



DATE: November 20, 2024
TO: City of Wilsonville
FROM: ECONorthwest: Nicole Underwood, Bob Parker, and Barrett Lewis
SUBJECT: WILR Phase 1: BLI and Site Suitability Analysis - DRAFT

The cities of Tualatin and Wilsonville adopted the Basalt Creek Concept Plan (BCCP) in 2018 after a lengthy joint planning process. Now, in 2024-25, the City of Wilsonville is working to advance the Basalt Creek Planning Area (BCPA) beyond the concept plan to a development-ready status by designating zoning and refining infrastructure plans. However, since adoption of the BCCP, economic conditions at national, state, regional, and local levels have shifted significantly, and must now be considered.

To address these evolving conditions, the City hired ECONorthwest to conduct a market assessment and industrial lands study focused on Wilsonville's portion of the BCPA. The study began with an Economic Inventory, which reviewed current market trends and industries suitable for the area.

This memorandum addresses Task 3 in the Scope of Work: updating the **Buildable Lands Inventory (BLI)** for the BCPA and conducting a **Site Suitability Analysis** for key opportunity sites. The updated BLI reflects recent land developments, adjusted constraints, and revised capacity estimates.

The Site Suitability Analysis examines three selected "opportunity sites" within the BCPA, assessing their potential to support the target industries identified in the Economic Inventory. This analysis considers site attributes including size, location, access, topography, constraints, and surrounding land uses. It also considers infrastructure (transportation, water, sewer, stormwater) based on available data, with the understanding that infrastructure planning may evolve as work progresses.



Land Supply

This industrial Buildable Lands Inventory (BLI) updates the 2014 BLI from the original concept plan, providing a revised assessment of the buildable land *supply* available within Wilsonville's portion of the BCPA for employment-related growth and development. The amount of land needed to accommodate anticipated growth, often referred to as *demand* for land, depends on the type of employment-related development and other factors.

This BLI update serves two purposes: 1) to provide a revised assessment for developable acres in the BCPA, and 2) to identify lands that have existing economic uses but low improvement values and/or low-density employment. These uses are inconsistent with the development vision expressed in the BCCP and are sites that may have redevelopment potential.

The BCPA encompasses a total of 453 acres across 85 tax lots. Of this:

- **175 acres** are currently in active use and are considered developed.
- **127 acres** are constrained by physical or environmental factors.
- **150 acres** are considered buildable and available for development.

This section outlines the methodology used to develop the BLI and presents the results for Wilsonville's portion of the BCPA. ECONorthwest analyzed GIS data from the City of Wilsonville, Metro, and Washington County, with City staff reviewing the findings for accuracy and completeness.

Methodology

The buildable lands inventory followed a structured process to assess land status:

1. **Generate UGB “land base”:** ECONorthwest established a baseline of tax lots within Wilsonville’s portion of the BCPA designated for industrial and employment uses.
2. **Classify lands by development status:** The project team categorized parcels as vacant, partially vacant, or developed.
3. **Identify constraints:** ECONorthwest applied physical and regulatory constraints, such as wetlands and natural resource protections, to identify unbuildable portions.
4. **Verify inventory results:** City staff reviewed classifications and aerial imagery to confirm accuracy.
5. **Tabulate and map results:** The team compiled findings into tables and maps to provide a clear overview of buildable lands.

The following section summarizes the results of the industrial BLI for the BCPA, presented in tabular and map formats.



Land Base

The land base for the Buildable Lands Inventory (BLI) includes all tax lots within Wilsonville’s portion of the BCPA. Table 1 provides a breakdown of the land base by Wilsonville Comprehensive Plan designation within the BCPA.

Table 1. Employment Land Base by Wilsonville Comprehensive Plan Designation, BCPA, 2024

Plan Designation	Number of Tax Lots	Percent	Total Tax Lot Acreage	Percent (Total Acreage)
Industrial	63	74%	237	52%
Undesignated	22	26%	215	48%
Total	85	100%	453	100%

Source: EConorthwest analysis, City of Wilsonville, Clackamas County, Washington County, Metro

Development Status Classification

Table 2 displays the total acres of tax lots, categorized based on whether land is buildable. EConorthwest applied a rule-based classification of vacant, partially vacant, or developed to determine the initial development status and verified the results through reviews by City staff. These reviews incorporated local knowledge and analyses of aerial maps.

Table 2. Employment Acres by Classification and Wilsonville Comprehensive Plan Designation, BCPA, 2024

Plan Designation	Total Acres	Developed Acres	Constrained Acres	Buildable Acres
Industrial	237	63	48	127
Undesignated	215	113	79	24
Total	453	175	127	150

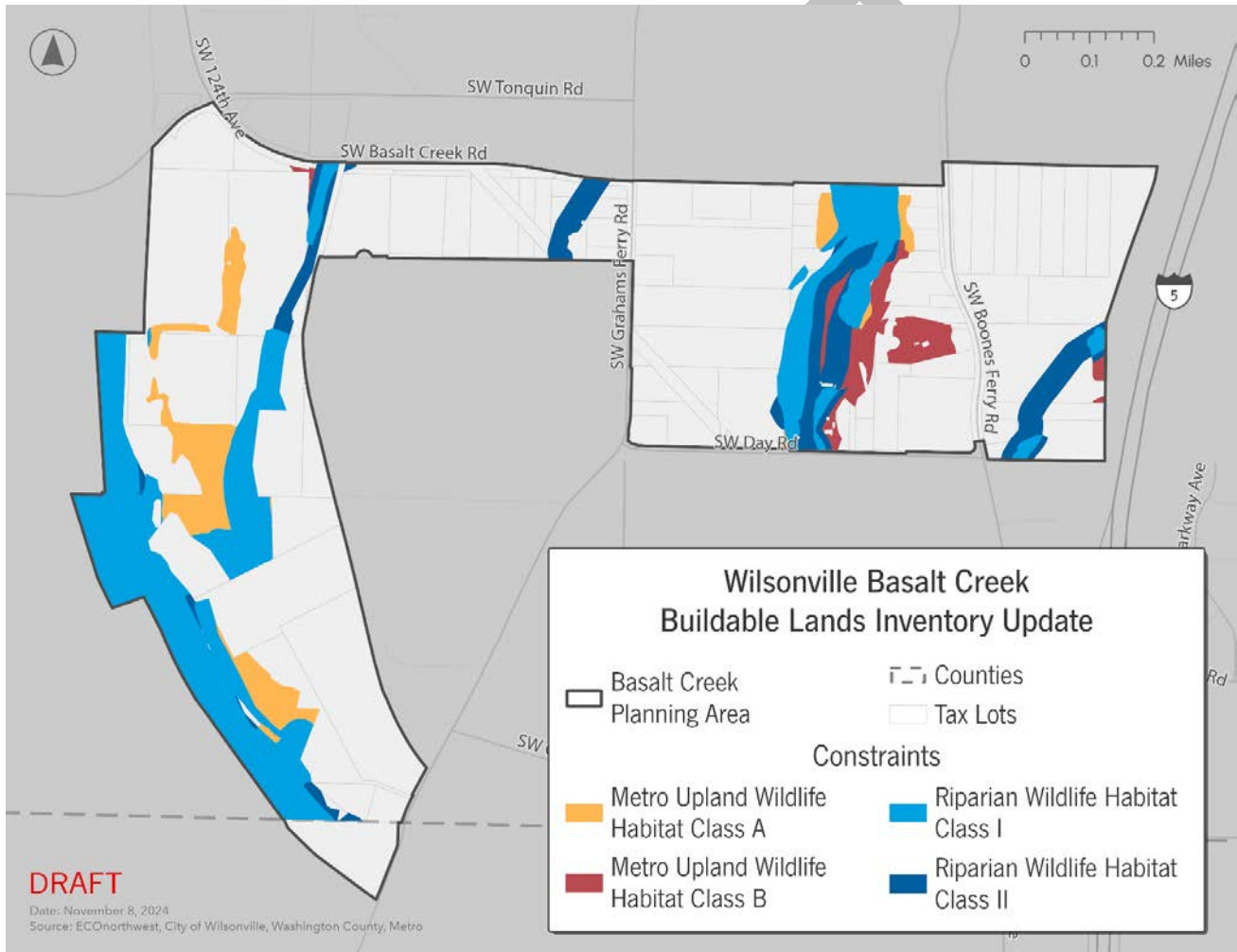
Source: EConorthwest analysis, City of Wilsonville, Washington County, Metro



Development Constraints

In coordination with City staff, EONorthwest identified physical constraints based on Washington County’s Significant Natural Resources (SNR), as amended by Washington County Ordinances No. 901 and No. 902.¹ The SNR includes Metro Upland Wildlife Habitat Classes A and B, as well as Riparian Wildlife Habitat Classes I and II. These constraints are shown in Figure 1.

