

I. PHASE 1 INVENTORY

A. PURPOSE OF PHASE 1

Traded-sector companies sell goods to buyers outside of the Metro region, bringing additional wealth into the region. Attracting and retaining traded-sector industrial companies is important for the Portland region's long-term economic prosperity. Establishing a supply of development-ready large sites is a critical component of a strategy to attract and retain large industrial firms and generate traded-sector jobs. Because the Portland region must compete with other metropolitan areas for such traded-sector industries, it must be able to provide a reasonable inventory of available sites.

Phase 1 of the Project was led and funded by a Project Management Team (PMT) which includes: Business Oregon, Metro, The Oregon Chapter of NAIOP the Commercial Real Estate Development Association, Port of Portland, and Portland Business Alliance. Throughout the Project, outreach was done with local jurisdictions, regional developers and brokers, and other public and private groups.

Phase 1 produced an inventory of sites with 25 net developable acres that differentiates between development-ready sites (Tier 1) and sites that need additional work (Tier 2 and Tier 3). The Phase 1 inventory also identifies general, order-of-magnitude, investments necessary to move Tier 2 sites to development-ready status³. Tier 3 sites, while identified, were not analyzed on the same level. The product of this phase is a database of industrial sites to support the region's economic development efforts. The database will provide a common understanding of the barriers and investments needed to make these sites development-ready and ensure the region's competitiveness in the global marketplace. It will lay a foundation for innovative financing policy and tools, and inform the work of locational jurisdictions, the Community Investment Initiative Leadership Council, Greater Portland Inc., Metro, the Port of Portland, and the State.

A definitional distinction exists between a parcel or tax lot and a site. This distinction is critical to understanding the underlying purpose of this study. Group Mackenzie and the PMT evaluated sites as companies need to buy or lease sites, not parcels or tax lots. For purposes of this study, a site could be a single owner parcel or multiple adjacent parcels that can be combined into a single site. Combined parcels could include adjacent parcels in the same ownership and/or in multiple ownerships. In all cases, this is an inventory of sites that have 25 acres or greater of net developable land. Net buildable land is gross acres minus acres constrained by wetlands, floodplain, or slope.

³ For specific site development costs, reference Volume 2 of this report.

B. PHASE 1 METHODOLOGY

1. *Land Use Planning and Geographic Information System (GIS) Analysis*

This project focused on larger industrial sites, 25 acres and greater, in the metropolitan area (inside the UGB and selected urban reserves). The focus on 25 acres and above is based on two sources, one planning related and one market related. Metro's 2009 Urban Growth Report⁴ (UGR) defines large lot industrial as parcels 25 acres and greater. The UGR identified a shortage of 50-acre-and-greater sites in the metropolitan area for new traded sector investment. Additionally, Business Oregon has identified the characteristic minimum parcel size and other site requirements for most cluster recruitment targets. Most of these cluster industry recruitments require net developable sites of at least 25 acres with a number of clusters requiring much larger sites.

To identify the inventory of market-ready sites in the region, the project applied a series of filters from the perspective of potential employers. Starting with Metro's 2009 Buildable Lands Inventory, supplemented with information from local jurisdictions throughout the region, the analysis identified parcels with the following characteristics:

1. Inside the UGB or selected urban reserves;
2. Zoned or planned for industrial uses;
3. Containing at least 25 net buildable, vacant acres after accounting for wetlands, floodplain, and slope constraints; and
4. Not set aside by existing firms for future expansion needs.

The first step in this analysis (Figure 2; step 1) was to complete a GIS-based analysis on the vacant land⁵ within the Metro Urban Growth Boundary (UGB) and examine all vacant parcels that were: 1) 25 or greater gross acres; and 2) industrially zoned; or 3) comprehensive planned for industrial; or 4) concept planned for industrial; or 5) Urban Reserves land that was planned for future industrial development. The study began with nearly 4,000 vacant industrial tax lots; however, only 95 of these were larger than 25 gross acres and in single ownership. Once an inventory of single 25 gross acre parcels was established, the PMT applied their local market knowledge to create sites where aggregation opportunities were possible. Select Urban Reserves sites that have industrial development potential were also added at the request of local jurisdictions.

Once this inventory was established, it was necessary to determine the net developable acreage of these sites as this study only examines parcels and/or sites with 25 net developable acres (Figure 2; step 2). Using GIS data⁶, wetlands, streams, FEMA 100 year floodplain, and slope⁷ (10% and greater) were calculated for each site in order to move from gross acres to net developable acres. Goal 5 regulations, individual jurisdiction development buffers or environmental overlays were not taken into consideration at this stage in the analysis due to time and budget constraints. Information on the parcels/sites that did not meet this screening requirement can be found in Section C of this report. Section C also includes information on sites that were user owned and held for future expansion. Once sites that did not have 25 net developable acres were excluded from this inventory, the infrastructure and transportation evaluation of the inventory could begin.

