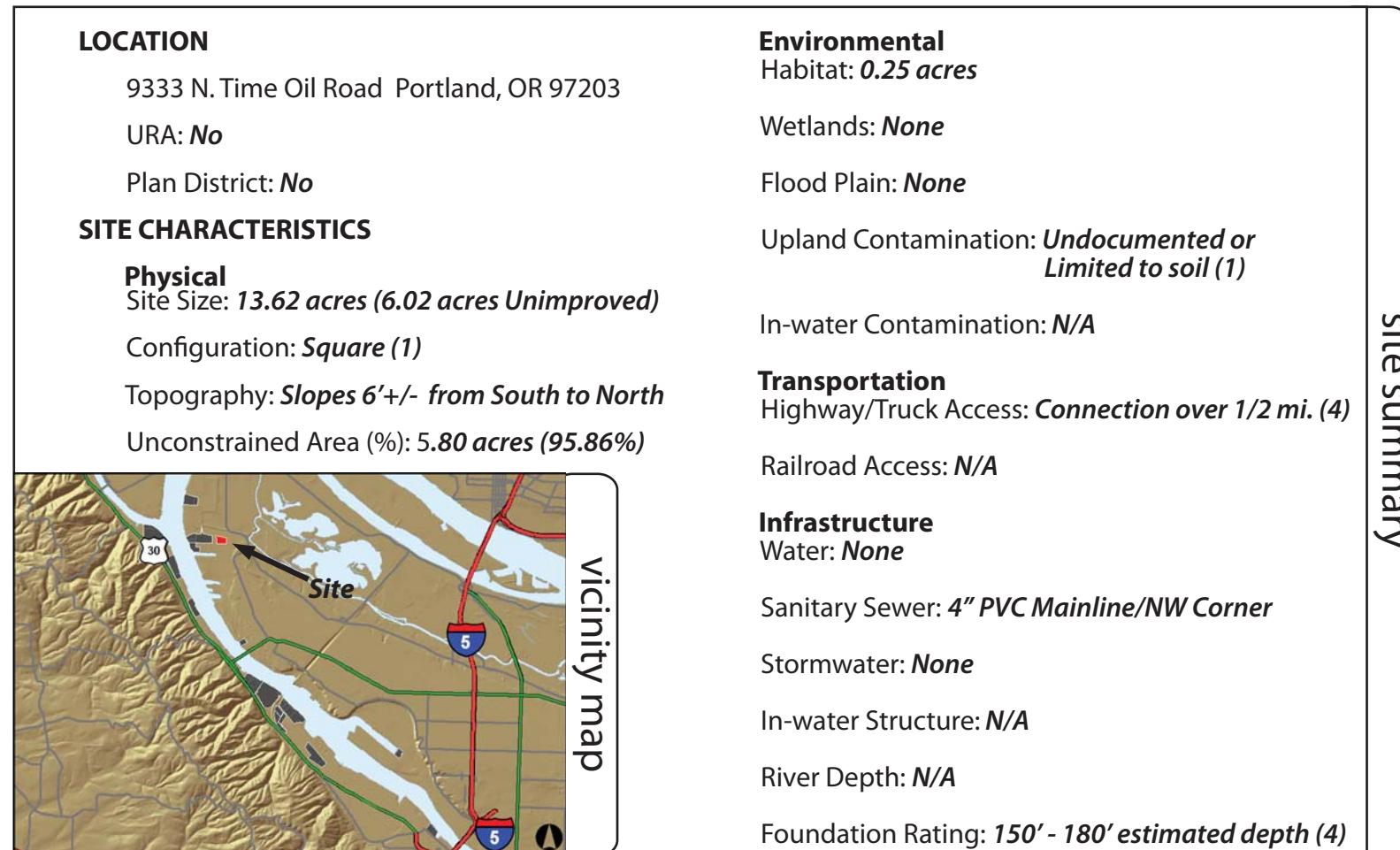
## site summary



Score: 585 Relative Rank: 9

# Site #18

## Ro-Mar Realty of Oregon Inc.



Score: 270 Relative Rank: 3

**TABLE 1**  
**SUMMARY OF ENVIRONMENTAL LIABILITY - UPLAND CONTAMINATION**  
**PORTLAND HARBOR REDEVELOPMENT INITIATIVE TECHNICAL ASSISTANCE**