Figure 1. Development Constraints, BCPA, 2024



Source: EONorthwest Analysis, City of Wilsonville, Washington County, Metro

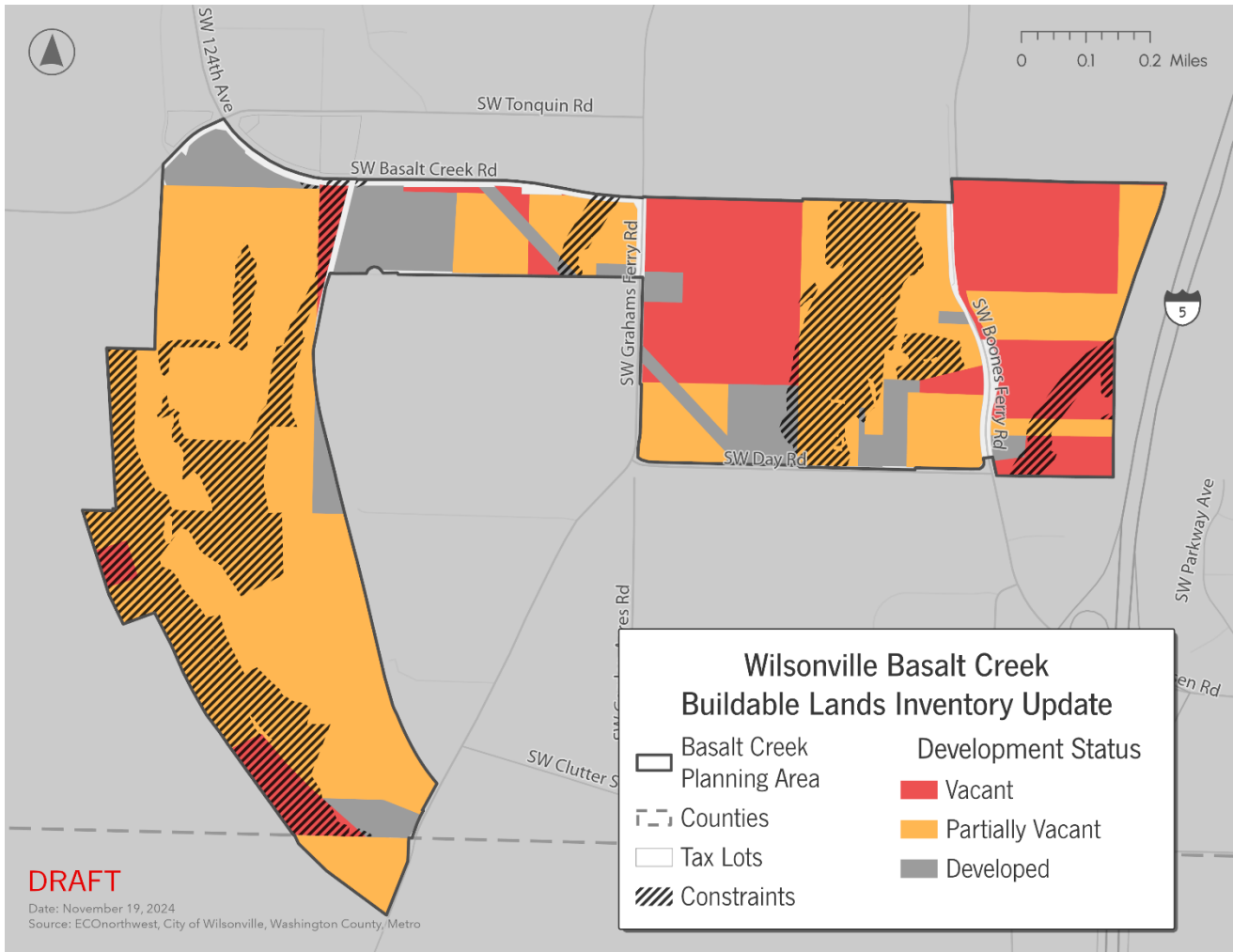
Note: EONorthwest is awaiting the required data to update the constraints of the Clackamas County parcel. This update will be included in a future draft.

¹ <https://www.washingtoncountyor.gov/lut/planning/documents/ordinance-no-901a/download?inline>



Figure 2 shows development status with constraints applied, resulting in buildable acres. Land classified as vacant or partially vacant but affected by these constraints is deemed unavailable for development and has been excluded from the inventory of buildable land.

Figure 2. Development Status with Constraints, BCPA, 2024



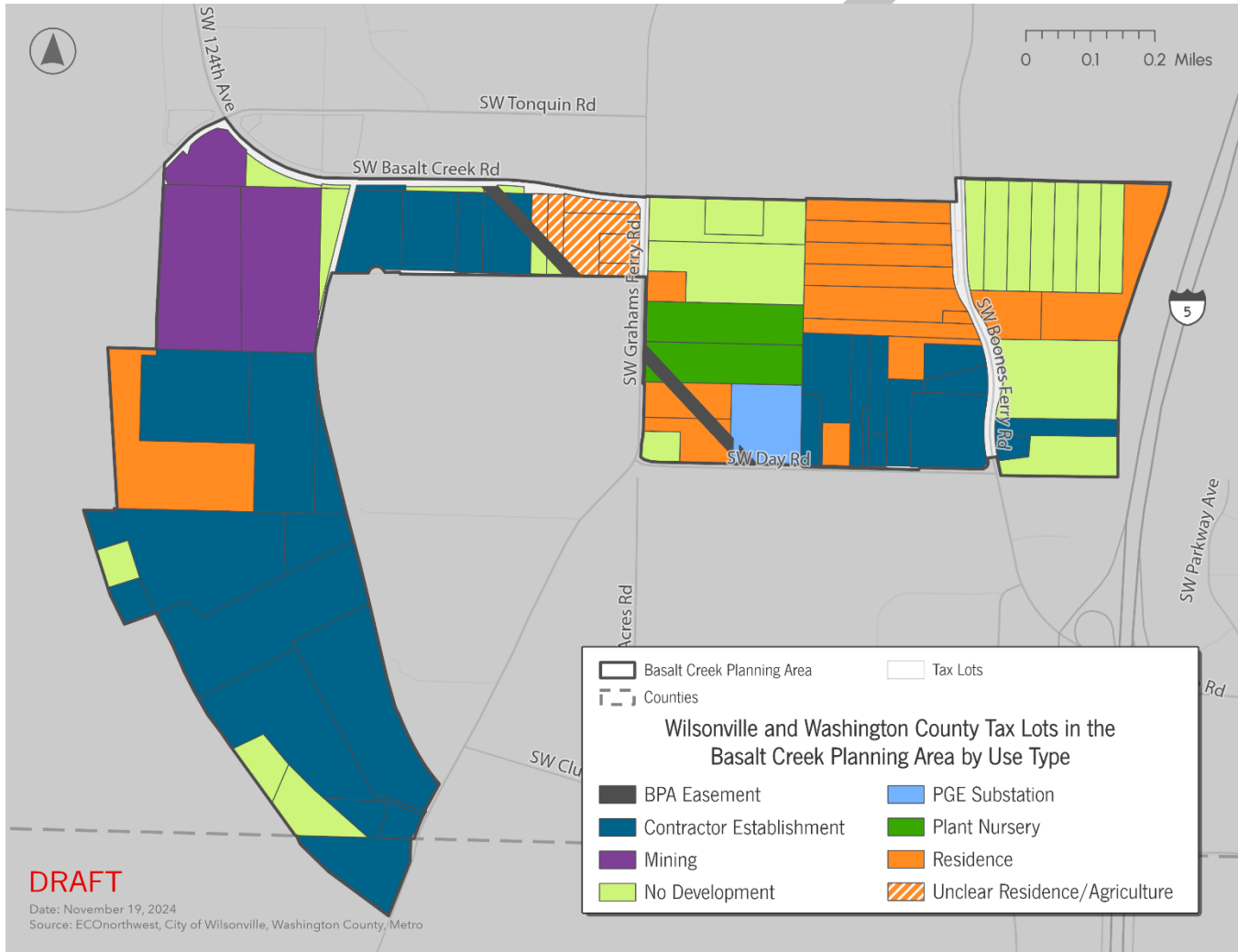
Source: EConorthwest Analysis, City of Wilsonville, Washington County, Metro

Note: EConorthwest is awaiting the required data to update the constraints of the Clackamas County parcel. This update will be included in a future draft.



Figure 3 identifies land use categories for each site. EONorthwest collaborated with City staff to identify these categories through a detailed review process that combined local knowledge with aerial map analysis. Unlike basic classifications of vacant or partially vacant land, this map provides deeper insights into current land uses, offering valuable context for evaluating redevelopment potential and guiding the feasibility analysis (the results of which will be shared in a separate memorandum).

Figure 3. Land Use Categories with Constraints, BCPA, 2024



Source: EONorthwest Analysis, City of Wilsonville, Washington County, Metro



Vacant Buildable Land

The next step in the buildable lands inventory involved removing portions of vacant tax lots deemed unsuitable for development. Unsuitable areas fall into two categories:

1. Developed portions of partially vacant tax lots.
2. Areas affected by physical constraints (i.e. areas within Metro Upland Wildlife Habitat Classes A and B and Riparian Wildlife Habitat Classes I and II)

Table 7 presents the buildable acres—tax lot areas remaining after deducting these constraints—for both vacant and partially vacant land, categorized by Wilsonville’s Comprehensive Plan designation. The BCPA has 150 total buildable acres available for development.