Using Business Oregon and industry expertise from the PMT and others, the sites identified through this initial process were further analyzed as to their market readiness based on sufficiency of infrastructure and transportation facilities, brownfield or environmental issues, need for land assembly, need for annexation, and availability for lease or sale (Figure 2; step 3). This more refined analysis resulted in an inventory of existing or potential

⁴ The urban growth report informs a regional vision for how and where to grow over the next 20 years. For more information, visit <http://www.oregonmetro.gov/index.cfm/go/by.web/id=29959>.

⁵ This data was available as a GIS shapefile and was completed in June 2008. This data was provided by Metro and represents lands appearing unimproved on aerial photography, without regard to developability and accessibility.

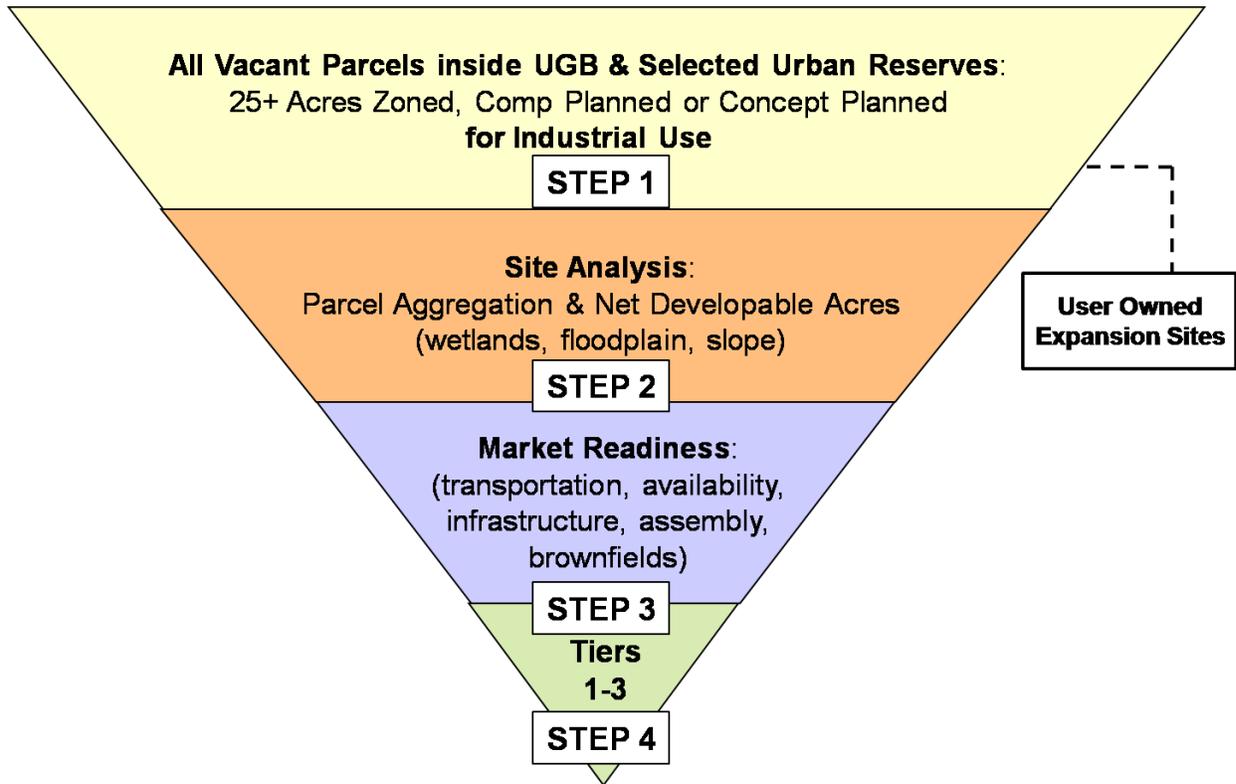
⁶ All data was provided by Metro. This included: wetlands shape file from 1998 based on the National Wetlands Inventory; streams shape file from 2008; FEMA 100 year floodplain data from 2004; and slope 7-25% data, based on a LiDAR raster conversion; brownfield data based on DEQ datasets

⁷ Preliminarily, slope data above 7% was used but the data was not reliable and the Consultant used 10% and greater slopes. Although, slopes under 7% are best for large scale industrial development, the data was not reliable for this study.

industrial sites that were assigned a tier based on market readiness or estimated length of time before they can be developed (Figure 2; step 4). The methodology for the tiering process was built upon the well recognized State Industrial Site Certification process along with modifications that were needed to fit the scope of this study. All additions and modifications were agreed upon by consensus of Group Mackenzie and the PMT.

