



Bureau of Planning and Sustainability
Innovation. Collaboration. Practical Solutions.

Portland Brownfield Redevelopment Assessment Summary of Findings

Findings

This study has found that brownfields exist in nearly all employment areas and neighborhood business districts throughout the city and that the feasibility of redevelopment on these sites is negatively impacted by remediation costs. The Portland Brownfield Assessment has concluded that while the financial feasibility gap that is attributed to remediation costs is quite large, the feasibility gap can be addressed through a variety of incentives and tools. Public investment in implementing these incentives and tools would pay for itself through increased tax revenue generated to the City of Portland, Multnomah County and the State of Oregon.

While the scale of the brownfield issue in Portland is quite large and there is a significant financial feasibility gap associated with brownfield redevelopment, it is imperative that a comprehensive and collaborative approach to brownfields be taken to achieve public and environmental health goals and to advance the economic competitiveness of the city and the region. No single incentive or tool is capable of leveraging redevelopment on more than a fraction of the brownfield inventory by 2035. To advance community development and economic development goals the City of Portland must work with local, regional and statewide partners to implement a broad program of incentives and tools.

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Central Study Question

What would it take to achieve cleanup and redevelopment on all or nearly all of Portland's brownfields in the next 25 years?

The primary barrier to brownfield redevelopment is financial feasibility. The estimated financial feasibility gap identified for the brownfield inventory is approximately \$240 million, based on conventional real estate development analysis of financial feasibility. Moreover, most of the brownfield inventory is on industrial sites, where lower redevelopment densities contribute to a wider financial gap. Fortunately, financial incentives for brownfield redevelopment can pay for themselves over time. The estimated payback period in state and local tax revenues ranges from 1 to 4 years on the different types of brownfields. A variety of best practice incentives and tools were evaluated and no single type of brownfield incentive or tool is capable of leveraging redevelopment on more than a fraction of the brownfield inventory by 2035. An effective 25-year strategy to redevelop most of our brownfields would require a broad program of multiple incentives and tools.

Assessment Overview

The cleanup and redevelopment of brownfield properties is a key growth strategy for meeting economic, environmental, and social goals for the City of Portland. The term "brownfield" refers to real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of hazardous substances. Portland is generally land locked and continued economic



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development requires adaptive reuse, infill and redevelopment of commercial and industrial property. Portland's Economic Opportunity Analysis (EOA) projects shortfalls of industrial and other types of employment land over the next 25 years and brownfield properties account for nearly one-third of the growth capacity in employment areas throughout the city. Brownfields face significant challenges in the marketplace but other cities have implemented tools and incentives to overcome these challenges. Despite increasing economic growth and demand for new real estate development, recent trends indicate that most of Portland's brownfield properties will continue to sit idle over the next 25 years without additional financial tools and incentives.

The Portland Plan and Comprehensive Plan Update provide opportunities to shape how Portland will develop over the next 25 years. In order to provide adequate land supply to capture economic development opportunities, effective public policy to encourage redevelopment of brownfields will be needed. To support those policy decisions, the Bureau of Planning and Sustainability, with a grant from Metro, has undertaken this Portland Brownfield Assessment to examine the financial and economic development characteristics of brownfield remediation and redevelopment, with a particular focus on industrial lands. Brownfield sites are traditionally characterized by real or potential environmental contamination concerns, but the driver for redevelopment of brownfields is their potential value when redeveloped.