Table 3. Buildable Acres in Vacant and Partially Vacant Tax Lots by Wilsonville Plan Designations, BCPA, 2024

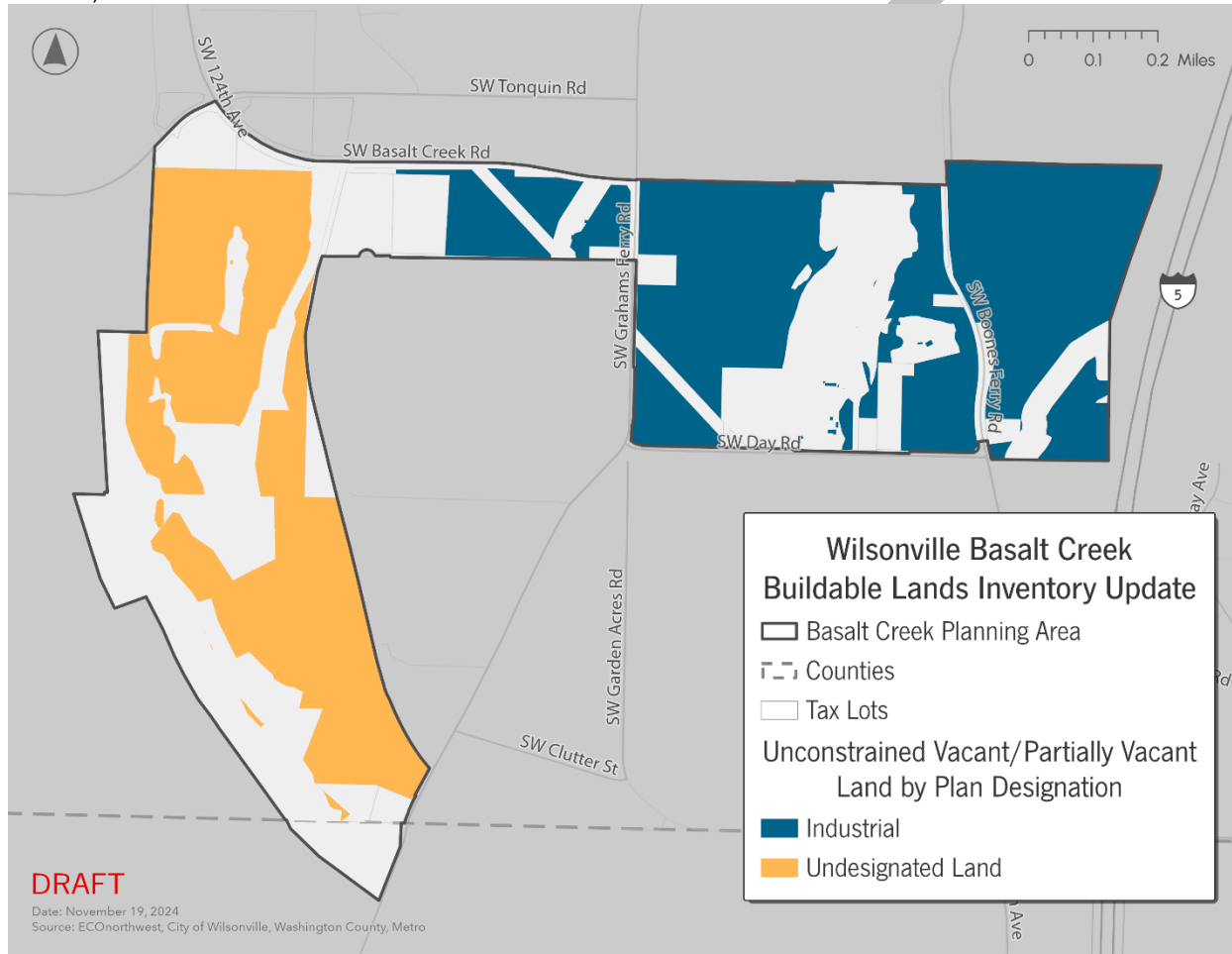
Plan Designation	Total Buildable Acres	Buildable Acres on Vacant Lots	Buildable Acres on Partially Vacant Lots
Industrial	127	87	40
Undesignated	24	0.4	23
Total	150	87	63

Source: ECONorthwest Analysis, City of Wilsonville, Washington County, Metro



Figure 4 shows the buildable vacant and partially vacant land within the BCPA, categorized by Wilsonville Comprehensive Plan designation. It is important to note that tax lots shown as partially vacant in the map do not distinguish the part of the tax lot that is unavailable for development (or has redevelopment potential). However, the buildable lands inventory database accounts for these distinctions: the developed portions (unavailable for future development) are excluded, while the vacant portions are detailed in Table 4.

Figure 4. Buildable Employment Land by Wilsonville Comprehensive Plan Designation, BCPA, 2024



Source: EConorthwest Analysis, City of Wilsonville, Washington County, Metro

Table 4 presents the size of buildable lots categorized by Wilsonville Comprehensive Plan designation across the BCPA. The planning area includes:

- ◆ Eight lots smaller than 0.5 acres, totaling 2 acres.
- ◆ Twenty-two lots between 0.5 and 2 acres, totaling 22 acres.
- ◆ Eighteen lots between 2 and 5 acres, totaling 57 acres.
- ◆ Six lots between 5 and 10 acres, totaling 46 acres.
- ◆ Two lots between 10 and 25 acres, totaling 23 acres.

Table 4. Buildable Acres and Tax Lots by Buildable Site Size by Wilsonville Comprehensive Plan Designation, BCPA, 2024

Plan Designation	Buildable Sites Size					
	0 - 0.5 Acres	0.5 - 1 Acres	1 - 2 Acres	2 - 5 Acres	5 - 10 Acres	10 - 25 Acres
Industrial	1	7	10	51	35	23
Undesignated	1	1	4	6	12	-
Acreage Total	2	8	14	57	46	23
Industrial	5	10	7	16	4	2
Undesignated	3	2	3	2	2	-
Tax Lot Total	8	12	10	18	6	2

Source: ECOnorthwest Analysis, City of Wilsonville, Washington County, Metro



Site Suitability Analysis

The BCPA is well positioned to capture industrial growth in the South Metro region. It benefits from its strategic location with access to I-5, a robust employment base, and connections to other expanding industrial hubs in Sherwood and Tualatin. Over the summer, ECONorthwest conducted an Economic Inventory to assess market conditions and identify industries most likely to establish a presence in Basalt Creek focusing on industrial and office uses in alignment with the BCCP vision.² The analysis highlighted strong national and regional demand for industrial space and identified key sectors with potential interest in the area, including the semiconductor supply chain, cleantech, advanced manufacturing, distribution and logistics, and data centers.

Although the BCCP originally envisioned a blend of industrial and office development, current market trends suggest a shift towards a greater emphasis on industrial and tech-oriented uses. Office developments, while still anticipated, are expected to occupy a smaller footprint than initially planned.

To determine site specific competitiveness for these industries, ECONorthwest evaluated three opportunity sites using the Mackenzie Infrastructure Finance Authority (IFA) Industrial Development Competitiveness Matrix as a foundation. Recognizing that industry requirements have evolved since the matrix's creation in 2015, the analysis incorporated updated reports and stakeholder feedback to align with current market demands. This Site Suitability Analysis assesses site characteristics such as size, location, and constraints to evaluate their ability to host target industries. While the analysis considered buildable land availability, its primary focus was on site potential, assuming redevelopment occurs.

WHICH SECTORS MAY BE ATTRACTED TO BASALT CREEK?

Below are the potential sectors that may be particularly attracted to Basalt Creek as identified in the Economic Inventory report.

- » **Semiconductor Sector Supply Chain:** Companies providing materials, equipment, and services to chip manufacturers.
- » **Cleantech, including Battery Technology:** Businesses involved in renewable energy technology, energy efficiency solutions and sustainable manufacturing processes.
- » **Advanced Manufacturing:** Companies using technology such as robotics, 3D printing, and computerized systems to manufacture specialized products or components.
- » **Distribution and Logistics:** Storage, transportation and delivery of goods.
- » **Data Centers:** Facilities used to house computer systems and associated components.

² When evaluating the office market, medical office showed stronger growth than traditional office. However, ECONorthwest did not further evaluate its potential as it was not a use envisioned in the BCCP.



Feasibility and redevelopment likelihood of contractor establishments is addressed in a separate task.

Opportunity Sites for Analysis

ECONorthwest evaluated the following sites for their development potential (Figure 5):

- ◆ **SW Greenhill Site:** Selected for its consolidated land ownership and strong potential for near-term development, given the absence of active use.
- ◆ **Craft Industrial Area:** As a transitional area, the City seeks to assess this site's characteristics in detail to determine the most appropriate land uses. This will inform zoning designations.
- ◆ **West Railroad Site:** West Railroad lacked a defined concept in the original BCCP. To explore its potential, ECONorthwest analyzed a portion of West Railroad, focusing on its development suitability. This will inform whether a zoning designation similar to the rest of the Basalt Creek area would be appropriate. The area also faces physical and service constraints, and the analysis evaluates whether these challenges might limit future development opportunities.