Tier 1 sites could be development ready within 180 days (six months). With sufficient resources and expeditious jurisdiction approvals, Tier 2 sites could be development ready in seven to 30 months. Sites that will require more than 30 months to be ready for development were designated Tier 3.

Figure 2: Phase 1 Analysis Process



Source: Group Mackenzie

2. Infrastructure

The Phase 1 infrastructure analysis involved evaluating the existing public utility systems for their capacity to serve the selected Phase 1 industrial sites. Group Mackenzie collected publicly available utility information and documented the availability and sizes of the public water, sewer, and storm systems. The utility systems were then evaluated and scored for their ability to serve industrial development at the Phase 1 sites (Table 3). The utility evaluations were then used as part of the tiering criteria described later in this report.

Utility System Research

Group Mackenzie reviewed publicly available utility information from the service providers represented in the Phase 1 sites. The utility information included GIS data, master plans, as-built record drawings, and information received from service provider staff. In general, the publicly available information for the Phase 1 site utilities provided information on the proximity of utility services to the Phase 1 sites, utility pipe sizes and/or slopes, and for some sites the extent of known capacity deficiencies that would limit service to the site.

The table on the following page summarizes the information that Group Mackenzie reviewed from the various jurisdictions or utility service providers for the Phase 1 utility analysis.

Table 3: Phase 1 Utility Information

JURISDICTION OR UTILITY PROVIDER	UTILITY INFORMATION REVIEWED FOR PHASE 1
Clackamas County	GIS Mapping, Master Plan Documents
Clean Water Services	Online GIS, Master Plan Documents
City of Damascus	Staff-Provided GIS
City of Fairview	GIS Mapping, Information from Staff
City of Forest Grove	GIS Mapping, Information from Staff
City of Gresham	Online GIS, Master Plan Documents
City of Happy Valley	GIS Mapping
City of Hillsboro	GIS Mapping, Information from Staff, Master Plan Documents
City of Portland	Online GIS, As-Built Drawings
City of Sherwood	Online GIS, Master Plan Documents
City of Troutdale	Online GIS
City of Tualatin	GIS Mapping, Master Plan Documents
Water Environmental Services	GIS Mapping, Master Plan Documents
City of Wilsonville	GIS Mapping, Information from Staff, Master Plan Documents

Source: Group Mackenzie

Utility System Evaluation

Group Mackenzie developed a scoring system to evaluate the existing capacity of the utility systems to provide adequate industrial service to the Phase 1 sites (Table 4). This scoring system assigns a score of A, B, or C to the utility system. The scores primarily reflect the proximity of utilities to the Phase 1 sites, but they also account for utility sizes, service capacity, and complexity of expected necessary improvements.

In general the A, B, and C scores mimic the tier system used to rate the Phase 1 sites. Sites with a utility score of ‘A’ can be expected to have industrial-level utility service currently at the site or available within 6 months. Utilities scored as ‘B’ may have capacity issues or services that do not extend to the site but can be upgraded within 6 to 30 months. A utility score of ‘C’ is applied to utility systems that would require substantial service extensions, capacity upgrades, or other improvements in order to serve industrial uses at the site. The following table summarizes the utility scoring system used in this study.

Table 4: Utility Evaluation Scoring Criteria

Utility System	Score	Utility Evaluation Scoring Criteria
Sewer	A	≥ 8" main located adjacent to or stubbed to site or within ~200 ft of site. No downstream pipe/treatment capacity issues.
	B	≥ 6-8" main located within ~ 1000 ft, with no downstream deficiencies. Possible pump station needed.
	C	No nearby pipe and/or significant lift station and force main needed. Downstream deficiencies may be present.
Water	A	≥ 12" main adjacent or within ~200 ft, preferred loop system existing. No low-pressure issues.
	B	≥ 8" adjacent, or ≥ 12" main within ~ 1000 ft. No pump station or pressure/treatment deficiencies.
	C	No nearby pipe and/or system deficiencies present.
Storm	A	≥ 12" public main adjacent or within ~200 ft, or ability to discharge to managed surface waters. No capacity issues.
	B	≥ 12" main within ~ 500 ft; possible outfall to nearby regulated surface channel or wetland.
	C	No adjacent public storm or no available discharge point to surface water.

