



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# **Washington State Brownfield Policy Recommendations**

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*Redeveloping Brownfields | Revitalizing Our Communities*

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# WASHINGTON STATE BROWNFIELD POLICY RECOMMENDATIONS

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REDEVELOPING BROWNFIELDS | REVITALIZING OUR COMMUNITIES

*Prepared for*  
**WASHINGTON STATE DEPARTMENT OF ECOLOGY**  
TOXICS CLEANUP PROGRAM  
*September 28, 2011*  
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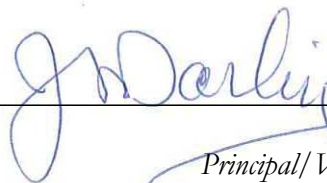


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WASHINGTON STATE BROWNFIELD POLICY RECOMMENDATIONS  
REDEVELOPING BROWNFIELDS | REVITALIZING OUR COMMUNITIES

*The material and data in this report were prepared  
under the supervision and direction of the undersigned.*

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The Department of Ecology would like to acknowledge the following individuals for their dedication to this project.

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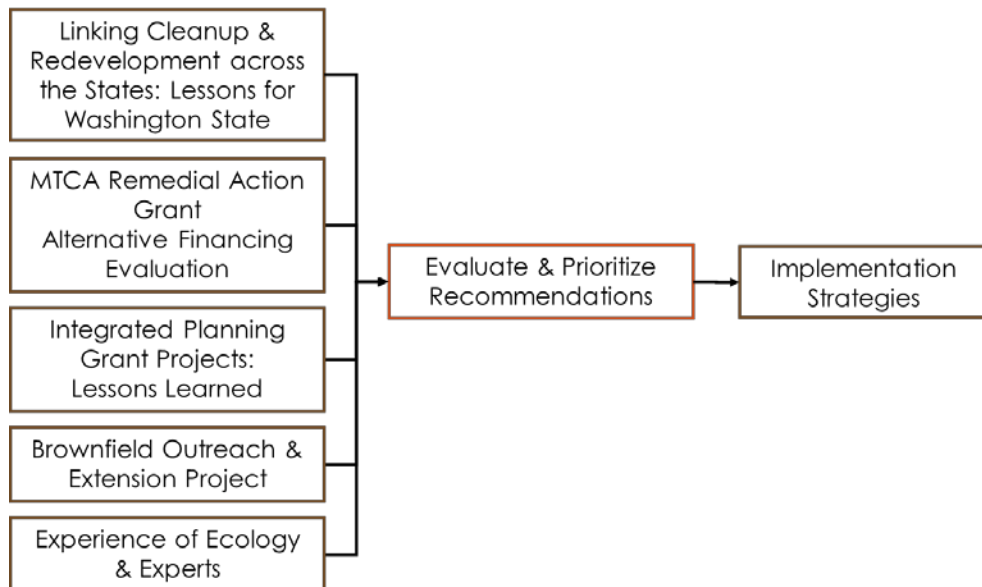
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The Washington State Brownfield Policy Recommendation effort is the culmination of a series of recent policy studies of the Washington State Toxics Cleanup Program and Model Toxics Control Act. These studies provide an expert, outside perspective to compare Washington State’s policies with the best practices of other states in terms of leveraging redevelopment to achieve cleanup, providing financial tools to support remediation, and building capacity in local communities to undertake brownfield projects (UW 2009, Ecology, 2010; MFA, 2010). The recommendations of these studies were integrated and reviewed from the perspective of the real world experience of an advisory panel of experts representing private sector, land development, academia, legal, and local and state government. The group met three times from December 2010 through May 2011. The advisory panel guided a detailed evaluation of brownfield challenges and solutions, as illustrated below, to formulate a comprehensive path forward for improving Washington State’s brownfield program. The goal of this policy planning process is to further the evolution of the State’s brownfield program into a “third generation” model that is strategic, efficient, and integrates economic forces and community perspectives to drive more environmental cleanups. The views and recommendations of the advisory panel are not necessarily endorsed by the Department of Ecology.

## Overview of Brownfield Policy Analysis Process



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## ACRONYMS AND ABBREVIATIONS

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B&O	business and occupation
BDA	brownfield development authority
BRLF	Brownfield Revolving Loan Fund
Ecology	Washington State Department of Ecology
GASB	Government Accounting Standards Board
GMA	Growth Management Act
IDD	Industrial Development District
LSRP	Licensed Site Remediation Professional
MTCA	Model Toxics Control Act
NFA	No Further Action letter
PDA	public development authority
PFCT	Publicly Funded Cleanup Trusts
PPA	prospective purchaser agreement
PPCD	prospective purchaser consent decree
RCW	Revised Code of Washington
TIF	tax increment financing
USEPA	U.S. Environmental Protection Agency
VCP	voluntary cleanup program
WAC	Washington Administrative Code

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## EXECUTIVE SUMMARY

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Across Washington State, local governments and private businesses are looking for ways to promote economic development and to recover from the worst economic downturn since the Great Depression. At the same time, communities are struggling with how to accommodate population growth that is projected to add 1.6 million more people to the state by 2030. Washington State will rejuvenate its economy and welcome new citizens without degrading natural resources by focusing development in cities and small towns. This policy has been established in the state Growth Management Act (GMA), and its wisdom is supported by leading forecasts in economic and community development. The role of “the creative city” as the generator for the innovation economy of the future is being increasingly recognized by businesses, academics, and civic leaders. Redevelopment in cities and urban growth areas frequently must address legacy environmental contamination from historical uses. Contaminated properties that lie abandoned or underutilized in cities and towns are called “brownfields.” The cleanup and redevelopment of brownfield properties is a critical strategy for economic development, growth management, and environmental protection. Redevelopment of brownfields presents a number of challenges, but also great opportunities for the economy, communities, and the environment.

### Challenges

Extrapolating from nationwide estimates, there may be as many as 19,200 brownfield properties in Washington State.

Over 11,400 contaminated properties have been reported to the Department of Ecology (Ecology). Over 2,000 of these properties have not yet begun the cleanup process.

150 completed cleanups are approved per year, but 300 new sites are identified, so the cleanup regulatory process is falling behind by 150 sites each year.

Based on national surveys, the average costs to clean up a typical brownfield range from \$600 thousand to \$1 million. This cost represents a huge barrier to redevelopment of these properties.

Demand for Washington State Remedial Action Grants is 3 times the forecasted budget for the next 10 years. These grants are a primary funding source for local governments to conduct cleanups. In average years,

approximately 50% of the Local Toxics Control Account is allocated to Remedial Action Grants.

A typical brownfield remediation project takes 4 years to complete the regulatory process under the Voluntary Cleanup Program and 5 years under the formal program. These average time cycles are getting longer every year.

## **Opportunities**

Cleanup and redevelopment of brownfields transform blighted properties that detract from neighborhoods into productive community assets.

Brownfield redevelopment creates construction jobs and long-term employment opportunities. Financial modeling of case studies in Washington State estimates that cleanup leverages redevelopment investments and multiplier effects to drive job creation at the rate of 1 job per \$15,000 to \$59,000 of remediation costs.

Brownfield redevelopment generates an estimated increase in annual local tax revenue of \$500 thousand per site.

The Hazardous Substance Tax, passed by voter initiative as part of the Model Toxics Control Act (MTCA), has generated over \$120 million per year that is dedicated to contamination cleanup, pollution prevention, and waste management. Washington State is a leader in the nation for providing this level of funding to these programs.

The multiplier benefits of every \$1 of state cleanup grant are estimated to drive \$6 in local tax revenue, \$7 in payroll revenue, and \$32 in business revenue.

Hundreds of units of affordable housing and dozens of acres of public open space have been created on remediated brownfields in Washington.