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Figure 5. Opportunity Sites



Source: EConorthwest Analysis, City of Wilsonville, Washington County, Metro

Note: EConorthwest is awaiting the required data to update the constraints of the Clackamas County parcel. This update will be included in a future draft.

Table 5 summarizes the size of unconstrained lots for the opportunity sites. Note that "unconstrained acres" here includes developed areas. In general, larger sites are more appealing to industrial users, who often seek parcels of 5 or more acres. Smaller sites, however, may require site aggregation to meet these needs. Notably, sites in SW Greenhill and West Railroad, which exceed 5 acres, could be especially attractive to developers. While all opportunity sites may require some degree of site aggregation, the Craft Industrial area faces the greatest challenge due to its relatively small lot sizes and fragmented land ownership.



Table 5. Unconstrained Acres and Tax Lots by Site Size for Opportunity Sites, BCPA, 2024

Site Suitability Area	Unconstrained Sites Size					
	0 - 0.5 Acres	0.5 - 1 Acres	1 - 2 Acres	2 - 5 Acres	5 - 10 Acres	10 - 25 Acres
Craft Industrial	-	1	5	8	-	-
SW Greenhill	-	-	-	31	-	21
West Railroad	0.3	-	2	10	19	60
Acres Total	0.3	1	7	49	19	81
Craft Industrial	-	1	3	3	-	-
SW Greenhill	-	-	-	8	-	2
West Railroad	3	-	1	4	3	4
Tax Lot Total	3	1	4	15	3	6

Source: EConorthwest Analysis, City of Wilsonville, Washington County, Metro

Site Competitiveness Factors

The IFA Industrial Development Competitiveness Matrix includes the following factors for evaluating the competitiveness of different industries:

- ◆ Site Size
- ◆ Competitive Slope (physical slope of a parcel, which can impact its suitability for development)
- ◆ Access to Transportation and Trip Generation (Highway, Rail, and Airport Proximity)
- ◆ Access to Utility Infrastructure (Water, Sewer, Electricity, Telecommunications)
- ◆ Special Considerations

The industries evaluated in the IFA Industrial Development Competitiveness Matrix include the following, which align with the BCCP and the Economic Inventory findings, and are the focus of this analysis (the full matrix can be found in Appendix A):

- ◆ **Production Manufacturing:**
 - High-Tech/Cleantech Manufacturing
- ◆ **Value-Added Manufacturing and Assembly:**
 - Food Processing
 - Advanced Manufacturing and Assembly
- ◆ **Light/Flex Industrial:**



- General Manufacturing
- Industrial Business Parks and R&D Campuses
- Business Services
- ◆ **Warehousing and Distribution**
 - Regional Warehouse/Distribution
 - Local Warehouse/Distribution
- ◆ **Specialized Uses:**
 - Data Centers

Industry-Specific Considerations

Recent growth in the semiconductor and cleantech sectors has prompted additional research to understand the evolving needs of these industries. To support this, the Oregon Legislature established the Oregon Semiconductor Task Force to identify industry needs and opportunities. Similarly, Business Oregon supported the creation of the Oregon Cleantech Competitiveness Assessment Report to evaluate the needs and prospects for cleantech industries. Key findings related to site-specific requirements from these initiatives are outlined below.

SEMICONDUCTOR SECTOR

The semiconductor industry offers Oregon a prime opportunity to expand advanced manufacturing, grow its traded sector, and create high-quality jobs. The \$52 billion CHIPS Act, passed in July 2022, accelerates efforts to boost domestic semiconductor production by allocating \$40 billion for manufacturing and \$10 billion for research over five years.

The Metro Region hosts a robust semiconductor cluster centered in Hillsboro. There has also been some semiconductor activity south of Hillsboro, including LAM Research in Sherwood and Tualatin, bolstering the supply chain presence in the South Metro. This established network positions the region to attract additional semiconductor-related investments.

The Semiconductor Task Force's Industrial Lands Subcommittee identified key site characteristics most important for the semiconductor industry:

- ◆ **Workforce Availability and Talent Proximity.** Access to skilled workers—engineers, technicians, and operators—is essential. Semiconductor clusters thrive where workers can easily transition between companies, creating a dynamic employment ecosystem. Workforce access is critical for both fabrication plants and supply chain operations.
- ◆ **Parcel Size and Usage.** Parcel size varies by operational needs. Fabrication plants require *50–100 acres* to accommodate cleanrooms and infrastructure, with large-



scale R&D and production facilities needing **500+ acres**. Supply chain operations, such as equipment and material suppliers, generally need smaller parcels of **15–35 acres**.

- ◆ **Infrastructure Readiness.** Reliable access to *transportation, water, electricity, and wastewater systems* is crucial. Semiconductor companies prioritize sites with infrastructure ready to support development within **6 months to 3 years**.
- ◆ **Clustering with R&D Partners and Suppliers.** Collaboration with suppliers and R&D partners is vital. Fabrication plants benefit from proximity to suppliers for quick equipment maintenance and research. Supply chain operations also thrive in clusters, connecting with customers and transport hubs.
- ◆ **Environmental and Regulatory Considerations:** Predictable permitting processes are essential to avoid delays. While environmental regulations remain important, fast-tracked approvals are necessary to match the industry's pace.

SITE COMPETITIVENESS FOR THE CLEANTECH SECTOR

Oregon is well-positioned to capitalize on the growth of cleantech industries, driven by federal initiatives like the Inflation Reduction Act and an increasing focus on sustainability. Cleantech encompasses a range of technologies, including renewable energy, energy-efficient materials, water technologies, and recycling systems. While the IFA Industrial Development Competitiveness Matrix provides general site characteristics for cleantech, the Oregon Cleantech Competitiveness Assessment Report—developed for Business Oregon—offers more detailed site selection criteria specific to established and emerging cleantech industries within the state. Key site characteristics for these subsectors are summarized below (a complete matrix is available in Appendix B). Scalability is essential for many users, as industries often begin on smaller sites but require the flexibility to expand as they grow.

- ◆ **Battery Storage:** These systems store renewable energy for later use, enhancing grid stability and reliability. Technologies range from lithium-ion to flow batteries, used in applications from small urban micro-grids (0-5 acres) to large grid-scale facilities (25+ acres). Electrical system proximity and access for power generation facilities may vary, depending on the scale and intended use. Micro-grid systems may only need connection to the local electrical grid, while large-scale grid storage may require connection to regional transmission lines or substations. Zoning flexibility for energy uses is critical, while water needs and transportation access are generally less significant.
- ◆ **Mass Timber:** Engineered wood products like cross-laminated timber (CLT) and glued laminated timber (GLT) serve as sustainable alternatives to steel and concrete. Production facilities need medium to large sites (5-25+ acres), reliable transportation (particularly to arterial roads and railways) for raw materials, and substantial power supply.



- ◆ **Ag-Tech:** This sector integrates advanced technologies like AI, Internet of Things (IoT), agrivoltaics, and drones to optimize agriculture. Ag-tech operations, in this sense are generally assumed to focus on software and small-scale equipment products, generally collaborating with large existing farms for R&D. These businesses typically require small sites (0-5 acres) with low transportation, water, and power demands.
- ◆ **Circular Economy:** This sector focuses on recycling and resource reuse, supporting waste-reduction and material recovery technologies. Businesses range from R&D to recycling and upcycling facilities. Typically, these operations require small to medium-sized sites (0-25 acres), though the specific site needs depend on the types of raw materials and finished products, as well as the scalability of the industry. Good transportation access—especially to arterial roads and potentially railways—is important, along with moderate water and power requirements and flexible zoning options.
- ◆ **Solar and Wind Energy Production:** This sector encompasses both energy production and manufacturing. Manufacturing facilities share site requirements with advanced manufacturing industries, while energy production facilities vary significantly in scale. These range from small rooftop installations to large-scale farms, which require proximity to transmission lines and substations. The electrical system needs depend on the scale and purpose of the facility—micro-grid systems may only require a connection to the local grid, while large-scale grid storage typically necessitates access to regional transmission lines or substations. Transportation access requirements also vary, but wind turbine manufacturing often requires rail access due to the size of components.
- ◆ **Water Technologies:** This sector focuses on addressing water scarcity and quality through innovations such as AI-driven leak detection, wastewater recycling, and desalination. It often involves both R&D and production facilities. These businesses typically require small to medium-sized sites (0-25 acres) with access to high-pressure water systems and significant power capacity, while having relatively low transportation needs.
- ◆ **Building Energy Technologies:** This sector focuses on innovations that improve energy efficiency, including smart HVAC systems and energy-efficient lighting to reduce building energy use. R&D and software development facilities in this space typically require small sites (0-5 acres) with moderate to high electrical needs, while having low transportation and water requirements.
- ◆ **Electric Vehicle (EV) Infrastructure Technologies:** Supporting the adoption of EVs through charging networks and technology development, this sector generally requires medium to large sites (5-25+ acres) with high electrical power demands and good access to transportation networks.