Background

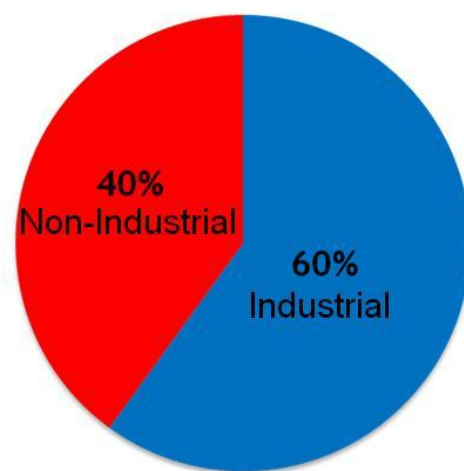
The federal Superfund Law and the Oregon Cleanup Law provide the regulatory framework for cleanup of contaminated sites, based on the principle that responsible parties must pay for remediation. This enforcement-based approach has been effective in addressing many of the most highly contaminated sites, but has its drawbacks. In many cases, the fear of liability for cleanup has had a chilling effect on new investment in properties that have experienced historical uses typically associated with contamination. Many potentially contaminated properties are owned by small businesses that do not have the financial resources to conduct expensive cleanups or that may have ceased operations years ago. These two factors have led to increasing numbers of vacant properties that contribute to blighted conditions.

Many brownfield properties are remediated with support from new investors, innocent parties that seek to redevelop the property. National and local experience with brownfields in the last 30 years has shown that these properties are more likely to be remediated within a shorter time frame and to meet or even exceed cleanup standards when they are part of a redevelopment effort. Incentives, combined with a predictable and efficient regulatory framework, have led to more cleanups than enforcement alone. This proactive approach can increase the rate of brownfield redevelopment to achieve policy goals and can play an integral role in meeting Portland's land demand needs over the 25-year planning horizon.

Brownfield Inventory

It is estimated that there are approximately 910 acres of potential brownfield properties in commercial and industrial areas of Portland (see Figure 1). While most of these sites are concentrated in industrial areas, brownfields are found in nearly every neighborhood in Portland. Portland's industrial areas (including the Standard

Figure 1. Brownfield Inventory by Land Use



Industrial, Superfund Shadow, and Portland Harbor Waterfront typologies) comprise nearly 559 acres, or more than 60 percent, of the employment lands brownfield total which if redeveloped could help offset the projected shortfall of industrial land forecasted for the next 25 years.

Financial Feasibility Analysis

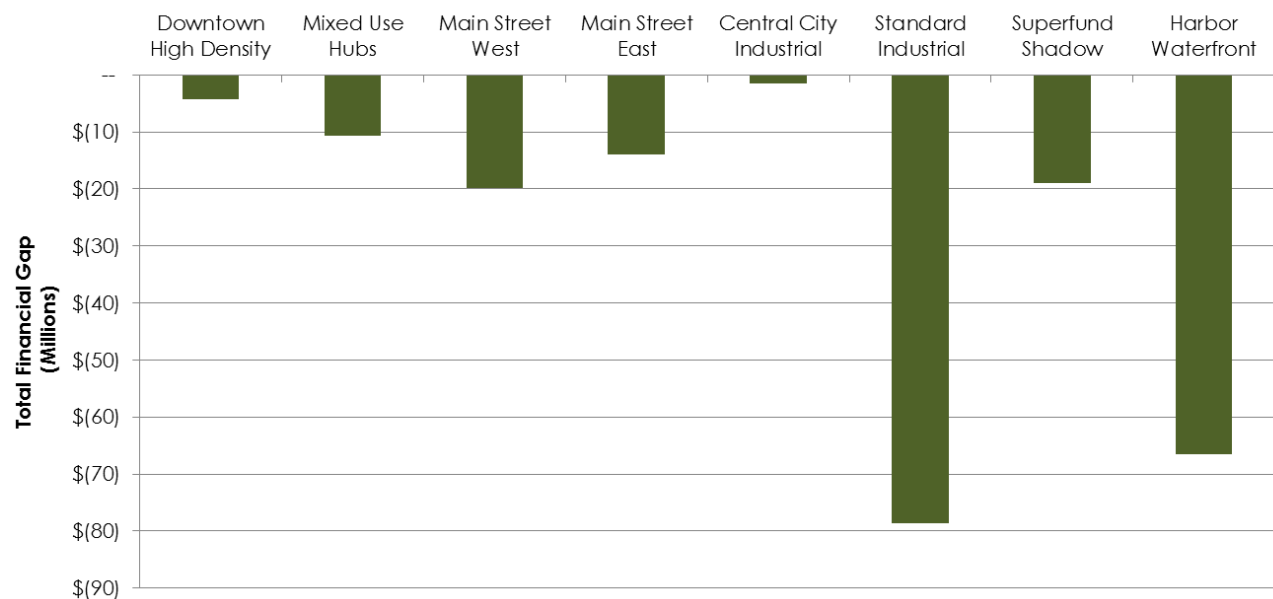
To assess the market potential for redevelopment of brownfields in Portland, a range of prototypical development scenarios were modeled for properties in the different typologies. The critical test of financial feasibility for the prototypical redevelopment scenarios lies in the relationship of project *cost to valuation*. If the valuation upon completion and resulting occupancy exceeds the cost of development, the project is viewed as feasible. In situations where valuation is less than cost, the project is viewed as having a “financial feasibility gap.” Generally, environmental cleanup costs have a stronger overall influence on feasibility than the costs associated with market variables such as rents, development costs, or location.