## **Policies to Accelerate Cleanup and Economic Redevelopment**

Washington State has been successful in cleaning up contaminated properties and establishing policies to promote urban redevelopment under MTCRA and GMA, respectively. Continued improvement is needed to support the state's transition to a third generation model for sustainable development of brownfields. This need for policy change is highlighted by four key issues:

1. The scale of the brownfield problem is large and it affects every county in the state. A comprehensive inventory of brownfield properties in the state has never been conducted, but over 11,400 contaminated sites have been reported to Ecology. Extrapolation based on national estimates indicates that there could be over 7,000 more sites in the state that have not yet even been identified.
2. The state is losing ground on the cleanup front. Approximately 150 more contaminated sites are reported every year than are cleaned up. This gap grows wider every year. The time it takes for an individual site to go through the cleanup process grows longer every year.
3. Large scale, multi-jurisdictional cleanups such as the Duwamish River, Bellingham Bay, and Budd Inlet, create a tremendous demand on agency resources potentially reducing the ability of the state to address other cleanup projects. For example, the Duwamish River Superfund site cleanup is ramping up and it is forecasted that 73 percent of Remedial Action Grant funds could potentially be dedicated to this project alone over the next 10 years.
4. Like many public agencies, the Toxics Cleanup Program is going through a demographic shift; 50 percent of the staff will be eligible for retirement by 2014. The coming wave of retirements will likely reduce the institutional knowledge and the capacity of the agency in unique skill sets.

There is currently a window of opportunity to position the state to successfully meet these challenges. A fundamental principle of these policy reforms is to harness real estate market forces to drive more cleanups and complete them more efficiently.

A package of policy recommendations has been developed by an Advisory Panel of stakeholders and experts led by the University of Washington to make brownfield redevelopment in the state more efficient and effective. These policies are grouped for implementation in three categories:

- Empowering communities
- Accelerating private investment
- Building capacity

## Empowering Communities

Cities, port districts, counties, housing authorities, public development authorities (PDAs), and other local public agencies play a leadership role in revitalizing our communities. Current state policy can be modified to provide

greater tools to support these efforts and reduce the risk these local governments take on when investing in contaminated property. The tools listed here and discussed below provide a package of mutually supportive policies to achieve these objectives. Local communities would be empowered to set priorities for brownfields, aligning economic, community development, public health, and environmental goals. They would have clear authority to use innovative tools to support redevelopment of priority neighborhoods and properties. The risk of environmental liability that often prevents local officials from engaging in brownfield projects would be limited so that their efforts on behalf of the public good would not put the taxpayers in financial jeopardy.

### Policies to Empower Communities

#### **Land Use Tools**

- *Brownfield Definition*
- *GMA Additions*
- *Brownfield Development Authorities*

#### **Financial Tools**

- *Integrated Planning Grants-*  
*Independent Remedial Action Grant*  
*Reform*
- *Publicly Funded Cleanup Trusts*

#### **Risk Management**

- *Liability Reform*
- *Prospective Purchaser Agreements*

#### **Efficiency and Capacity**

- *Licensed Site Remediation Professional Program*

## Land Use Tools

**Brownfield Definition**—Codify a definition of brownfields in administrative rules so that regulatory and funding programs in different state agencies have a basis of common understanding to coordinate responses that address the multi-faceted environmental, economic, and community issues of these projects.

**GMA Additions**—Amend GMA to explicitly include brownfields as part of the goal statements and to add required or optional components to comprehensive plans that address brownfield properties in the buildable land analysis, the land use element, and the economic element of comprehensive

plans. Authorize local governments to inventory brownfields and provide incentives such as regulatory flexibility and property tax abatements for redevelopment projects on listed sites.

**Brownfield Development Authorities (BDAs)**—Authorize creation of public corporations with the mission of remediating and redeveloping contaminated properties in a designated area. The BDA concept builds on existing successful models, including PDAs and industrial development districts as well as the Community Development Act and the Interlocal Cooperation Act. BDAs would have the following special powers not authorized under current statutes:

- Liability exemption in actions related to acquiring and managing contaminated property
- Ability to access privately held brownfields for the purpose of performing an environmental site investigation when there is a demonstrated threat to public health and welfare
- Statutory right to extend cleanup schedules adopted in consent decrees when necessary to align the schedule with grant funds available for cleanup of publicly owned sites

### **Financial Tools**

**Integrated Planning Grants**—Transition the Integrated Planning Grant from a pilot project to a permanent program through administrative rule-making. Change the name of the program to “Brownfield Integrated Planning Grants” to emphasize and clarify the objective of the grant. Integrated Planning Grants are a pilot initiative that provides up to \$200,000 with no match requirement, which allows local governments to conduct due diligence and create a well-developed strategy for cleanup and redevelopment before investing local funds.

**Independent Remedial Action Grant Reform**—Reform the payment policy for local governments that conduct voluntary cleanups to allow reimbursement for expenses on a monthly basis rather than after completion of the project. This would apply to local governments that demonstrate a clear commitment to completing the cleanup, such as Integrated Planning Grant recipients.

**Publicly Funded Cleanup Trusts**—Establish financial trusts to hold the total funds necessary for a cleanup project that is scheduled to take longer than two years. This provides grantees with certainty that funds will be available to offset environmental liabilities that will take more than one state budget biennium to resolve.

## **Risk Management**

Liability Reform—Provide liability protections for local government acquisition activities undertaken for the purpose of cleanup and redevelopment of blighted or abandoned property, or create a liability defense for innocent purchasers of contaminated sites. Also provide a release from liability when a project receives a No Further Action letter under the Voluntary Cleanup Program.

Prospective Purchaser Agreements—Reform the existing Prospective Purchaser Consent Decree program to make it more efficient and useful in delineating the legal liability for a party before the party acquires a contaminated property.

## **Efficiency and Capacity**

Licensed Site Remediation Professional (LSRP) Program—License environmental professionals and authorize them to certify cleanup actions as complete. Shift the state’s oversight role to auditing a set percentage of cleanups every year. The reduction in the length of time the cleanup process takes under these programs relative to the existing process provides greater efficiency and translates into financial savings for communities investing in cleanup and redevelopment of brownfields.

## **Accelerating Private Investment**

The private real estate market drives the vast majority of brownfield projects. In Washington State, 90 percent of new cleanup projects are led by private parties. While these private projects are often led by the parties that caused the contamination paying for cleanup, many sites are driven by innocent purchasers bringing a property back into productive use. Survey-based research and input from representatives of the development community in Washington State both indicate that the greatest needs for the private sector

### **Policies to Accelerate Private Investment**

#### **Risk Management**

- *Liability Reform*
- *Prospective Purchaser Agreements*

#### **Efficiency and Capacity**

- *Licensed Site Remediation Professional Program*

#### **Financial Tools**

- *Tax Incentives*

are predictability and certainty in the regulatory process and risk management tools. In the current real estate market, a readily accessible and dependable financial incentive, such as a tax credit, can also be critical to a project’s success. Taken together, these tools would greatly improve the environment for private party cleanups in the state. Because of the large proportion of private sites in the state and because such tools leverage private rather than public funds, this group of recommended policies likely provides the greatest return on government investment.

## Risk Management

Liability Reform—Create a liability defense for innocent purchasers of contaminated sites or provide a liability release when a party completes a cleanup under the voluntary program.

Prospective Purchaser Agreements—Reform the existing Prospective Purchaser Consent Decree program to make it more efficient and useful in delineating the legal liability for a party prior to acquiring a contaminated property.

## Efficiency and Capacity

LSRP Program—LSRP programs in other states have reduced the time needed to complete cleanup to one to two years, representing a substantial financial and market benefit for private developers.

## Financial Tools

Tax Incentives—Offer property tax abatements for a limited number of years and a sales tax exemption for environmental cleanup costs targeted to priority brownfield redevelopment areas and sites identified on local inventories.

## Building Capacity

Brownfield redevelopment requires a team of experts and substantial upfront funding. Successful projects often involve multiple partners from the private and public sectors. Each of these parties brings specialized expertise and financial resources to a project. A fundamentally important approach to efficiently completing more brownfield projects in the state is to increase the capacity of these organizations. A set of policy tools that address financial and staffing resources can be crafted to meet this need.

### Policies to Build Capacity

#### Financial Tools

- *Integrated Planning Grants*
- *Bonding MTCA Revenue*
- *Area-Wide Groundwater Grant*
- *Third-Party Brownfield Program*

#### Cleanup Process

- *Brownfield Definition*
- *Increase Voluntary Cleanup Program Staff*
- *Prospective Purchaser Consent Decrees*
- *Licensed Site Remediation Professional Program*

## Financial Tools

Integrated Planning Grants—Provide a unique funding opportunity that allows local governments to coordinate environmental due diligence and redevelopment planning with no match requirement. This increases the

financial capacity of local governments and allows them to thoroughly review a potential project before investing local tax dollars and taking on risk.

**Bonding MTCA Revenue**—Allocate a portion of the anticipated Hazardous Substance Tax revenue to support a stream of debt payments and use the generated bond proceeds to pursue identified remediation projects. This financing strategy could be particularly useful for funding large projects, such as the Duwamish River cleanup, that would otherwise overly constrain the use of MTCA funds for other projects in the state.