Opportunity Site Characteristics

The market analysis revealed that Basalt Creek is well-suited for various industrial uses, including light industrial, flex space, warehousing, distribution, advanced manufacturing, and support for cleantech and semiconductor sectors. These industries have specific site requirements. To assess how the three opportunity sites could accommodate different sectors, ECOnorthwest analyzed each site's characteristics and evaluated them against the competitiveness matrix and additional criteria specific to cleantech and semiconductor industries. Table 7 outlines the physical characteristics of the three sites under analysis.

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Table 6. Physical Characteristics of Opportunity Sites

SITE CHARACTERISTIC	SW GREENHILL	CRAFT INDUSTRIAL	WEST RAILROAD
Site Size and Ownership	<ul style="list-style-type: none"> ◆ 57 acres ◆ 10 tax lots ◆ 2 owners (1 owns 42 acres, 1 owns 14 acres) 	<ul style="list-style-type: none"> ◆ 32 acres ◆ 7 tax lots ◆ 7 owners (fairly even site size distribution) 	<ul style="list-style-type: none"> ◆ 165 acres ◆ 15 tax lots ◆ 8 owners (1 owns 65 acres, 4 own ~20 acres each, 3 own smaller parcels)
Slope	Slopes of 10% or greater cover about 6 acres, or 11% of the total site area.	<ul style="list-style-type: none"> ◆ Slopes of 10% or greater cover about 15 acres, or 46% of the total site area. These slopes are generally in the middle of the site, bordering Basalt Creek. 	<ul style="list-style-type: none"> ◆ Slopes of 10% or greater cover about 34 acres, or 20% of the total site area. However, some of these slopes are from activities on the sites and not physical attributes
Surrounding Uses	<ul style="list-style-type: none"> ◆ North: Planned for medium-low density residential and neighborhood commercial (Tualatin portion of BCPA) ◆ East: BCPA border and I-5 ◆ South: Undeveloped land, contractor establishment (planned High-Tech Employment District) ◆ West: Craft Industrial Opportunity Site 	<ul style="list-style-type: none"> ◆ North: Planned for (and under development) low-density residential (Tualatin portion of BCPA) ◆ East: SW Greenhill Opportunity Site (planned High-Tech Employment District) ◆ South: Contractor establishments, single residential property (planned High-Tech Employment District) ◆ West: Contractor establishments, plant nurseries, and undeveloped land (planned Light Industrial District) 	<ul style="list-style-type: none"> ◆ North: Adjacent to mining site ◆ East: Coffee Creek Correctional Facility and Coffee Creek Industrial area ◆ West: Coffee Creek provides a natural buffer ◆ South: Undeveloped land in Clackamas County
Constraints	<ul style="list-style-type: none"> ◆ 52 unconstrained acres (91% of total area) ◆ Minimal constraints running along the eastern boundary 	<ul style="list-style-type: none"> ◆ 14 unconstrained acres (42% of total area); 9 of these acres are east of the constraints that dominate the central area; the remaining 5 acres occupy the northwest corner ◆ Constraints dominate the central north-south area 	<ul style="list-style-type: none"> ◆ 90 unconstrained acres (55% of total area) ◆ Constraints run along the entire western boundary and central northern half



Table 8 outlines the existing and planned utilities on the opportunity sites. Details on water, sewer, and roads were provided by City staff based on the most current local access maps from DKS. Final infrastructure alignment and capacity are still in the planning stages. d

Table 7. Infrastructure and Utility Characteristics of Opportunity Sites

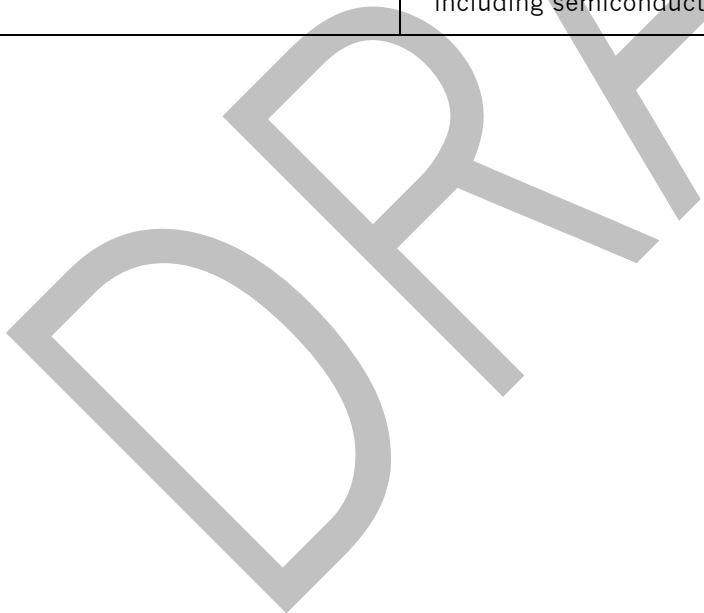
SITE CHARACTERISTIC	SW GREENHILL	CRAFT INDUSTRIAL	WEST RAILROAD
Water: Potable water delivery to BCPA requires Basalt Creek Parkway Extension, Zone C booster station, and may require SW Grahams Ferry Rd Extension. These systems will connect SW Tooze Rd to SW Day Rd – 10,200 LF 18” diameter pipe and 4,670 LF 12” diameter pipe. <i>Modeling needs to confirm these requirements.</i>	Current: No existing water lines in area. Planned: Requires water main along SW Boones Ferry Rd alignment (2,490 LF). Water lines assumed to generally follow local road layout (5,460 LF). Will connect proposed water lines to existing lines on SW Pioneer Ct and SW Day Rd. <i>Sizes to be confirmed during modeling.</i>	Current: No existing water lines in area. Planned: Assumed to utilize proposed water main along SW Boones Ferry Rd. <i>Sizes to be confirmed during modeling.</i>	Current: No existing water lines in area. Planned: Water lines assumed to follow road layout from SW Grahams Ferry to SW Tonquin Rd (6,900 LF). <i>Sizes to be confirmed during modeling.</i>
Roads	Current: Existing SW Boones Ferry Rd, SW Greenhill Rd Planned: New arterial to I-5 from SW Greenhill Rd (300 LF). New arterial from SW Day Rd to I-5 (1,060 LF). New local roads looping SW Greenhill Rd to SW Boones Ferry Rd (3,350 LF) and connecting to SW Pioneer Ct (2,110 LF).	Current: Existing SW Boones Ferry Rd. Planned: New local road looping SW Day Rd to SW Boones Ferry Rd (1,900 LF). Assumed to utilize SW Boones Ferry Rd.	Current: Existing SW Grahams Ferry Rd to south and SW Tonquin Rd to north. Planned: New local road connecting SW Grahams Ferry Rd to SW Tonquin Rd (6,900 LF) with a possible connection to SW Morgan Rd (2,570 LF).
Sewer: Wastewater collection for BCPA requires completion of Coffee Creek Interceptor Phase 2 – 2,000 LF of gravity system upsizing to 21” diameter pipe from SW Boeckman Rd along railroad to SW Ridder Rd. This also requires Coffee Creek Interceptor Railroad Crossing – 160 LF of 21” diameter pipe.	Current: No existing sewer lines in area. Planned: Gravity collection lines flow generally south and west along proposed road layout (5,460 LF). Requires new collection line along SW Day Rd (1,600 LF), and new line to travel south between SW Day Rd to connect to SW Garden Acres Rd just north of SW Ridder Rd (3,700 LF). <i>10-12” diameter collection lines are anticipated.</i>	Current: No existing sewer lines in area. Planned: Assumed to utilize proposed line along SW Boones Ferry Rd.	Current: No existing sewer lines in area. Planned: Gravity line flows from SW Clay St west, crosses railroad, and meets proposed local street alignment in West Railroad to SW Grahams Ferry Rd (6,900 LF). Lift station is required with pressure main along SW Grahams Ferry to SW Clutter St (380 LF) before returning to gravity along SW Clutter St to SW Garden Acres Rd (1,430 LF) <i>A 10” diameter pipe is anticipated for gravity lines.</i>
Natural Gas	The IFA matrix does not identify natural gas as a requirement for industries most likely to locate in the BCCP. Natural gas did not come up as a barrier for industrial development in interviews.		
Electricity	Discussions with PGE indicate that the area can accommodate industrial users with moderate power needs. However large power users such as a data center may require infrastructure upgrades. These types of upgrades can take 3+ years.		
Telecommunication	Since the BCPA is located within the Metro, telecommunication service is expected to be adequate to meet the needs of likely users. Telecommunication capacity did not come up as a barrier for industrial development in interviews.		



Location in the overall region and access to highways, rail, other like businesses, and labor force also play a role in site selection for industries. Given the proximity of these sites within a very small area we detail these overall characteristics for the BCPA rather than for each site (Table 9).