The total feasibility gap (or amount by which properties are financially underwater) is estimated at \$214 million across all employment brownfield typologies, or \$307 million when Superfund costs are included for affected properties. With potential federal Superfund liability costs added, the total cost of remediating affected properties within the Portland Harbor Waterfront is estimated to increase to as much as \$24 per square foot of site area—more than three times the market value of unconstrained industrial land.

Table 1. Brownfield Inventory by Typology

Typology/Zone/Site Type	Total
Downtown High Density	94.4
Mixed Use Hub	58
Main Street Com E of 82nd	57.6
Main Street Com W of 82nd	137
Central City Industrial	4.2
Standard Industrial	325.9
Superfund Shadow	78.8
Portland Harbor Waterfront	153.9
Total Acres	909.7

Figure 2. Estimate of Total Financial Feasibility Gap by Typology



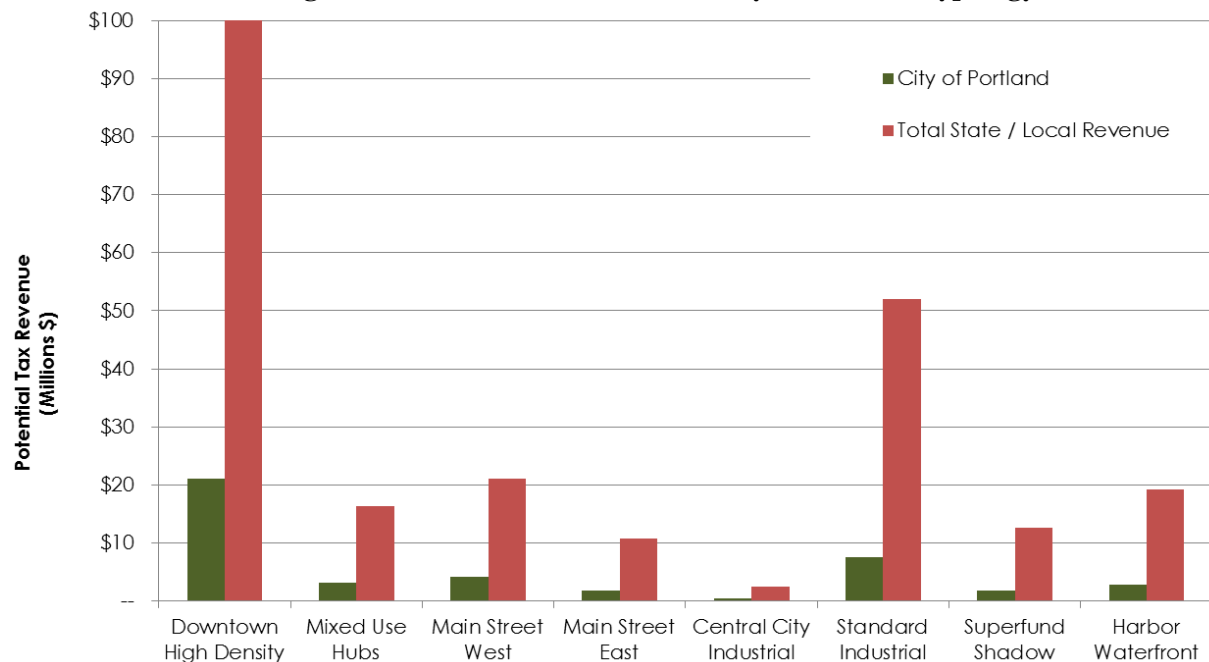
Redevelopment of industrial brownfields is generally challenging because cleanup costs often exceed the redeveloped property value, which is limited by the lower density of development. The financial gap for the Portland Harbor Waterfront is nearly \$67 million. Taken together, industrial properties account for a combined 77 percent of the overall feasibility gap associated with on-site remediation. This increases to an estimated 84 percent of the gap affecting brownfield constrained properties, if potential Superfund-related liability is included.