**Area-Wide Groundwater Remediation Grant**—Revise the rules of this existing grant program to reduce barriers to its use. The purpose of the area-wide groundwater grant program is to provide funding to local governments to facilitate the cleanup and redevelopment of properties where the groundwater has been contaminated by hazardous substances from multiple sources.

**Third-Party Brownfield Program**—Establish a nonprofit or academic institution that can assist owners and communities in understanding the cleanup and redevelopment process, how to manage risk, and how to access resources.

## **Cleanup Process**

**Brownfield Definition**—Creates foundational policy that supports directing resources to projects that may have lower environmental risk but higher economic and community benefit.

**Increase Voluntary Cleanup Program Staff**—Use fees paid by project proponents to increase the number of full-time staff or contractors to manage cleanup sites in the Voluntary Cleanup Program. Approximately 90 percent of new cleanup sites are entering the Voluntary Cleanup Program; increasing the number of staff will expedite completion of these projects.

**Prospective Purchaser Agreements**—Prioritizing resources at Ecology and the Attorney General’s Office to execute Prospective Purchaser Consent Decrees would allow this tool to be used more often and more expediently.

**LSRP Program**—This program has the effect of dramatically expanding the number of professionals authorized to certify completion of cleanups. Other states that have adopted this model have seen a tenfold increase in the number of cleanups completed each year.



## Impact of Policy Recommendations

Based on research on the experience of other states that have adopted these policies and Washington State records on the performance of the Toxics Cleanup Program, a preliminary forecast of the outcomes of the policy recommendations has been developed (see the table below). Additionally, the long-term increase in new brownfield sites completing the cleanup process based on the Building Capacity recommendations has been estimated (see the figure below). It is inherently difficult to accurately estimate the future number of cleanups completed. This estimate is based on a number of assumptions detailed in the full report, but it provides an order-of-magnitude sense of the long-term impact of the policy recommendations. It is forecasted that the number of brownfield cleanups completed in the state could increase from the current number of approximately 150 per year to over 1,600 per year. This analysis highlights the tremendous potential of the LSRP program, in particular, to facilitate and expedite cleanups. The states that have adopted LSRP programs had varied experiences the time to realize increases in cleanups. In Massachusetts, the number of sites cleaned up per year increased tenfold in only a few years. New Jersey has taken an incremental approach to adopting a full LSRP program. In the first year after adopting an LSRP with the full set of tools, the number of cleanups per year increased 25 percent. The experience in New Jersey has demonstrated that the full benefits of an LSRP program come only with a program that includes robust authority for the licensed professionals to certify cleanups.

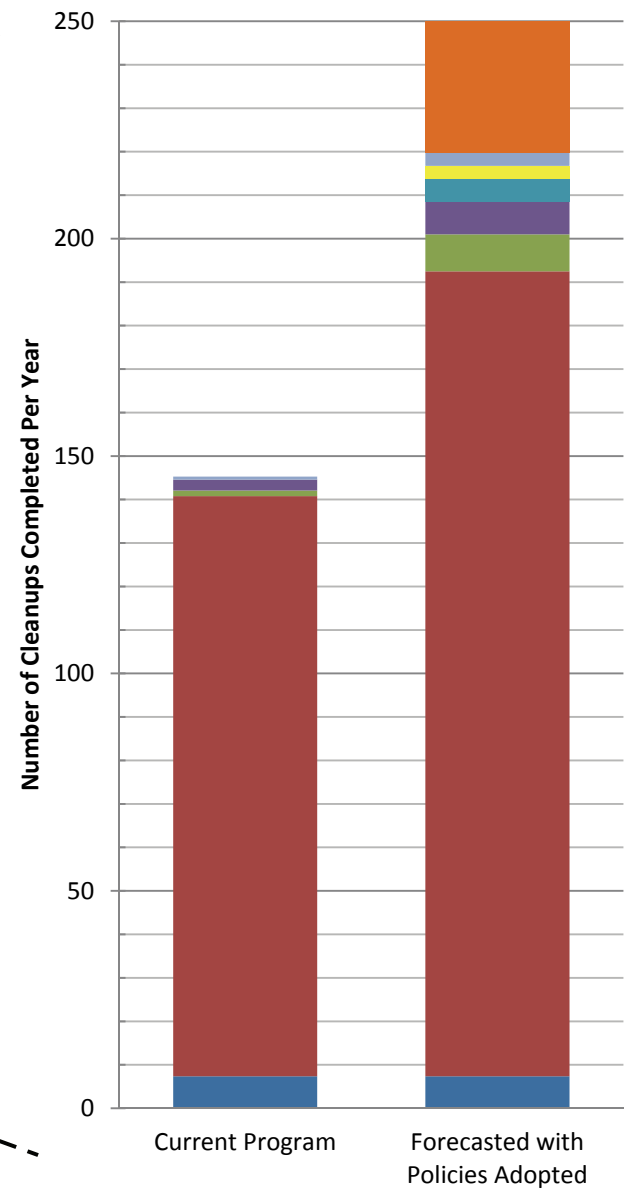
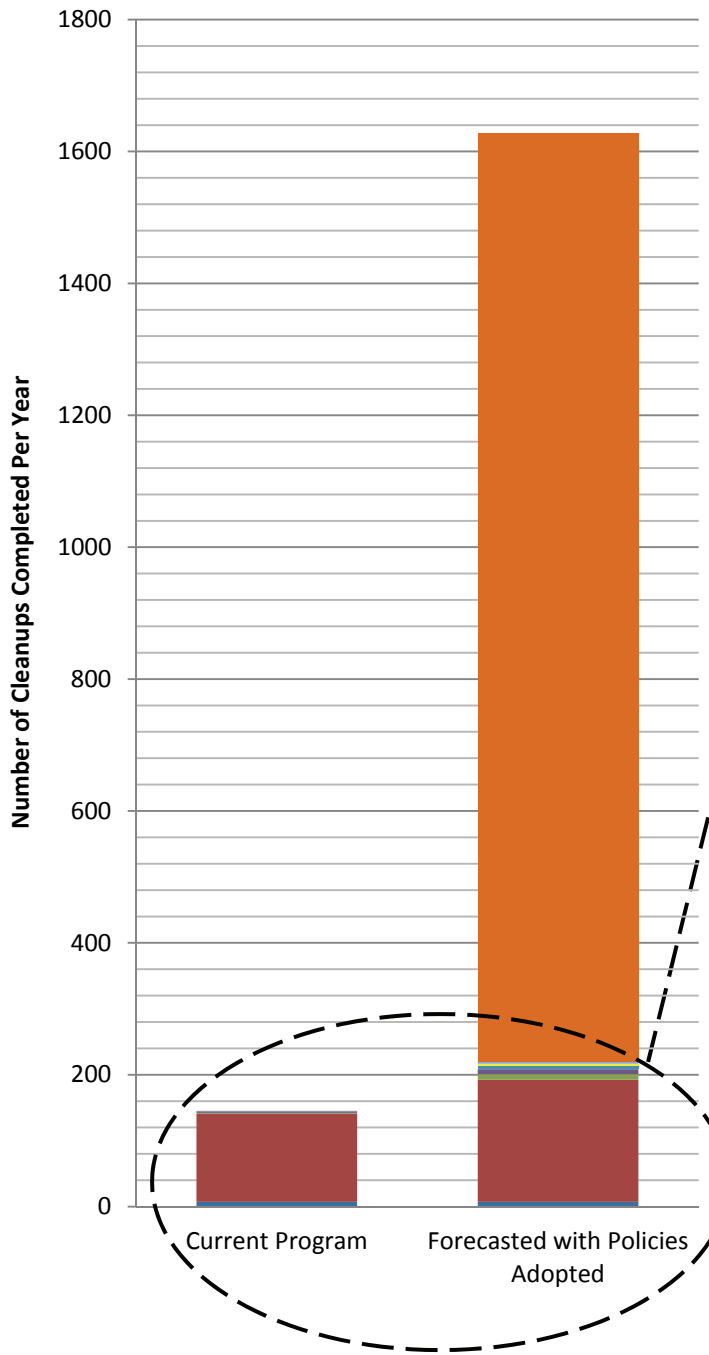
## Brownfield Policy Recommendations Summary