Table 8. Basalt Creek Transportation and Proximity Characteristics

SITE CHARACTERISTIC	BASALT CREEK EVALUATION
Available Trips	<ul style="list-style-type: none"> ◆ The BCCP allocated 951 trips to Wilsonville’s portion of Basalt Creek. The TRP identifies the necessary improvements to accommodate those trips. Additional development and trips would require an update to the TRP and additional capacity improvements to the planned system.
Transportation Access to Interstate or Principal Arterial	<ul style="list-style-type: none"> ◆ The entirety of Basalt Creek is within 5 miles of access to I-5 as well as I-205 and is less than 10 miles from Highway 217.
Proximity to Regional Infrastructure Rail/Port/Airport	<ul style="list-style-type: none"> ◆ Basalt Creek is ~27 miles from Portland International Airport and ~26 miles from the Port of Portland. ◆ A rail line runs through Basalt Creek, but without any spurs, the area lacks direct rail access for industries. <u>Note: The project team is still confirming the type of rail line and potential for spurs.</u>
Proximity to Labor Force	<ul style="list-style-type: none"> ◆ Access to the broader Portland Metro and Mid-Valley labor forces.
Proximity to Goods	<ul style="list-style-type: none"> ◆ Close proximity to wine region and agricultural land ◆ Close proximity to distributors, other manufacturers, and tech hubs, including semiconductor businesses



Evaluation of Compatible Uses

The suitability of potential users for each site is outlined below, based on site characteristics and industry-specific needs. *Note: While water and wastewater capacity, as well as final road alignments, are still in the planning stages, they could influence the types of industries and scale of development that locate on these sites. Generally, water and wastewater capacity is expected to be sufficient, though high-water-use industries are highlighted as needing additional consideration in the matrix. Final road alignments could also affect parcel configurations as well as building size and scale depending on their placement. These factors are acknowledged but are not currently identified as definitive constraints or benefits.*

- ◆ **The SW Greenhill** site spans 57 acres, with 91 percent (52 acres) of the land unconstrained. Minimal slopes (affecting 11 percent of the site), a high proportion of undeveloped land, and proximity to existing infrastructure make it one of the most development-ready locations in Basalt Creek. The site could be suitable for high-tech supply chain, cleantech industries, advanced manufacturing, food processing, small warehousing and distribution, and industrial business parks or R&D campuses. Its proximity to transportation networks and regional workforce access further enhances its competitiveness.
- ◆ **The Craft Industrial** site comprises seven tax lots under separate ownership, most of which are smaller than 5 acres. Substantial constraints limit the developable area to 14 acres. Its proximity to residential areas and existing housing developments makes it less attractive for high-intensity industrial activities. In its current configuration, the site is better suited for micro-industrial uses, such as live-work spaces as originally identified in the BCCP.

With site aggregation, the southeastern portion could support a small-scale industrial and/or office user requiring up to 5 acres. These uses could resemble industrial condo developments like the Commerce Circle Business Park or Riverwood Business Center, which integrate office and small-scale production spaces. While the northeastern portion may also appeal to small industrial users, its irregular shape and the presence of high-value residences make redevelopment less likely there compared to the southeastern portion.

The site's existing residences, some of which are high-value homes, are likely to extend redevelopment timelines relative to other opportunity sites. However, the feasibility of redeveloping these residential properties was not assessed as a part of this study.

- ◆ **The West Railroad** site spans 165 acres, with 55 percent (90 acres) of the land unconstrained. Its large parcel sizes and proximity to regional transportation networks make it a strong candidate for general manufacturing, food processing, and small to mid-sized warehousing or distribution uses. Moderate constraints are concentrated along the western and northern boundaries. Additionally, the lack of



confirmed direct rail access and the need for infrastructure upgrades may present challenges for industries reliant on heavy logistics or rail connections. Additionally, the site's proximity to a rail line and a mining operation could make the site less attractive to advanced manufacturing or other industries sensitive to vibration. On the other hand, the site's proximity to Coffee Creek's existing industrial development may make it attractive to business services supporting nearby industries. **Note:** The project team is continuing to assess rail access and the potential impact of the railroad and nearby mining operations on the site's attractiveness for certain industries. At this stage, these factors are identified as potential considerations. Additionally, the City is still evaluating necessary road improvements to West Railroad to better accommodate truck traffic. Further analysis of how infrastructure constraints or enhancements might influence industry suitability will be included in the next draft if additional information becomes available.

In Table 10, the compatibility of each site with various industrial uses is color-coded as follows:

- ◆ **Red:** Not competitive for the industry
- ◆ **Yellow:** Moderate potential
- ◆ **Green:** High compatibility and strong suitability

Table 9. Evaluation of Compatible Uses Based on Site Characteristics

INDUSTRIES		SW GREENHILL	CRAFT INDUSTRIAL	WEST RAILROAD
Production Manufacturing	High Tech / Cleantech Manufacturing	Mid-sized, flat site; high power or utility demands could exclude some users depending on system capacity	May be able to accommodate a small user (under 5 acres) most likely on the southeastern portion; some users may prefer larger sites with expansion potential	Vibration may be a concern from nearby rail and mining (This may or may not be a barrier – project team is still confirming); high power or utility demands could exclude some users depending on system capacity
Value-Added Manufacturing and Assembly	Food Processing	Water and sewer needs are high; high demands could exclude some users depending on system capacity	May be able to accommodate a small user (under 5 acres) most likely on the southeastern portion	Water and sewer needs are high; high demands could exclude some users depending on system capacity
	Advanced Manufacturing & Assembly	Mid-sized, flat site; lower water and sewer demand than high-tech industries	Site small and constrained; increased setbacks (if required) could be a problem; often requires onsite utility service areas	Vibration may be a concern from nearby rail and mining (This may or may not be a barrier – project team is still confirming)



INDUSTRIES		SW GREENHILL	CRAFT INDUSTRIAL	WEST RAILROAD
Light / Flex Industrial	General Manufacturing	Residential proximity may reduce appeal	Site small and constrained; residential proximity may reduce appeal	Desirable site size available; distance from sensitive uses (residential, park)
	Industrial Business Park and R&D Campus	Mid-sized, flat site; slightly small for some users	Site small and constrained	Constraints may limit large park potential
	Business / Admin Services	Mid-sized, flat site; high trip generation	May be able to accommodate a small user (under 5 acres) most likely on the southeastern portion; tolerates higher slopes; compatible near residential; high trip generation	Proximity to Coffee Creek Industrial area which hosts similar services is attractive; tolerates higher slopes; high trip generation
Warehouse & Distribution	Regional	Close to I-5; existing road infrastructure; site may be a little small for some users	Site too small and constrained; limited space for trucks	Constraints could limit large distribution centers; The City is evaluating needed improvement to better accommodate truck traffic
	Local	Close to I-5; existing road infrastructure; suitable for smaller users	Site too small and constrained; limited space for trucks	Close to I-5; suitable for smaller users; The City is evaluating needed improvement to better accommodate truck traffic
Specialized	Data Center	May be suitable but power needs could exceed available capacity requiring upgrades	Site too small and constrained	May be suitable but power needs could exceed available capacity requiring upgrades

Site Competitiveness for Semiconductor Industry

Basalt Creek lacks the large parcels required for fabrication plants but is positioned to accommodate supply chain businesses that support semiconductor manufacturing.

- ◆ **SW Greenhill:** **High Potential** – Could be competitive for the semiconductor supply chain businesses. This site is closest to development ready, which is highly competitive as semiconductor companies prioritize sites with infrastructure ready to support development within *6 months to 3 years*.
- ◆ **Craft Industrial:** **Not Competitive** – Given the small parcels on the Craft Industrial site, this site is not competitive for the semiconductor supply chain businesses.



- ◆ **West Railroad: Moderate Potential** – The longer timeline required to provide adequate infrastructure, combined with existing constraints, makes this site less attractive for the semiconductor industry.

Site Competitiveness for Cleantech

- ◆ **Craft Industrial: Moderate Potential** – Given the small parcels and extent of constraints, this site is not competitive for many cleantech businesses but may be attractive to small scale users in ag-tech and building energy tech that require sites under 5 acres.

Table 10. Cleantech Evaluation of Compatible Uses for Craft Industrial

Battery Storage	Existing businesses add appeal, but energy demands may exceed supply; site size may be too small for many users
Mass Timber	Limited by small site size, lack of direct rail access and high energy requirements
Ag-Tech	Site may be suitable for a small user
Circular Economy	Some users may prefer direct rail access; site may be too small for some users
Solar & Wind Energy	Small site; unsuitable for power generation and manufacturing
Water Tech	High demand user; water pressure adequacy and energy needs may pose challenges; site may be too small for some users
Building Energy Tech	Site may be suitable for a smaller user; energy demands could exceed supply.
EV infrastructure Tech	Limited site size, lack of rail access and high energy requirements

- ◆ **SW Greenhill and West Railroad: High Potential** – Site size and infrastructure could appeal to a variety of cleantech subsectors including battery storage, ag-tech, circular economy, water tech, and building energy tech.