Public Benefit Analysis

Redevelopment of the full inventory of brownfield properties has the potential to provide over 31,000 gross jobs. This would generate an estimated \$1.4 billion in annual payroll potential for the affected sites. The number of jobs provided through each brownfield typology is driven both by employment density and by the number of acres in that category. Downtown High Density provides nearly 45 percent of the job potential. Another 8,300 jobs (27 percent of the total) may be oriented to Mixed-Use Hubs and Main Street areas. The industrial typologies account for approximately 9,200 (30 percent of total) potential jobs and 40 percent of the total projected annual payroll because of relatively high wage rates and large acreage of properties represented in the brownfield inventory.

Full redevelopment of the entire brownfield inventory also has the potential to generate approximately \$240 million per year in potential state and local income and property and business tax revenues (estimated in 2012 dollars). Annual tax revenues for Portland account for approximately \$42 million of that total (see Figure 3). Since tax revenues are largely driven by business and personal income taxes, the implications for typologies are similar to the employment figures. The high density of high-paying jobs in downtown annually drives over \$20 million in Portland taxes and over \$100 million in combined state and local tax revenues. Industrial typologies provide Portland approximately \$12 million in tax revenues and over \$86 million in combined state and local taxes.

Figure 3. Total Annual Tax Revenue by Brownfield Typology



The analysis indicates that Portland would see a net gain after less than ten years if it invested in remediated brownfields in the commercial typologies. The payback period for industrial sites is longer; the Portland Harbor Waterfront has a large financial gap and generates relatively low Portland tax revenues, so it takes over four decades for Portland to regain any investment in remediation.