Source: Group Mackenzie

3. *Transportation*

Transportation infrastructure was evaluated at a preliminary level to determine the immediate ability to develop sites in the Phase 1 inventory. This analysis was based primarily on the quality of the surrounding transportation system and the ability of the subject property to access that system.

Specifically, the evaluation was performed by assessing the surrounding transportation system quality which was defined by two metrics:

1. Local Access: Defined as access to the immediate (proximate) transportation system.

Factors to consider:

- a) Direct roadway connection to the transportation system
- b) Extent of frontage and off-site improvements necessary to connect to the proximate transportation system

Value assigned to local access:

Good: Property has direct connection and no off-site improvements are necessary.

Poor: Property does not have a direct connection and/or significant improvements are necessary to gain local access.

- 2. Transportation System Mobility:** Defined as the mobility on the existing freight transportation system. This includes mobility on the adjacent higher-order roadways and intersections and not just the immediate roadway system. This does not include mobility on the mainline interstate highways as it is assumed all motor vehicle freight generally has to traverse these roadways and is not critical to individual property valuation.

Values assigned to transportation system mobility:

- Good:* Mobility of adjacent system has a PM peak hour volume-to-capacity ratio (v/c) < 0.99 (an approximate Level of Service (LOS) F or better).
- Poor:* Mobility of adjacent system has a PM peak hour v/c ratio > 0.99 (an approximate LOS F or worse).

For the Phase 1 analysis, all sites were ranked based on the above-identified criteria, as follows:

- A:** Local Access and Transportation System Mobility are *Good*
- B:** Local Access is *Good* and Transportation System Mobility is *Poor*
- OR –
- C:** Local Access is *Poor* and Transportation System Mobility is *Good*
- C:** Local Access and Transportation System Mobility are *Poor*

4. Wetlands

The Oregon Department of State Lands provided preliminary wetland information for Phase 1. The first source used was the agency's Land Administration System database to determine if there were any wetland determinations or delineations on file with the agency for each site. Where such information did exist, it was used as the foundation for identifying the area of wetland constraint.

For sites with no previous wetland delineation history, the following data layers were used to identify area of potential wetland constraint:

- National Wetlands Inventory, US Department of the Interior, 1988
- Local Wetlands Inventory (for those communities with adopted inventories)
- Metro Regional Land Information System, wetlands data layer (February 2011)
- Salmon Resource and Sensitive Area Mapping program, Oregon Department. of Transportation, 2004
- Soil Survey Geographic Database (US Natural Resources Conservation Service, 2009) to identify of potential hydric (wetland) soil areas
- National Hydrography Dataset, US Geological Survey

For sites with on-site wetlands or potential wetlands the net developable acreage assumed wetland mitigation would occur in order to increase the developable acreage of the site.

5. Brownfields

Metro, the City of Portland, and the City of Gresham provided GIS shapefiles containing information regarding potential brownfield sites in the region. Metro's data provided information on Underground Storage Tanks (USTs) and Environmental Cleanup Site Information (ECSI) throughout the region. The City of Portland's data included potential brownfield sites within the City limits while the City of Gresham's data included ECSI sites within the City limits. This data was examined to determine which sites in the inventory were existing or potential brownfields. The inventoried sites were given a rank of A, B, or C based on the severity of the contamination. This was an important tiering criteria as brownfields have varying levels of contamination and timeframes for clean up. Table 5 provides more information on tiering these brownfield sites.

6. *Market Readiness, Availability, and Site Aggregation*

This analysis assessed the market availability of each site and determined whether the site was currently for sale or lease, and if not, whether the owner was willing to transact. Information on owner type (private, investor, public, or user) was also collected. Two of the main tiering criteria used in this study were whether a site was currently for sale or lease, and if not, whether the owner was willing to transact. Lack of availability to the market did not remove the site from the inventory; however, the site moved it to a lower tier.

Market availability information was gathered from various sources including the PMT, meetings, conversations with real estate brokers and City economic development staff, and consultant knowledge.

Site aggregation was also analyzed for all Phase 1 sites. None of the Tier 1 sites are in multiple ownerships, as that was an imperative tiering criterion chosen by the PMT to identify Tier 1 sites. Tier 1 sites must be currently for sale or lease *or* the owner must be willing to transact. Tier 2 sites must be currently for sale or lease *or* the owner must be willing to transact. Tier 3 sites may not currently be for sale or lease and/or the owner may not be willing to transact. In many cases, the site is not currently for sale or lease but the owner is willing to transact. There are also many sites in which the owner is not willing to transact. The PMT has no way to estimate when and if the owner would be willing to transact. Perhaps if the site exchanges ownership, the new owner may immediately list the site for sale or lease, potentially bringing that site up to Tier 2 status. In other situations, a Tier 3 site may be a Tier 3 sites for decades, until the owner becomes willing to transact.