Table 11. Cleantech Evaluation of Compatible Uses

Battery Storage	Existing businesses add appeal, but energy demands may exceed supply
Mass Timber	Limited by lack of direct rail access and high energy requirements
Ag-Tech	Sites meet needs well
Circular Economy	High transportation needs: some facilities may prefer direct rail access
Solar & Wind Energy	Unsuitable for power generation; possible for manufacturing but limited by rail and power needs
Water Tech	High demand user; water pressure adequacy and energy needs may pose challenges; low transportation needs
Building Energy Tech	Sites meet needs well; energy demands could exceed supply.
EV infrastructure Tech	Limited by lack of rail access and high power requirements



Conclusion

Land Supply

The BCPA offers a promising opportunity to support a diverse range of industrial and employment uses that align with Wilsonville's economic development goals. Since the previous Buildable Lands Inventory (BLI) update, the area has experienced growth in contractor establishments. The updated BLI identifies **150 acres of buildable land**, comprising **87 acres of vacant land** and **63 acres of partially vacant land**, after accounting for constraints and existing development. The supply is distributed across parcels of varying sizes, ranging from small lots under 5 acres to larger parcels exceeding 25 acres, providing a mix of options suitable for different industry needs.

Note: ECOnorthwest will include employment capacity estimates in the next version of this draft.

Site Suitability Analysis

The Site Suitability Analysis evaluates the competitiveness of three opportunity sites within the BCPA based on their ability to host key industries identified in the Economic Inventory. This evaluation focuses on physical site characteristics, such as size, location, and constraints, rather than the likelihood of redevelopment. Redevelopment feasibility is addressed in a separate deliverable.

- ◆ **SW Greenhill:** With its minimal constraints, lack of development and existing infrastructure, this site could be suited for cleantech, high-tech supply chains, advanced manufacturing industries, food processing, small warehousing and distribution, and industrial business parks or R&D campuses requiring medium-sized parcels. This validates the uses originally envisioned in the BCCP for the area.
- ◆ **Craft Industrial:** Due to significant constraints, the site is currently more suitable for micro-industrial uses, such as live-work spaces, as originally identified in the BCCP. However, with site aggregation, the eastern portion could accommodate small-scale business or administrative services and production uses, similar to industrial condo developments like Commerce Circle Business Park or Riverwood Business Center. The presence of existing residences, including some high-value homes, are likely to delay redevelopment timelines compared to other opportunity sites.
- ◆ **West Railroad:** This site has potential for development in general manufacturing, food processing, warehousing and distribution, and business services. However, significant infrastructure upgrades are required, and existing constraints may limit the scale of some types of development.



Next Steps

The findings presented in this memorandum are preliminary and will be further refined through ongoing discussions with the Planning Commission and City Council. This analysis is being conducted in parallel with an evaluation of redevelopment feasibility for contractor establishments. Ultimately, these components, along with insights from the Economic Inventory, will be synthesized into a comprehensive final report that outlines key findings and recommendations.

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Appendix A. IFA Industrial Development Competitiveness Matrix

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STATE OF OREGON - Infrastructure Finance Authority
Industrial Development Competitiveness Matrix



CRITERIA		Production Manufacturing		Value-Added Manufacturing and Assembly		Light / Flex Industrial			Warehousing & Distribution		Specialized		
		A	B	C	D	E	F	G	I	H	J	K	L
		Heavy Industrial / Manufacturing	High-Tech / Clean-Tech Manufacturing	Food Processing	Advanced Manufacturing & Assembly	General Manufacturing	Industrial Business Park and R&D Campus	Business / Admin Services	Regional Warehouse / Distribution	Local Warehouse / Distribution	UVA Manufacturing / Research	Data Center	Rural Industrial
1 GENERAL REQUIREMENTS		Use is permitted outright, located in UGB or equivalent and outside flood plain; and site (NCDA) does not contain contaminants, wetlands, protected species, or cultural resources or has mitigation plan(s) that can be implemented in 180 days or less.											
2 PHYSICAL SITE													
TOTAL SITE SIZE**	Competitive Acreage*	10 - 100+	5 - 100+	5 - 25+	5 - 25+	5 - 15+	20 - 100+	5 - 15+	20 - 100+	10 - 25+	10 - 25+	10 - 25+	5 - 25+
3 COMPETITIVE SLOPE:	Maximum Slope	0 to 5%	0 to 5%	0 to 5%	0 to 7%	0 to 5%	0 to 7%	0 to 12%	0 to 5%	0 to 5%	0 to 7%	0 to 7%	0 to 5%
TRANSPORTATION													
5 TRIP GENERATION:	Average Daily Trips per Acre	40 to 60 (ADT / acre)	40 to 60 (ADT / acre)	50 to 60 (ADT / acre)	40 to 60 (ADT / acre)	40 to 50 (ADT / acre)	60 to 150 (ADT / acre)	170 to 100 (ADT / acre)	40 to 80 (ADT / acre)	40 to 80 (ADT / acre)	40 to 80 (ADT / acre)	20 to 30 (ADT / acre)	40 to 50 (ADT / acre)
6 MILES TO INTERSTATE OR OTHER PRINCIPAL ARTERIAL:	Miles	w/ in 10	w/ in 10	w/ in 30	w/ in 15	w/ in 20	N/A	N/A	w/ in 5 (only Interstate or equivalent)	w/ in 5 (only Interstate or equivalent)	N/A	w/ in 30	N/A
7 RAILROAD ACCESS:	Dependency	Preferred	Preferred	Preferred	Not Required	Preferred	Preferred	Not Required	Preferred	Preferred	Not Required	Avoid	N/A
8 PROXIMITY TO MARINE PORT:	Dependency	Preferred	Preferred	Preferred	Not Required	Preferred	Preferred	Not Required	Preferred	Preferred	Not Required	Not Required	N/A
9 PROXIMITY TO REGIONAL COMMERCIAL AIRPORT:	Dependency	Preferred	Competitive	Preferred	Competitive	Preferred	Required	Preferred	Preferred	Preferred	Preferred	Competitive	N/A
	Distance (Miles)	w/ in 60	w/ in 60	w/ in 60	w/ in 30	w/ in 60	w/ in 30	w/ in 60	w/ in 60	w/ in 60	w/ in 30	w/ in 60	N/A
10 PROXIMITY TO INTERNATIONAL AIRPORT:	Dependency	Preferred	Competitive	Preferred	Competitive	Preferred	Competitive	Preferred	Preferred	Preferred	Competitive	Preferred	N/A
	Distance (Miles)	w/ in 300	w/ in 300	w/ in 300	w/ in 100	w/ in 300	w/ in 100	w/ in 300	w/ in 300	w/ in 300	w/ in 100	w/ in 300	N/A
UTILITIES													
11 WATER:	Min. Line Size (Inches/Distr)	8" - 12"	12" - 16"	12" - 16"	8" - 12"	6" - 10"	8" - 12"	4" - 6"	4" - 8"	4" - 6"	4" - 8"	16"	4" - 8"
	Min. Fire Line Size (Inches/Distr)	10" - 12"	12" - 18"	10" - 12"	10" - 12"	8" - 10"	8" - 12"	6" - 10"	10" - 12"	6" - 8"	6" - 10"	10" - 12"	6" (or alternate source)
	High Pressure Water Dependency	Preferred	Required	Required	Preferred	Not Required	Preferred	Not Required	Not Required	Not Required	Not Required	Required	Not Required
	Flow Gallons per Day per Acre	1600 (GPD / Acre)	5200 (GPD / Acre)	3150 (GPD / Acre)	2700 (GPD / Acre)	1850 (GPD / Acre)	2450 (GPD / Acre)	1600 (GPD / Acre)	500 (GPD / Acre)	500 (GPD / Acre)	1600 (GPD / Acre)	50-200 (Gallons per MWh) †	1200 (GPD / Acre)
12 SEWER:	Min. Service Line Size (Inches/Distr)	6" - 8"	12" - 18"	10" - 12"	10" - 12"	6" - 8"	10" - 12"	6" - 8"	4"	4"	6"	8" - 10"	4" - 6" (or on-site source)
	Flow (Gallons per Day per Acre)	1500 (GPD / Acre)	4700 (GPD / Acre)	2600 (GPD / Acre)	2500 (GPD / Acre)	1700 (GPD / Acre)	2000 (GPD / Acre)	1600 (GPD / Acre)	500 (GPD / Acre)	500 (GPD / Acre)	1300 (GPD / Acre)	1000 (GPD / Acre) †	1000 (GPD / Acre)