Policy Recommendations (In order of priority as ranked by Advisory Panel)	Empowering Communities	Accelerating Private Development	Building Capacity	Outcome	Policy Phasing
Make Integrated Planning Grants a Permanent Program	●		●	Meet current demand of 14 projects representing \$2.8 million in grant requests for 2011 alone	Short-Term
Prospective Purchaser Agreement Improvements	●	●	●	Increase use of this important tool from 1 per year to 8 per year.	Short-term
Codify Brownfield Definition	●	○	●	Creates clear authority for regulatory and funding programs. Support a policy approach that leverages the financial resources and energy of redevelopment to achieve cleanup.	Short-Term
Create Brownfield Development Authorities	●	○	○	Provides local governments with unique tools to promote brownfield redevelopment in the context of community-wide revitalization.	Short-term
Create a Licensed Site Remediation Professional Program to Certify Cleanups	●	●	●	Increase number of cleanups completed from 200 per year to 2,000 per year. Decrease length of process from 4-5 years to 1-2 years.	Mid-term
Increase Environmental Liability Protections	●	●		Protects innocent parties willing to invest in brownfield redevelopment. Puts Washington on par with other states in attracting developers.	Short-term
Create Publicly Funded Cleanup Trust	●			Provides funding certainty for the 63% of forecasted state grantees that will take on long-term, complex cleanups	Short-Term
Set Aside Portion of Remedial Action Grants for Small Towns and Rural Counties	○		○	Communities will have access to greater resources to cleanup brownfields in small towns where they have disproportionate impacts	Short-Term
Increase Brownfield Connection to Growth Management Act	●			Inventories of brownfields provide clarity on scale of the problem in individual communities and the state. New tools provide redevelopment incentives and add market value to these financially distressed properties	Mid-term
Reform Area-wide Groundwater Remedial Action Grants	○		●	Makes funds available for communities to examine contamination problems that are too broad for property owners to address individually	Short-Term
Create a Third Party Brownfield Outreach Program	○	○	●	Local governments and private parties gain access to greater resources for brownfields including potential to leverage millions of dollars in federal brownfield grants.	Mid-Term
Reform Grant Reimbursement Policy for Voluntary Cleanups	●			Approximately 25% of sites have been cleaned up through the Voluntary Cleanup Program in the past. Less than 2% of remedial action grants have been awarded for voluntary cleanups. Policy will likely more than double that funding level.	Short-Term
Increase Voluntary Cleanup Program Staff	○	○	●	90% of new sites are entering the Voluntary Cleanup Program. Increased staffing will provide resources to process these sites more efficiently.	Short-Term
Amend Existing Tax Increment Financing Laws to Emphasize Brownfield Cleanup & Redevelopment	○			Expands local resources available to support cleanup of brownfields.	Short-term
Broaden the Site Prioritization Framework		○		Encourages Ecology to be more sensitive to real estate market opportunities and timing to leverage cleanup. It would generate efficiencies by focusing more resources on projects with proponents that are highly motivated and ready to proceed.	Mid-Term
Improve Transactional Sequencing	○			Remove significant barriers to local governments leading brownfield projects by reducing risk associated with cleanup liability.	Short-term
Use MTCA Tax Revenues for State or Local Bonding	○		●	Potential to generate \$350 million in bond revenues to support cleanup.	Mid-term
Create Tax Incentives for Environmental Cleanup Actions		●		Over 250 sites per year expected to take advantage of tax incentive making these projects more financially feasible.	Short-Term
Provide Pooled or State Subsidized Environmental Insurance	○	○	○	Makes environmental insurance available to almost all cleanup sites. Greatly reduces risk of unknown or unanticipated contamination.	Mid-term
Improve the Brownfield Revolving Loan Fund	○	○	○	Increase the activity and effectiveness of one of the only public funding sources available to private parties.	Mid-term
Establish a Contaminated Property Transfer and Closure Reporting System			○	Provide a better understanding of the number of contaminated sites in the state and increase public awareness of the presence and magnitude of the problem. Could improve the ability of the state to track potentially liable parties.	Mid-term

**LEGEND:**

● = PRIMARY, ○ = SECONDARY; SHORT-TERM = 1-2 years, MID-TERM = 3-5 years

### Forecasted Number of Cleanups Completed with Adoption of Capacity Building Policy Recommendations



# 1 BROWNFIELD CHALLENGES AND OPPORTUNITIES

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Communities across Washington State are looking for ways to adapt to economic and cultural changes and help our cities and towns thrive. In recent decades, our populations and development have expanded into suburban areas, turning many downtown districts and industrial areas into shadows of their vibrant pasts.

Today, social and economic trends and Washington State's Growth Management Act (GMA) are leading to increased efforts to revitalize our towns and cities. The move back to cities and towns requires positioning them to take advantage of the opportunities of the twenty-first century. "Adaptive reuse" is the process of renovating and redeveloping existing buildings and properties for new activities. As communities seek to adaptively reuse properties in developed areas, the issue of contamination from historical activities must be addressed. Underutilized properties where environmental contamination hinders redevelopment goals are called "brownfields." These properties can create significant negative impacts on communities, including:

- Threats to public health and the environment
- Blight and stigma that impact the value of surrounding properties
- Diminished local and state tax revenues
- Lost opportunities for jobs and economic development
- Attractive nuisance for vandalism and crime

The economy of the Pacific Northwest is shifting from traditional industries based predominantly on natural resource extraction to new sectors including technology, tourism, finance, and health services. Historical industries and waste management practices have left a legacy of contamination in our state's soil, groundwater, rivers, and bays. Many of these contaminated properties sites are ideally located for redevelopment to support new uses. However, the potential risks to public health and the environment from contaminated properties complicate their redevelopment. The cleanup and redevelopment of brownfields is a key tool for revitalizing our communities and our economies to address legacy issues and take advantage of new opportunities.

## 1.1 Scale of the Problem

The challenge of addressing brownfield properties is not limited to the industrial areas of our large cities, but spans the state from pulp and paper mill sites in rural areas to corner gas stations and dry cleaners in suburbs and small towns alike.

The impact of brownfield properties in communities across the state is easy to see but difficult to quantify. The state has never conducted a survey to identify and catalogue potential brownfield properties. Owners of potentially contaminated properties are often unwilling to report environmental concerns for fear of costs and liability. The federal government has estimated that there are 450,000 to 1,000,000 brownfields in the United States (GAO, 2004). Based on this estimate, Washington State likely has 8,600 to 19,200 brownfield properties. This state estimate is derived from the national statistics based on analysis of the number of brownfields per capita. The wide range of these numbers indicates the uncertainty of these estimates.

There are an estimated **8,600** to **19,200** brownfield properties in Washington State

Several cities and counties in the state have undertaken efforts to proactively inventory brownfield properties.

- Over 350 former gas stations in Pierce County have no record of underground storage tank removals. Many of these sites sit above drinking water aquifers.
- Over 500 brownfields were catalogued in Kitsap County alone.

The numbers of brownfields identified in these surveys align with the national estimates on a per capita basis, supporting the conclusion that there are likely thousands of brownfield properties in Washington State that are currently unreported and unknown but causing real impacts to our communities and environment.

The Washington State Department of Ecology (Ecology) maintains a database of all potentially contaminated sites that are reported to the agency. As of May 2011, the list included over 11,400 sites. Not all of these sites are abandoned, vacant, or underutilized, so they should not all be considered brownfields. However, this database does provide useful indicators. Over half of the listed sites have been cleaned up since Washington State's Model Toxics Control Act (MTCRA) was passed as a public referendum (Initiative 97) in 1988. Cleanup actions are currently in progress at approximately 3,000 sites, but there are almost 2,000 sites on the list waiting to begin the process (See Figure 1-1). These sites are concentrated in the most urbanized parts of the state but occur in

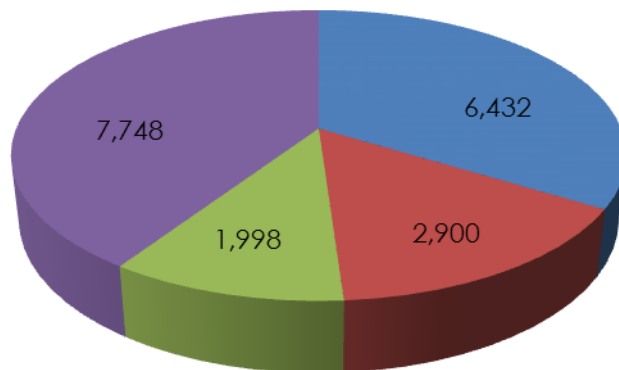
Each year **150** more contaminated sites are identified than are cleaned up

every county (see Figure 1-2).