7. *Jurisdictional Review Process*

A critical aspect of this study was to provide local jurisdictions an opportunity to review the work to gain their local input on the potential sites in the inventory. The jurisdictions first reviewed the potential inventory in the second month of the study (July 2011) after the initial vacant land inventory. Jurisdictions were given the opportunity to include any additional sites that they knew were available or if any land owners were willing to aggregate or transact together. In August 2011, jurisdictions were given another opportunity to review an updated version of the inventory. As a part of this review, jurisdictions were asked to provide GIS data that was more recent or more accurate than the Metro RLIS data that was initially used in the preliminary gross to net analysis and another gross to net developable acreage analysis was run utilizing this more accurate data, when available. Jurisdictions were also asked to provide information on current infrastructure surrounding the sites, any deficiencies of supply or treatment systems, and a city contact that could provide more specific answers regarding necessary infrastructure upgrades.

Once the inventory of sites were finalized and after the transportation and infrastructure analysis was completed along with the market availability criteria in the third month of the study (September 2011), the jurisdictions were given another chance to review the inventory and provide their feedback on the scoring based on the criteria. On September 29, 2011 all jurisdictions were invited to attend a meeting at Group Mackenzie offices to review each site individually to ensure the consultant and PMT did not leave out vital pieces of information regarding the Phase 1 sites. Throughout this process, the consultant was in regular contact with appropriate jurisdiction staff and made changes to the inventory accordingly.

8. *Tiering Criteria and the Process to Score the Sites*

The tiering system utilized in this study was based on development readiness. Tier 1 sites are defined as “development ready” within 180 days of submittal of a development application (i.e., projects can receive all necessary permits, sites can be served with infrastructure, and zoned and annexed into the city within this timeframe).

This timeframe is an industry standard and is the same recruitment/development timeframe used by the State’s well established Industrial Site Certification Process. The seven to thirty month time-frame was for sites that while less competitive for expansions and recruitments, would still be of some interest to more patient users/developers. It was agreed upon by the Project Management Team that the Tier 3 30-month or greater window represents the least competitive sites from an expansion, recruitment, or a speculative development perspective.

These tiers are defined as follows:

- Tier 1** Sites have over 25 net developable acres and are development ready or can be development ready within 180 days (6 months) and require minimal to no additional costs or time to deliver a site. It is anticipated that no or minimal infrastructure or remediation is necessary and that due diligence and entitlements could be provided and/or obtained within this time period. The site does not have a use restriction and is currently on the market for sale or lease or the ownership is willing to transact. Sites in this tier would generally qualify for Business Oregon’s Industrial Site Certification program.
- Tier 2** Sites require additional time, between 7-30 months and costs to deliver a development ready site. These sites may have a use restriction, for example marine or aviation only that limits, but does not eliminate, their market opportunity. They may have deficiency issues with regard to infrastructure or may require brownfield remediation, annexation, and additional entitlements that are assumed to take beyond six months time. These sites are currently on the market for sale or lease or the ownership is willing to transact. Should the site be in multiple ownerships, an agreement to aggregate must be in place within 30 months.
- Tier 3** Sites require the most time, over 30 months, and costs to deliver a development ready site. In addition to the criterion for Tier 2 these sites may or may not be currently for sale or lease or the owner may or may not be willing to transact or information was not available at the time this report was published.

Table 5 displays the criteria that were used to Tier each of the sites in the inventory.

Table 5: Phase 1 Tiering Criteria

	25 net developable acres	Use Restriction	Brownfield Remediation	Annexation Required	Sewer, Water, & Storm ⁸	System Mobility ⁹	Currently for Sale or Lease		Willingness to Transact
Tier 1	Within 6 months	No	No or Within 6 months (Score of A)	No	A or B	A or B	Yes	O R	Yes
Tier 2	Within 7-30 months	Yes or No	Within 7-30 Months (Score of B)	Yes	A, B, or C	A, B, or C	Yes	O R	Yes or Unknown
Tier 3	>30 months	Yes or No	>30 months (Score of C)	Yes	A, B, or C	A, B, or C	Yes or No	O R	Yes or No or Unknown

Source: Group Mackenzie

⁸ For an explanation of the scoring, refer to section 2, Infrastructure.

⁹ For an explanation of the scoring, refer to section 3, Transportation.