	Preferred Min. Service Line Size (Inches/Diameter)	4" - 6"	6"	4"	6"	4"	6"	2"	2"	2"	2"	4"	M/A
13 NATURAL GAS:	On Site	Competitive	Competitive	Preferred	Competitive	Competitive	Competitive	Preferred	Preferred	Preferred	Preferred	Preferred	Preferred
14 ELECTRICITY:	Minimum Service Demand	2 MW	4-6 MW	2-6 MW	1 MW	0.5 MW	0.5 MW	0.5 MW	1 MW	1 MW	0.5 MW	5-25 MW	1 MW
	Close Proximity to Substation	Competitive	Competitive	Not Required	Competitive	Preferred	Competitive	Preferred	Not Required	Not Required	Not Required	Required, could be on site	Not Required
	Redundancy Dependency	Required	Preferred	Not Required	Required	Not Required	Competitive	Required	Not Required	Not Required	Not Required	Required	Not Required
15 TELECOMMUNICATIONS:	Major Communications Dependency	Preferred	Required	Preferred	Required	Required	Required	Required	Preferred	Preferred	Required	Required	Preferred
	Route Diversity Dependency	Not Required	Required	Not Required	Required	Not Required	Preferred	Required	Not Required	Not Required	Not Required	Required	Not Required
	Fiber Optic Dependency	Preferred	Required	Preferred	Required	Preferred	Required	Required	Preferred	Preferred	Required	Required	Not Required
16 SPECIAL CONSIDERATIONS:		Adequate distance from sensitive land uses (residential, parks, large retail centers) necessary. High throughput of materials. Large yard spaces and/or buffering required. Often transportation related requiring marine/rail links.	Acreage allotment includes expansion space (often an exercisable option). Very high utility demands in one or more areas common. Sensitive to vibration from nearby uses.	May require high volum of supply of water and sanitary sewer treatment. Often needs substantial storage/yard space for input storage. Onsite water pre-treatment needed in many instances.	Surrounding environment of great concern (vibration, noise, air quality, etc.). Increased setbacks may be required. Onsite utility service areas. Avoid sites close to wastewater treatment plants, landfills, sewage lagoons, and similar land uses. Lower demands for water and sewer treatment than Production High-Tech Manufacturing.	Adequate distance from sensitive land uses (residential, parks) necessary. Moderate demand for water and sewer. Higher demand for electricity, gas, and telecom.	High diversity of facilities within business parks. RRD facilities benefit from close proximity to higher education facilities. Moderate demand on all infrastructure systems.	Relatively higher parking ratios may be necessary. Will be very sensitive to labor force and the location of other similar centers in the region. High reliance on telecom infrastructure.	Transportation routing and proximity to/from major highways is crucial. Expansion options required. Truck staging requirements mandatory. Minimal route obstructions between the site and interstate highway such as rail crossings, drawbridges, school zones, or similar obstacles.	Transportation infrastructure such as roads and bridges to/from major highways is most competitive factor.	Must be located within or near FAA-regulated UAV testing sites. Moderate utility demands. Low reliance on transportation infrastructure.	Larger sites may be needed. The 25 acre site requirement represents the more typical site. Power delivery, water supply, and security are critical. Surrounding environment (vibration, air quality, etc.) is crucial. May require high volume/supply of water and sanitary sewer treatment.	Located in more remote locations in the state. Usually without direct access (within 50 miles) of Interstate or City of more than 50,000 people.

Mackenzie, Business Oregon

Terms:	
More Critical ↑ Less Critical	'Required' factors are seen as mandatory in a vast majority of cases and have become industry standards.
	'Competitive' significantly increases marketability and is <i>highly recommended by Business Oregon</i> . May also be linked to financing in order to enhance the potential reuse of the asset in case of default.
	'Preferred' increases the feasibility of the subject property and its future reuse. Other factors may, however, prove more critical.
	* Competitive Acreage: Acreage that would meet the site selection requirements of the majority of industries in this sector.
	** Total Site: Building footprint, including buffers, setbacks, parking, mitigation, and expansion space
	† Data Center Water Requirements: Water requirement is reported as gallons per MWh to more closely align with the Data Center industry standard reporting of Water Usage Effectiveness (WUE).
	‡ Data Center Sewer Requirements: Sewer requirement is reported as 200% of the domestic usage at the Data Center facility. Water and sewer requirements for Data Centers are highly variable based on new technologies and should be reviewed on a case-by-case basis for specific development requirements.



Appendix B. Cleantech Industrial Sector Land Use Competitiveness Matrix

The Oregon Cleantech Competitiveness Assessment Report (Appendix D in the report) identified the following land use requirements for key cleantech subsectors in Oregon as described below.

Cleantech Land Use Criteria

Land use requirements for attracting and growing industrial users vary across sectors. We have reviewed typical land use and infrastructure needs based on existing facility development, anticipated growth needs, and similarities to existing established industrial users within the State. We have reviewed land use competitiveness for the following development criteria, which are commonly used when evaluating sites for attracting potential industrial users:

1. Total site size: Gross property area, including building footprint, setbacks, parking, laydown space, buffers and/or mitigation areas, and expansion areas.
 - A. Small: 0-5 acres
 - B. Medium: 5-25 acres
 - C. Large: > 25 acres
2. Use allowance: Specific manufacturing use allowed under current zoning. Development standards also may limit feasibility of necessary elements such as utility yards.
 - A. Low: Allowed outright
 - B. Medium: Allowed conditionally or with limitations
 - C. High: Not allowed
3. Site slope tolerance: Elevation differences across the site; generally, industries with large-footprint buildings or laydown yards require flatter sites.
 - A. Low: 0-5%
 - B. Moderate: 0-7%
 - C. High: 0-12%
4. Access to Interstate or Principal Arterial transportation routes: Access to shipping routes and available capacity for trips generated.
 - A. Low: Relatively low need for access to transportation routes.
 - B. Moderate: Access to principal transportation routes is preferred.
 - C. High: Access to principal transportation routes is required.
5. Railroad access: Proximity and capacity for rail freight systems, for either raw materials or finished goods.
 - A. Low: Relatively low need for rail access.
 - B. Moderate: Access to rail access is preferred.
 - C. High: Access to rail access is required.
6. Marine port access: Proximity and capacity for marine cargo shipping, for either raw materials or finished goods.
 - A. Low: Relatively low need for marine access.
 - B. Moderate: Access to marine access is preferred.



- C. High: Access to marine access is required.
- 7. Airport access: Proximity and flight availability for employees, customers, or air cargo.
 - A. Low: Relatively low need for airport access.
 - B. Moderate: Access to airport access is preferred.
 - C. High: Access to airport access is required.
- 8. High pressure water supply: Proximity and capacity for high pressure water supply, typically as municipal water.
 - A. Low: Significant water usage is not expected to be a critical component of this industry.
 - B. Moderate: Water usage may be high for this industry; high-pressure water supply is preferred.
 - C. High: High-pressure water supply is required.
- 9. Electricity supply: Proximity and capacity for electrical power.
 - A. Low: Significant electricity usage is not expected to be a critical component of this industry.
 - B. Moderate: Electrical usage may be high for this industry; high-demand service and/or redundancy is preferred.
 - C. High: High-demand service and/or redundant electrical supply is required.

The following table summarizes our recommendations of land use competitiveness for the selected Cleantech sectors across the criteria listed above.

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Table 12. Competitiveness Matrix for Select Cleantech Industries

	Battery Storage	Mass Timber	Ag-Tech	Circular Economy	Solar & Wind Energy Prod	Water Tech	Building Energy Tech	EV Infrastructure Tech
Site Size	Small to Large ³	Med to Large	Small ⁴	Small to Med ⁵	Med to Large ⁶	Small to Med	Small	Med to Large
Use Allowance	Varies by jurisdiction							
Slope Tolerance	Mod.	Low	High	Mod.	Mod.	Low	High	Mod.
Transportation Access	Low	High	Low	High	Mod.	Low	Low	High
Rail Access	Low	Mod.	Low	Mod.	Wind: High Solar: Low	Low	Low	Mod.
Marine Access	Low	Low	Low	Low to Mod.	Low to High ⁷	Low	Low	Low to Mod.
Airport Access	Low	Low	Mod.	Low	Low	Low	Mod.	High
High Pressure Water Needs	Low	Low to Mod.	Low	Mod.	Mod.	High	Low	Low
Electrical Supply Needs	High ⁸	Mod. to High	Low	Mod.	High ⁶	High	Mod. to High	High

Source: Oregon Cleantech Competitiveness Assessment Report, 2024

³ Battery storage site sizes may vary widely, from urban micro-grid installations to large-scale power grid storage.

⁴ The Ag-Tech industries identified in this study are assumed to generally focus on software and small-scale equipment products. These companies may use large-scale farms for product development or research; however, since those are likely to be existing operating farm facilities we do not identify them as a land use criteria here.

⁵ Site facility size for circular economy is dependent on the raw materials and finished products involved, and the industry scaling.

⁶ Site size for solar/wind manufacturing facilities is similar to advanced manufacturing industries, while sites for solar/wind power generation vary greatly depending on scale ranging from rooftop systems to grid-scale farms.

⁷ Off-shore wind power requires marine facilities to transport turbines and equipment to the generating site. Land-based wind power marine access varies.

⁸ Electrical system proximity and access for power generation facilities may vary, depending on the scale and intended use. Micro-grid systems may only need connection to the local electrical grid, while large-scale grid storage may require connection to regional transmission lines or substations.