In recent years, Ecology has issued approximately 150 No Further Action letters (NFAs) per year, declaring that cleanup has been completed, but over 300 new sites are reported every year. This means that twice as many new sites are identified each year than are cleaned up. While great progress has been made to clean up contaminated sites, the State is losing ground in this effort.

**Figure 1-1. Comparison of Estimate of Potential Brownfield Properties and Ecology Database of Contaminated Sites**

Estimated total of 19,200 potential brownfields in the state



- Known Contaminated Sites Reported Cleaned Up or No Further Action Letter Issued
- Known Contaminated Sites Where Cleanup Process Has Started
- Known Contaminated Sites Awaiting Cleanup
- Potential Brownfields Not Yet Identified



## 1.2 Economic, Community, and Environmental Benefits

Environmental cleanup drove property values on Tacoma's Thea Foss Waterway from \$11 / ft<sup>2</sup> in 1996 to \$39 / ft<sup>2</sup> in 2006

The cleanup and redevelopment of brownfield properties is a tremendous opportunity to develop the state's economy and improve the quality of our communities while protecting the environment. Redevelopment of brownfield properties can transform these liabilities into community assets that provide multiple benefits, including job creation, increased tax revenues, pollution reduction, infrastructure cost savings, and reduction of suburban sprawl. Studies of the economic impacts of brownfield redevelopment across the country provide the following findings.

### Job Creation

The cleanup and redevelopment of brownfields drive retention and creation of jobs through site cleanup, vertical construction, and operation of new businesses on the property. A recent national survey found that over 161,000 jobs were created on 2,118 brownfield properties (U.S. Conference of Mayors, 2010). The number of jobs generated through an individual brownfield project can vary greatly, based on the size of the property and its future use. The following table presents a summary of findings from national surveys and individual projects in Washington State.

**Table 1-1. Job Creation on Brownfields**

Project	Total Jobs	Construction	Long-Term
National Average <sup>a</sup>	76	30	46
Rainier Court Phase I, Seattle <sup>b</sup>	175	150	25
Thea Foss, Tacoma <sup>c</sup>	450		
Kendall Yards, Spokane <sup>d</sup>	1,642	1,198	444

NOTES:  
<sup>a</sup>U.S. Conference of Mayors. 2010. Recycling America's land: a national report on brownfields redevelopment. Vol. IX.  
<sup>b</sup>King County Brownfields Program. 2006.  
<sup>c</sup>Ecology. Model Toxics Control Act fiscal year 2008 annual report.  
<sup>d</sup>Wittstruck, M. 2011. Update: Kendall Yards neighborhood development. Projections for fifth year of development. City of Spokane.

Based on a national review of published reports, it has been estimated that public investment of \$10,000 to \$13,000 leverages one new job on brownfield properties (Paull, 2008). Financial models indicate that Washington State Remedial Action Grants on brownfield projects leverage other investments to generate employment with a range of one job per \$7,000 to \$30,000 of MTCA funds (Ecology, 2010). This statistic aligns with the national estimate and the strong job creation return on investment from the Washington State Community Economic Revitalization Board funding,



which averages one new job per \$9,600 of grant or loan (Community Economic Revitalization Board, 2010).

### **Tax Revenue**

By putting blighted or abandoned property back into productive use, redevelopment of brownfields also increases local and state tax revenues. A recent survey of cities across the country found that \$309 million in additional local tax revenues was generated from 654 redeveloped brownfield sites (U.S. Conference of Mayors, 2010). Research indicates that public investment in specific brownfield projects typically is recouped from increased local tax revenue in approximately five years (Paull, 2008). Financial modeling of MTCA Remedial Action Grant investments estimates a 6:1 return from local and state tax revenue for every dollar of public funds (Ecology, 2010).



### **Community Benefits**

The community benefits of brownfield redevelopment are more difficult to measure but are no less real than the economic and environmental impacts. These benefits include:

- Creation of public open space and waterfront access, including Seattle's Olympic Sculpture Park (a former bulk fuel storage site) and Tacoma's Thea Foss Waterway (a historically industrial area)
- Construction of affordable housing, including 42 units of senior housing in Port Orchard Mitchell Avenue development, 386 units at Rainier Court in Seattle, and 60 units at Kendall Yards in Spokane
- Elimination of blight and threats to public health at sites across the state, including cleanup and restoration of the Town of

Skykomish, where much of the small city has been renovated in the process of cleaning up historical contamination from rail yard activities

- Civic engagement through community planning and revitalization efforts

### **Environmental Benefits**

The cleanup of brownfield projects reduces the exposure of animals, plants, and waterways to toxic contaminants. Since brownfields are located in developed areas, whether in large cities or small towns, redevelopment provides the benefits associated with urban infill development, including:

Over **6,400** cleanups have been completed since MTCA was enacted in 1988.

- Reducing vehicle miles travelled by 20 to 40 percent compared to new construction on undeveloped land and associated air quality and climate change impacts (Paull, 2008).
- Reducing the demand for sprawl development. It has been estimated that 1 acre of redeveloped brownfield property absorbs growth that would consume 4.5 acres of undeveloped land (Deason, Sherk, and Carroll, 2001).

Specific accomplishments of note in Washington State include:

- Over 6,400 cleanups completed under MTCA.
- Nearly 750 cleanups completed within 0.5 mile of Puget Sound.
- Releases from leaking underground storage tanks have been reduced from nearly 800 per year to fewer than 50 per year since 1990.

### **1.3 Third-Generation Brownfields Program**

To fully realize the potential for brownfield redevelopment to support economic development, community revitalization, and environmental protection, Washington State must establish the proper policies to support and promote these projects. The policy framework for cleanup of contaminated sites has evolved since its inception in the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or the Superfund Law).

The **first generation** of cleanup programs arose with the passage of the federal Superfund Law and similar state statutes in the 1980s. This approach focused on identifying contaminated sites, declaring parties potentially liable, and enforcing cleanup responsibilities. The strict, joint, and several liability regime<sup>1</sup> applied to the Superfund Law and adopted by Washington State's MTCA often resulted in confusion in the real estate and development markets and, in many cases, exacerbated the negative market view of brownfield properties. Despite the best intentions of regulators and the desire of owners to develop their properties, lenders and prospective developers were often dissuaded from investing in these sites by fears of liability and uncertainty. It can be argued that these first-generation regulations exacerbated the brownfield problem in the real estate market.

The **second-generation** approach tried to reduce the challenges to brownfield redevelopment as regulators and property owners recognized the economic benefits of cleanup and adaptive reuse of properties. This resulted in regulatory reforms in the 1990s and early 2000s, including voluntary cleanup programs (VCPs) specifically designed to promote redevelopment and limit liability of innocent purchasers and lenders.

The emerging **third-generation** approach to brownfield cleanup and redevelopment integrates environmental cleanup and economic revitalization with community development. The synergy of environmental, economic, and community benefits differentiates a third-generation brownfield effort from earlier cleanup projects. This model aligns with the triple-bottom-line approach to sustainable development that evaluates projects' economic, environmental, and social impacts (Figure 1-3).

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<sup>1</sup> "Strict liability" means that responsibility is imposed without fault and a party cannot argue lack of diligence or ignorance as a defense. "Joint and several liability" means that each potentially liable party can be made responsible for the entire cost of the cleanup, regardless of the existence of other potentially liable parties.

**Figure 1-3. Triple-Bottom-Line Framework of Third-Generation Brownfield Approach**



The added emphasis on community development in brownfield projects often involves building partnerships with state and federal government agencies, nongovernmental organizations (e.g., land trusts), community groups, educational institutions, and involved citizens. These collaborations facilitate creation of public open space; preservation of historic and cultural resources; learning opportunities; and an economic and land use paradigm based on the intrinsic values of a community. These projects often look more like large public works projects than traditional cleanups. This approach helps to create vital and successful communities that embrace the values and assets created by previous generations, while at the same time transitioning local economies to thrive in the twenty-first century.

Washington State's programs and policies can be considered a mix of each of these models. The liability framework of MTCA is typical of first-generation programs. The VCP is a second-generation reform. The use of Remedial Action Grants and the Integrated Planning Grant program in particular are strong symbols of third-generation programs. The policy recommendations in this report represent ways that the state can support the transition into a third-generation model.