Locator	Owner	Site Address	Classification	Affected Media	Soil Contaminants of Concern	GW Contaminants of Concern	Notes
1	Atochem North America, Inc.	6400 NW Front Ave	4	Soil/GW	Pesticides	Pesticides, VOCs, SVOCs, Metals	Documented chlorobenze-contaminated groundwater discharge to river, potential chromium-contaminated groundwater discharge to river.
2	Time Oil Co et al.	10350 N Time Oil Rd	3	Soil/GW	TPH, SVOCs, PAHs	PCP, TPH, PAHs, VOCs	PCP-contaminated groundwater plume captured by shallow extraction system, insufficient data to determine migration of petroleum-contaminated groundwater to the river.
3	Linniton Plywood Association	10504 NW St. Helens Rd	1	Soil	TPH, PAHs, Metals	None	DEQ <sup>1</sup> indicates site has no significant contaminant transport pathways to the river. Source control measures have been implemented to prevent overland transport/sheet flow to the river.
4	City of Portland (T-1N site)	2200 NW Front Ave	1	Soil	TPH	None identified	DEQ <sup>1</sup> indicates site has insignificant groundwater pathways and recommends no action.
5	City of Portland (lagoon site)	N. Basin Ave	2	Unknown	No data	No data	Suspect site requiring further investigation. Assume ranking of 2.
6	Esco Corp	6900 NW Front Ave	3	Soil/GW	Metals	Metals, Radioactive zirconium sand	Lead is thought to have migrated in groundwater to subject site from adjacent NL/Gould Superfund site; unknown potential for discharge to the river.
7	Gould Electronics Inc	5909 NW 61st Ave	4	Soil/GW	Metals	Metals	Identified metal-contaminated groundwater not likely to discharge to the river, DEQ <sup>1</sup> indicates site has insignificant groundwater pathways and recommends no action.
8	Aventis Cropscience USA LP	6200 NW St Helens Rd	4	Soil/GW	Herbicides, Dioxins and Furans, VOCs, SVOCs, Metals	Herbicides, Dioxins and Furans, VOCs, SVOCs, Metals	DEQ <sup>1</sup> indicates that two contaminant pathways between the property and the river are complete (groundwater and groundwater discharge to City Outfall 22B).
9	Langley - St Johns Partnership	8970 N Bradford St	3	Soil/GW	TPH	TPH, VOCs	Source control evaluations are ongoing. Some source control measures have been implemented.
10	ACF Industrials, Inc.	12160 NW St Helens Rd	4	Soil/GW	TPH	TPH, VOCs, SVOCs, Metals	DEQ <sup>1</sup> indicates site has insignificant groundwater pathways and recommends no source control measures. A no further action determination was issued by DEQ in 2007.
11	Siltronic Corp	7200 NW Front Ave	4	Soil/GW	VOCs, PAHs, SVOCs, Herbicides	VOCs, PAHs, phenols, 2,4-D	Chlorinated solvent contamination is present at portions of the site. Impacts from NW Natural (Gasco) manufactured gas plant (MGP) are present at the north side of the site. Three complete pathways for migration of contaminants to the river (groundwater, stormwater, bank erosion).
12	Portland General Electric CO	12500 NW Marina Way	2	Soil/GW	TPH, PAHs	TPH, PAHs	DEQ <sup>1</sup> indicates site has insignificant groundwater pathways and recommends no action.
13	Northwest Natural Gas Co	7540 NW St Helens Rd	4	Soil/GW	PAHs, VOCs, Metals, TPH	VOCs, Metals, TPH	Three complete pathways for migration of contaminants to the river (groundwater, stormwater, bank erosion) are present at the site.
14	Ownes-Corning Fiberglas Corp	11444 NW St Helens Rd	2	Soil	TPH	Unknown	DEQ <sup>1</sup> indicates site has insignificant groundwater pathways and recommends no source control actions.
15	Chevron USA Inc.	5501 NW Front Ave	3	Soil/GW	TPH, PAHs, VOCs, Metals	TPH, BTEX, Metals, SVOCs	Unknown potential for migration of contaminated groundwater to river, stormwater discharges appear to be the only pathway of concern on the site
16	JR Simplot Company	14003 N Rivergate Blvd	1	Soil	TPH	Unknown	No confirmed contamination at the property. No identified contaminant transport pathway to the river.
17	Schnitzer Investment Corp	2N/1W/S35	3	Soil/GW	TPH, VOCs, Metals, PCBs	Contamination is present - constituents unclear	Some groundwater contamination, but contaminants are unclear. Source control measures have been implemented; however, monitoring and investigation are continuing.
18	Ro-Mar Realty of Oregon Inc.	9333 N Time Oil Rd	1	None	PCBs	None	A no further action determination has been issued by DEQ. No complete transport pathways between the property and the river have been identified.