Table 2. Payback Period of 100% Brownfield Redevelopment by Typology

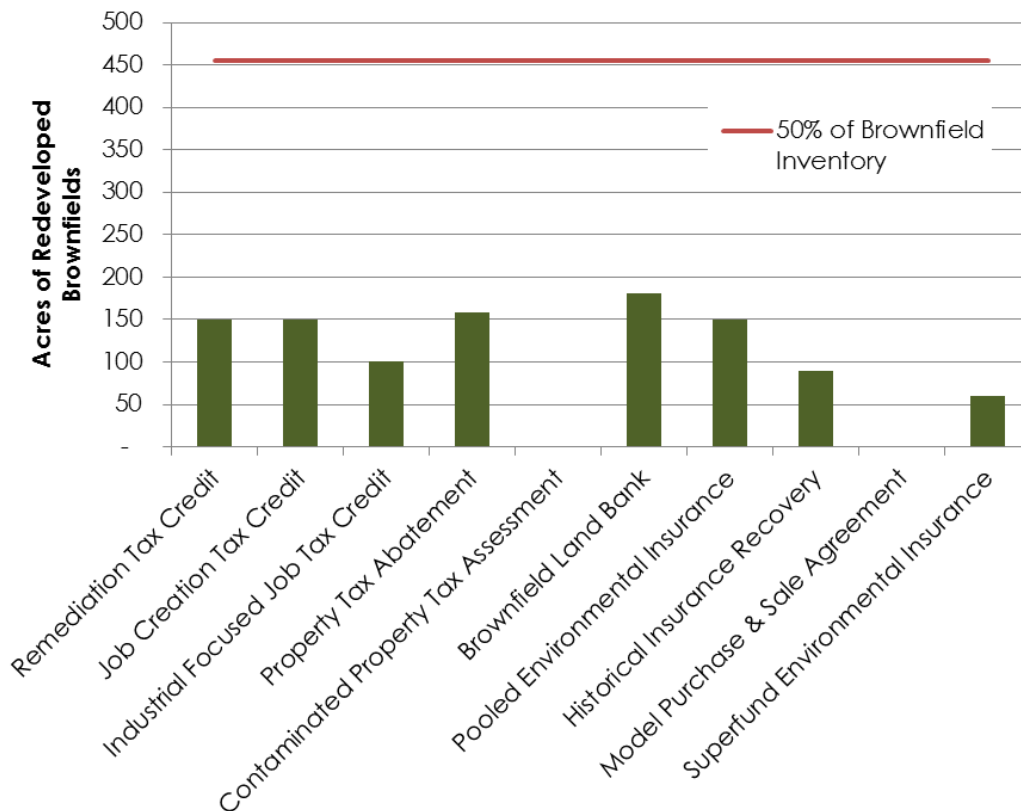
TYPOLOGY	YEARS	
	PORTLAND TAX REVENUE	TOTAL STATE & LOCAL TAX REVENUE
1. Downtown High Density	< 1	< 1
2. Mixed Use Hubs	4	< 1
3a. Main Street West	6	< 1
3b. Main Street East	9	2
4. Central City Industrial	4	< 1
5. Standard Industrial	13	2
6. Superfund Shadow	13	2
7. Portland Harbor Waterfront	43	4

These findings indicate that while Portland may be able to realize substantial ROIs in higher-value commercial brownfield properties, a regional or statewide investment is more appropriate for supporting remediation of industrial properties around the harbor. While this may appear financially advantageous for Portland, it is also important to consider that the EOA and the financial feasibility analysis indicate that the downtown commercial typology brownfields are also likely to develop without any public investment. A collaborative approach between the State of Oregon and the City of Portland could generate a complete payback on investment between 1 and 4 years for different brownfield types.

No single policy incentive will be sufficient to catalyze redevelopment of all the brownfields or even achieve a 50 percent target (see Figure 4). The Remediation Tax Credit, Job Creation Tax Credit, Redeveloped Brownfield Property Tax Abatement, Pooled Environmental Insurance, and Public Land Bank appear to have the largest potential impact, with each accounting for about 150 acres of brownfield redevelopment.



Figure 4. Potential for Policy Tools to Catalyze Brownfield Redevelopment



There is a particular focus on tools that could help meet the forecasted shortfall of industrial land supply. Most of the policy tools can be designed to focus on industrial properties by limiting eligibility to lands in industrial zones or other specifically designated areas. Brownfield incentives have the potential to reduce the projected industrial land supply shortfall, but will require significant investment with relatively low increase in Portland tax revenues. However, the tax revenues generated to Multnomah County and the State of Oregon for industrial redevelopment are substantial and support a rationale for shared investment in Portland industrial lands as a regional economic asset. Developing a strategy for implementation of an effective package of brownfield policy tools requires consideration not only of the potential fiscal return, but also of political, program development, and procedural factors.