# 2 CHALLENGES TO ADDRESS

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## 2.1 Primary Challenges

Cleanup and redevelopment of brownfield properties are constrained by five primary challenges:

- Linking cleanup and redevelopment
- Cost of contamination investigation and cleanup
- Potential liability for contamination/risk management
- Length of the regulatory cleanup process
- Impacts of area-wide contamination

There are numerous other impediments to brownfield cleanup and redevelopment difficulties that derive from these primary challenges. Washington State has developed programs and policies to address these challenges, but a number of key issues continue to inhibit public and private efforts to remediate and redevelop brownfield properties. The following tables provide a high-level overview of these challenges, existing policy tools, and continuing issues.

### 2.1.1 Linking Cleanup and Redevelopment

While brownfield cleanup and redevelopment can achieve multiple Washington State policy goals, including economic development, growth management, and environmental protection, the state’s laws and regulations do not adequately emphasize these important connections. Redevelopment is a stated goal in the MTCA statute, but its implementation is focused on cleanup and does not include much consideration of real estate development economics or timeframes. The current approach can result in missed opportunities to capitalize on development potential to drive cleanup.

<b>Existing Policy Tools</b>	<b>Continuing Challenges</b>
<i>Integrated Planning Grants</i> —This pilot program provides grants to local governments to conduct planning for both redevelopment and cleanup with MTCA funds.	<i>Lack of a Codified Definition of Brownfields</i> —With no definition in state law or regulations, coordination is lacking on this issue across state agencies and programs.  <i>Lack of Connection between Brownfield Redevelopment and Growth Management</i> —While the GMA emphasizes infill development and land recycling, there is no explicit recognition of the role of brownfields in achieving that goal.

## 2.1.2 Cost of Contamination Investigation and Cleanup

Redevelopment of brownfield properties requires substantial upfront investment to characterize the nature and extent of contamination, develop a cleanup plan, and conduct the remedial actions. These costs are incurred at the beginning of the project, well ahead of the opportunity to generate revenues to offset them. This financial challenge often leads to properties lying abandoned or underutilized for years.

Existing Policy Tools	Continuing Challenges
<p><i>Remedial Action Grants</i>—These state grants to local governments typically provide 50% of eligible project costs, but can be increased to 90% under certain conditions.</p>	<p><i>Limited Financial Incentives for Private Investment</i>—The BRLF is the only Washington State program that offers financial assistance for private sector cleanup. It has limited capacity and has executed only six loans in its ten-year history. From 1998 to 2003, the state provided a sales and use tax exemption and a reduced Business and Occupation (B&amp;O) tax rate for remedial actions. This program was allowed to sunset in 2003.</p>
<p><i>Brownfield Revolving Loan Fund (BRLF)</i>—Low-interest loans are available to public or private parties through the BRLF, which is capitalized by the U.S. Environmental Protection Agency.</p>	<p><i>Demand for Remedial Action Grants Exceeds Capacity</i>—There is a projected demand for \$925 million in Remedial Action Grants over the next ten years, compared to a forecasted \$312 million in available funding (Ecology, 2011).</p> <p><i>Managing Financial Liability</i>—The reimbursement structure of Remedial Action Grants creates a challenge for local governments. Government Accounting Standards Board (GASB) Statement 49 requires that governments reflect a known, expected environmental remediation cost as a current liability in their financial reports. GASB 33 precludes a municipal government from recognizing grant funds that have not been collected during the financial statement reporting period. Governments must report the full liability and only a portion of potential offsetting funds, which can make them appear financially distressed and, potentially impact their ability to cost effectively bonds.</p> <p><i>Lack of Certainty for Funding across Multiple Biennia</i>—Remedial Action Grants are subject to appropriation by the State legislature. This constrains Ecology from committing funds beyond the capital budget biennium. To be eligible for Oversight Remedial Action Grants, local governments must enter into a legally binding agreement to complete a cleanup. So for example, while a municipality can delay a sidewalk project if funding is not available, they are legally liable to complete a cleanup whether they receive grant funds in out years or not.</p> <p><i>Diversity of Sites</i>—It can be challenging for small sites to produce enough value to offset high cleanup costs.</p>

### 2.1.3 Threat of Potential Liability/ Risk Management

MTCA establishes a strict, joint, and several liability framework that creates significant risk for potential new owners of brownfield properties. The uncertainty of liability is considered to be the greatest challenge inherent in this issue. Defining and quantifying liability is often the key to facilitating a property transaction or redevelopment project.

Existing Policy Tools	Continuing Challenges
<p><i>Consent Decree</i>—Legal contract between Washington State and potentially liable party to settle liability. Provides protection from third-party claims as well.</p> <p><i>Prospective purchaser consent decree (PPCD)</i>—Legal agreement between Washington State and a prospective owner or developer of a property to apportion liability. Settles liability with the state and provides protection from third-party claims as well.</p>	<p><i>Lack of Liability Release in Voluntary Context</i>—Strong liability protections are available only through the consent decree, which requires significant legal and transactional costs. Forty-six other states offer some form of liability release for voluntary cleanups (CCLR, 2007).</p> <p><i>Limited Protections for Innocent Purchasers</i>—A new owner acquires strict joint and several liability for a property, even without having contributed to contamination of the site. Many states have adopted protections for these innocent purchasers to reduce their risk while still holding the polluters liable.</p> <p><i>Difficulty Dedicating Resources to Sites That Are Not Major Environmental Risks</i>—There is limited staff capacity at Ecology and the Attorney General's Office to undertake consent decrees and PPCDs. Resources generally are dedicated to projects that pose the greatest environmental risk. This leaves projects that may have great economic or community benefit without the opportunity to seek liability protection, which can be a major driver for a project.</p> <p><i>Rare Application of PPCDs</i>—the MTCA statute and subsequent policy guidelines outline when a party may be eligible to enter into a PPCD. On average, only one PPCD is executed per year. The use is limited because the criteria for eligibility are interpreted to be exceedingly high and staff resources are limited.</p>

## 2.1.4 Length of Cleanup Process

Analysis of records from the last ten years indicates that cleanups under the VCP have slowed from reaching completion in less than two years to currently taking over four years. Cleanups under the formal program average 5 years for typical sites, but commonly extend from 8 to 12 years for complex sites. A number of factors contribute to the increasing length of time it takes to complete the cleanup process, including the following:

- Site owners are entering the cleanup process earlier in the development cycle.
- Many of the simpler cleanups have already been completed and many remaining sites involve more complicated issues such as groundwater and sediment contamination.
- Increasingly stringent environmental regulations create a more complex administrative process.
- Regulatory agencies tend to develop a risk-averse culture that makes timely decision-making difficult.

Real estate development financing places strong demands on project timeframes. Successful real estate development depends on market timing and compressing schedules to minimize the “carrying costs” of financing and the risk that market demand will be satisfied by other competing projects. A long cleanup process can severely impact the financial feasibility and the risk profile of a redevelopment project.

Existing Policy Tools	Continuing Challenges
<p><i>Voluntary Cleanup Program</i>—In the VCP, parties set the level of Ecology oversight of cleanup and remediation. A project must meet the same cleanup standards, but parties have more control over the schedule.</p>	<p><i>Site Manger Staff Capacity</i>—As of 2011, approximately 55 full-time Toxics Cleanup Program employees are dedicated to management of formal sites and leaking underground storage tank cleanups. Another 12 full-time employee equivalents are dedicated to the VCP. Approximately 90% of new sites are currently entering the VCP. The amount of time staff can dedicate to projects is a significant factor in the duration of the cleanup process.</p> <p><i>Backlog of Sites</i>—Approximately 150 contaminated sites have completed the MTCA cleanup process in each of the last few years. However, 300 new sites are identified in typical years, so each year the backlog grows by 150 contaminated sites. While great progress has been made, there are still over 5,000 reported contaminated sites in the state that have not completed cleanup, and that number is increasing rather than decreasing each year.</p>



## 2.1.5 Impacts of Area-Wide Contamination

MTCA defines a “site” based on the extent of contamination, regardless of property boundaries. In many cases, groundwater and soil contamination can migrate across a wide area and impact numerous properties. This creates a two-fold challenge:

1. Redevelopment projects can be hindered by off-property contamination, and
2. An area-wide approach to characterizing and remediating contamination may be needed to effectively and efficiently address risks.