**Notes:**

<sup>1</sup> Milestone Report for Upland Source Control at the Portland Harbor Superfund Site , prepared by Oregon Department of Environmental Quality, September 2008.

GW - Groundwater

VOC - Volatile organic compounds

SVOC - Semi-volatile organic compound

PCBs - Polychlorinated biphenyls

PAHs - Polycyclic aromatic hydrocarbons

TPH - Petroleum hydrocarbons (includes gasoline, diesel, and oil)

**TABLE 2**  
**SUMMARY OF ENVIRONMENTAL LIABILITY - RIVER CONTAMINATION**  
**PORTLAND HARBOR REDEVELOPMENT INITIATIVE TECHNICAL ASSISTANCE**

Locator	Owner	Site Address	Conditions at Property			Conditions Upstream			Conditions Downstream			Classification
			Significant <sup>1</sup> Contamination in River at Property (Y/N)?	Size of Significantly Contaminated Area	Number of Exposure Scenarios <sup>2</sup>	Significant Contamination in River at Upstream Adjacent Property (Y/N)?	Size of Significantly Contaminated Area	Number of Exposure Scenarios	Down	Size of Significantly Contaminated Area	Number of Exposure Scenarios	
1	Atochem North America, Inc.	6400 NW Front Ave	Yes	Large	4-9	Yes	Medium	1-3	Yes	Medium	1-4	4
2	Time Oil Co et al.	10350 N Time Oil Rd	No	--	--	No	--	--	No	--	--	1
3	Linnton Plywood Association	10504 NW St. Helens Rd	No	--	--	Yes	Small	1	No	--	--	2
4	City of Portland (T-1N site)	2200 NW Front Ave	No	--	--	No	--	--	Yes	Medium	1-5	2
5	City of Portland (lagoon site)	N. Basin Ave	Yes	Large	1-3	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	Yes	Large	1-6	3
9	Langley - St Johns Partnership	8970 N Bradford St	Yes	Medium	1-3	Yes	Medium	1-4	Yes	Small	1-2	4
11	Siltronics Corp	7200 NW Front Ave	Yes	Medium	1-4	Yes	Large	4-9	Yes	Large	1-4	4
12	Portland General Electric CO	12500 NW Marina Way	No	--	--	No	--	--	No	--	--	1
13	Northwest Natural Gas Co	7540 NW St Helens Rd	Yes	Large	1-4	Yes	Medium	1-4	Yes	--	--	4
14	Ownes-Corning Fiberglas Corp	11444 NW St Helens Rd	No	--	--	No	--	--	No	--	--	1
16	JR Simplot Company	14003 N Rivergate Blvd	Yes	Small	1	Yes	Small	2	Yes	Large	3-8	4
17	Schnitzer Investment Corp	2N/1W/S35	Yes	Medium	2-5	n/a	n/a	n/a	Yes	Large	1-3	4

**Notes:**<sup>1</sup> Contamination is deemed significant if a nearshore area is designated an initial Area of Potential Concern (iAOPC) by the Lower Willamette Group (2007).<sup>2</sup> Exposure scenarios include combined human health and ecological exposure scenarios, as presented in Portland Harbor RI/FS, Comprehensive Round 2 Site Characterization Summary and Data Gaps Analysis Report, dated February 21, 2007 .<sup>3</sup> The Portland Lagoon site is located at the east terminus of the Swan Island Lagoon. There is no upstream flow at this property.

-- = Not applicable

**TABLE 3**  
**SUMMARY OF GEOTECHNICAL AND WATERFRONT CONSTRAINTS**  
**PORTLAND HARBOR REDEVELOPMENT INITIATIVE TECHNICAL ASSISTANCE**

Locator	Owner	Site Address	Estimated Depth to bedrock, feet bgs	Foundation Rating	Foundation Score	Water Depth	Water Depth Rating	Water Depth Score
1	Atochem North America, Inc.	6400 NW Front Ave	90	Fair-Poor	3.5	10-40	Fair-Good	2.5
2	Time Oil Co ET AL	10350 N Time Oil Rd	150-180	Poor	4	20-40	Good	2
3	Linnton Plywood Assn	10504 NW St. Helens Rd	30-60	Good	2	10-40	Fair-Good	2.5
4	City of Portland (T-1N site)	2200 NW Front Ave	0-30	Excellent	1	10-40	Fair-Good	2.5
5	City of Portland (lagoon site)	N Basin Ave	90	Fair-Poor	3.5	0-40	Poor-Good	2.75
6	Esco Corp	6900 NW Front Ave	60-90	Fair	3	Not on river	N/A	N/A
7	Gould Electronics Inc	5909 NW 61st Ave	60	Good	2	Not on river	N/A	N/A
8	Aventis Cropscience USA LP	6200 NW St Helens Rd	60	Good	2	Not on river	N/A	N/A
9	Langley - St Johns Partnership	8970 N Bradford St	120-150	Poor	4	20-40	Good	2
10	ACF Industrials, Inc	12160 NW St Helens Rd	0-30	Excellent	1	Not on river	N/A	N/A
11	Siltronic Corp	7200 NW Front Ave	60	Good	2	10-20	Fair	3
12	Portland General Electric CO	12500 NW Marina Way	0-30	Excellent	1	0-20	Poor-Fair	3.5
13	Northwest Natural Gas Co	7540 NW St Helens Rd	0-30	Excellent	1	10-40	Fair-Good	2.5
14	Ownes-Corning Fiberglas Corp	11444 NW St Helens Rd	0-30	Excellent	1	10-20	Fair	3
15	Chevron USA Inc	5501 NW Front Ave	60-90	Fair-Poor	3.5	Not on river	N/A	N/A
16	J R Simplot Company	14003 N Rivergate Blvd	150-180	Poor	4	20-40	Good	2
17	Schnitzer Investment Corp	2N/1W/S35	150-180	Poor	4	10-40	Fair-Good	2.5
18	Ro-Mar Realty of Oregon Inc.	9333 N Time Oil Rd	150-180	Poor	4	Not on river	N/A	N/A

1 = (depth to bedrock &lt;30')

2 = (depth to bedrock 30-60')

3 = (depth to bedrock 60-90')

4 = (depth to bedrock &gt;90')

1 = (water depth &gt;40')

2 = (water depth 20-40')

3 = (water depth 10-20')

4 = (water depth 0-10')