Ecology has established special programs to address regional environmental concerns such as soil contamination from smelter plumes. For this study, the area-wide contamination challenge is more specifically focused on contamination on a community or neighborhood scale.

<b>Existing Policy Tools</b>	<b>Continuing Challenges</b>
<p><i>Pilot Projects</i>—Bellingham Bay, Montesano, the Tacoma Smelter Plume and other pilot projects have developed models for taking area-wide approaches to contamination.</p> <p><i>Property-Specific NFAs</i>—Ecology has developed a policy to provide an NFA for a specific property to allow redevelopment within a larger contaminated site.</p> <p><i>Area-Wide Groundwater Grants</i>—This grant program has been established but never used because of onerous repayment requirements.</p>	<p><i>Multiple Contaminated Sites in a Community</i>—Contaminated properties are often clustered based on historical industrial uses. This can contribute to blighted neighborhoods. The challenge of cleanup and redevelopment of these areas may be more effectively approached on a neighborhood scale rather than as an individual property or site.</p> <p><i>Community-Wide Contamination Plumes</i>—Broad areas with groundwater plumes or soil contamination from air deposition present challenges for source identification and control. Approaching these areas on a site-by-site basis can be inefficient or ineffective.</p>




## 2.2 Brownfields in the Real Estate Market

Most brownfield projects are driven by a property transaction and real estate development opportunity. This is a fundamentally different driver for cleanup than regulatory enforcement. From the financial perspective of the real estate market, brownfields are at a disadvantage because of the upfront costs associated with cleanup, the time required to move a site through the regulatory process, and the uncertainty associated with environmental liability. Real estate is an investment and, like all financial investments, is focused on returns and risk. Developers want to move quickly to clean up the property to realize the value of redevelopment. This approach is fundamentally different than when a recalcitrant liable party only bears costs with no balancing economic benefit from redevelopment.

In practice, whether or not brownfield sites are cleaned and reused usually comes down to financial feasibility—whether the potential revenues are greater than the costs. This is particularly challenging with small brownfield properties, such as former gas stations, where the limited size and revenue-generating potential may not justify the costs of environmental cleanup.

Brownfield properties fall into three general categories of redevelopment potential. Table 2-1 illustrates these categories when comparing potential liability costs (cost of cleanup) and the ultimate redevelopment value.

**Table 2-1. Stratification of Brownfield Property Value<sup>2</sup>**

Category	Description	Result
	Market value of redeveloped property far exceeds costs.	Private real estate market likely to complete cleanup and redevelopment.
	Redevelopment revenues close to covering development and environmental costs.	Project not feasible for private market to undertake. Some public investment can make it viable.
	Environmental liability far greater than property value.	Difficult to redevelop. Requires significant public investment or change in market conditions.

In the real estate market, investors and developers evaluate multiple properties in a process to select a property that best meets their goals. Brownfield properties compete with other developed properties that may not have environmental constraints, as well as with undeveloped properties in

<sup>2</sup> Diagram adapted from National Brownfields Association.

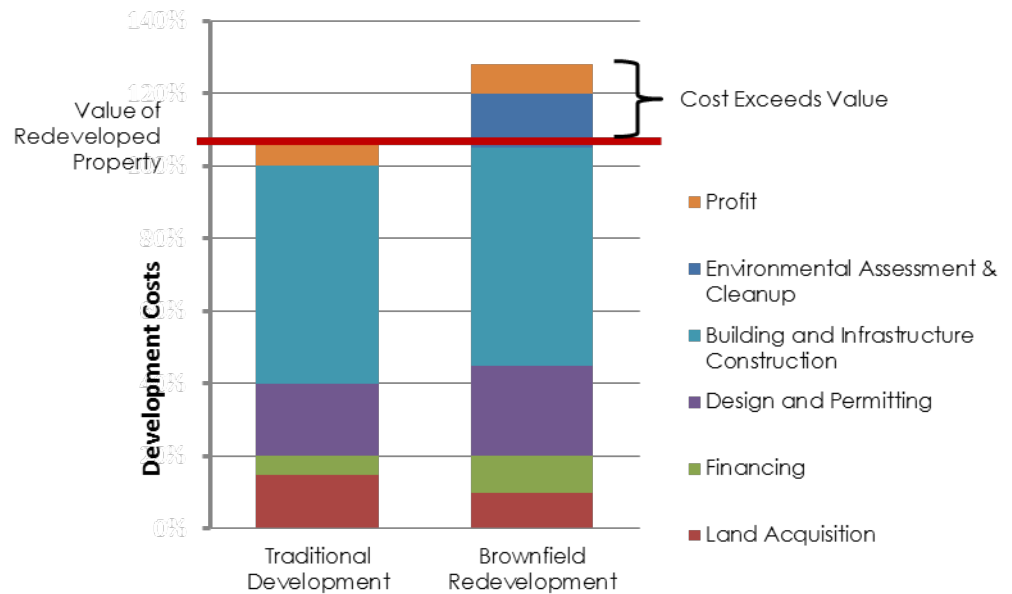
suburban and rural locations. In this competition, brownfields start off at a disadvantage for a number of reasons, which are summarized in Table 2-2.

**Table 2-2. Comparison of Brownfield and Undeveloped Properties from a Development Perspective**

Brownfield Properties	Undeveloped Properties
<ul style="list-style-type: none"> <li>• Complicated, often uncertain regulatory process</li> <li>• Technical challenges</li> <li>• Slow regulatory process</li> <li>• High level of risk</li> <li>• High upfront site development costs</li> </ul>	<ul style="list-style-type: none"> <li>• Well-understood permitting process</li> <li>• Fewer technical challenges</li> <li>• Faster regulatory process</li> <li>• Lower level of risk</li> <li>• Lower site development costs</li> </ul>

It is important to recognize that, from a real estate development perspective, the cleanup costs and environmental risk are two factors in a larger financial pro forma and feasibility evaluation that includes site planning, permitting, construction administration, contracting, financing, securing leaseholders and property sales, and other factors. The cleanup is a critical component but is only one piece in a larger effort that requires coordination within a demanding timeframe to be successful (see Figure 2-1).

**Figure 2-1. Financial Comparison of Brownfields and Traditional Development Properties**



# 3 BROWNFIELD POLICY RECOMMENDATIONS

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Brownfield redevelopment policy fits into the broader context of growth management and environmental protection to promote vibrant cities, productive rural areas, and natural resource conservation. There are regional scale factors that drive site selection development decisions, such as tax structures, infrastructure investments, land use policies, and the quality of public services, especially education. The issues of transportation and infrastructure investments, environmental review and permitting, and coordinated regional land use planning are beyond the scope of this study but are critical to keep in mind in order to develop successful public policy.

In the end, the policy goal should be to encourage urban revitalization and brownfield development.

Washington State has established a number of important policies and programs to address these challenges. The most notable are:

- GMA—requires coordinated planning and focuses development in designated urban areas.
- Remedial Action Grant program—awarded over \$345 million to local governments to conduct cleanup actions from 1988-2009.
- VCP—provides an expedited regulatory process for relatively simple cleanup sites. Approximately 24 percent of all cleanups have historically gone through the VCP, and approximately 90 percent of all new sites enter this pathway.

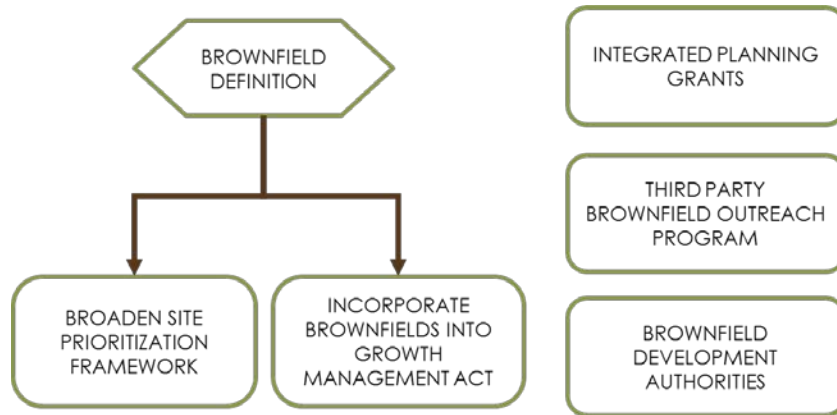
The following recommendations build on the successful policies currently in place and are targeted to address weaknesses and challenges that remain. The policies are presented in five categories based on addressing the challenges discussed in Section 2. The policy recommendations are described briefly below and in more detail in the appendix.

## 3.1 Leveraging Redevelopment to Achieve Cleanup

The policy tools in this section focus on achieving cleanup by capitalizing on the financial resources and forward momentum generated by development projects (see Figure 3-1). Real estate transactions and development projects

provide a tremendous opportunity to make the inherent value of property a liquid asset that can be applied to conducting remedial actions. To capture this opportunity, it must be recognized in policy, and agencies need appropriate tools and the ability to be responsive.

**Figure 3-1. Policy Tools That Link Cleanup to Redevelopment**



### 3.1.1 Codify Brownfields Definition

**Challenge**—The term brownfield is not defined in Washington State law or administrative rule. Cleanup and redevelopment of brownfields requires a multi-faceted approach to address environmental, economic, and community issues. Without a codified definition of brownfields, the land use and cleanup laws, state transportation, housing, funding and other programs do not have a common understanding to coordinate responses that move these sites forward. It is fundamentally important for state elected officials and agency staff to have a single working definition of brownfields as a foundation for articulating the unique aspects of properties and developing focused policy.

**Solution**—The working definition for a brownfield developed by Ecology staff is “abandoned, underutilized, or vacant real property where environmental, economic, and social reuse objectives are hindered by environmental contamination.” This definition expands on the U.S. Environmental Protection Agency (USEPA) definition by recognizing the social as well as environmental and economic aspects of the brownfield problem. The working definition acknowledges that the public interest in brownfields is not limited just to cleaning up contamination and resolving environmental liability. In addition to cleanup, the definition frames brownfields in the context of reuse potential and forging partnerships.

**Expected Outcomes**—Washington State’s regulatory and funding programs have clear authority to develop specialized programs designed to meet the unique needs of brownfield projects.

### **Advantages**

- Supports many of the other brownfield policy recommendations.
- Creates a common vocabulary to support an approach that leverages the financial resources and energy of redevelopment to achieve cleanup.
- Articulates the state’s policy on the opportunities of property redevelopment to achieve sustainable development goals.
- Does not create any financial or administrative obligations that will negatively impact the state.
- Signals that Washington State is a leader in brownfield redevelopment policy, which will attract developers nationwide.

### **Disadvantages**

- Requires a shift in attitude and culture in state agencies, including environmental, economic, transportation, and others that may be difficult for some to adopt.
- No matter how precisely formulated, any definition may lead to abuse of its intent.
- May create a perception that cleanup standards do not apply equally to brownfield and traditional MTCA sites.

## **3.1.2 Strengthen Brownfield Connection to Growth Management Act**

**Challenge**—Brownfield redevelopment addresses all the substantive goals of the GMA, but the statute does not explicitly recognize the problem of brownfields. This omission results in a missed opportunity for local governments to fully utilize brownfield redevelopment as a tool to promote urban infill development and economic revitalization.

**Solution**—The policy recommendation is to revise GMA to include brownfields as part of the goal statements and to add required or optional components to comprehensive plans that address brownfield properties in the buildable land analysis, the land use element, and the economic element of comprehensive plans.

GMA should be amended to authorize local governments to establish an inventory of brownfield properties. Listing a property on the brownfield inventory could be required or voluntary. If required, then all properties meeting the brownfield definition would be included. A voluntary inventory would give eligible property owners the option of being listed or not. A voluntary approach is recommended for local governments in order to make the effort more acceptable to property owners. A number of incentives could be provided to properties on the brownfield inventory to both overcome property owner reluctance and add market value to promote cleanup and redevelopment. Incentives that could be applied to brownfield properties include:

- Targeting infrastructure investment and economic development efforts to neighborhoods impacted by brownfields
- Providing regulatory flexibility through local zoning for properties identified in a brownfield inventory
- Allowing property tax abatements for redevelopment projects on properties identified in a brownfield inventory

It is important to emphasize that incorporating the brownfield inventory in the comprehensive planning process lays the foundation for special treatment of these properties as a group, based on public benefit derived from addressing community-wide economic impacts and threats to human health and the environment. These inventories could be funded through Integrated Planning Grants (see Section 3.1.3).

**Expected Outcomes**—Local governments research and understand the impact of brownfields in their communities and develop community-based plans that leverage cleanup to promote urban infill and economic development.

#### **Advantages**

- Supports GMA goals of encouraging development in urban areas; reducing sprawl; promoting economic development within the capacities of the state's natural resources, public services, and public facilities; and protecting the environment.
- Empowers local governments to promote brownfield redevelopment as a key element of community and economic planning.
- Provides tools that add value to properties identified as brownfields, which may offset owner concerns about documenting potential contamination.

- Enhances market value of brownfield properties, making them more competitive with greenfield properties.
- Improves knowledge of scale and distribution of brownfield properties in the state through local inventories.

### **Disadvantages**

- May create perception of greater obligations on local governments.
- Potentially creates reluctance and anxiety for owners of properties identified in a local inventory as contaminated.
- May expose local governments to potential protest and litigation from private property owners identified in brownfield inventories unless listing is optional and voluntary.

### 3.1.3 Integrated Planning Grants

Integrated Planning Grants are a pilot initiative that provides up to \$200,000, with no match requirement, to local governments to conduct due diligence and create a strategy for cleanup and redevelopment of contaminated sites before investing local funds. The grants provide an opportunity to plan for adaptive reuse of a property that integrates economic development, environmental cleanup and restoration, and community benefit. Public involvement is a key component of all of these grant-funded activities. Integrated Planning Grants are an element of the Remedial Action Grant program, which distributes funds from the Local Toxics Control Account to local governments to conduct cleanup actions. Priority and preference are given to local governments that have not previously received a Remedial Action Grant or that meet the disadvantaged communities' criteria.

**Challenge**—Local governments often lack resources to perform adequate due diligence to acquire or redevelop brownfields in their communities. Ecology established the Integrated Planning Grant program to provide funding to conduct the necessary environmental, land use, and economic planning to position local governments to lead brownfield projects. This program is currently only a pilot initiative.

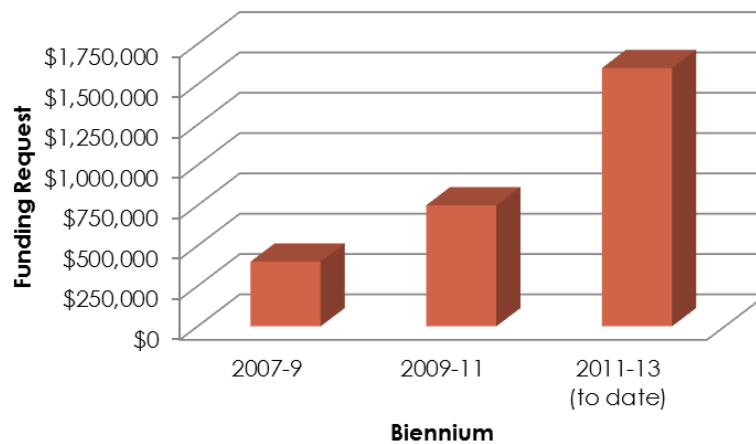
**Solution**—The policy recommendation is to make this successful pilot program permanent and fund it at a level to meet demand. The name of the program should also be changed to “Brownfield Integrated Planning Grant” to emphasize the purpose of the grant. The grants provide an opportunity to plan for adaptive reuse of a property, integrating economic development, environmental cleanup and restoration, and community benefit. These grants are funded through the Model Toxics Control Account and represent an



innovative use of that resource, reflecting the importance of redevelopment planning to leverage environmental cleanup.

**Expected Outcomes**—Communities across the state position contaminated properties for redevelopment through the leadership of local governments. The number of local governments applying for Integrated Planning Grants has steadily increased since these grants were initiated (see Figure 3-2). As of June 2011, eight communities have submitted applications for a total funding request of \$1.6 million this year alone. These numbers are likely to continue to grow as the program matures.

**Figure 3-2. Demand for Integrated Planning Grants**



### Advantages

- Creates the opportunity for more local governments to play leadership roles in redevelopment of abandoned, underutilized, and contaminated properties while minimizing financial risk to local communities.
- Provides resources to smaller communities that otherwise would lack the capacity to take on important cleanup and redevelopment projects.
- Meets the growing demand for this type of funding.
- Creates greater opportunity for partnerships among private property owners and local, state, and federal government
- Extends Ecology's programs and services beyond meeting regulatory requirements.

## Disadvantages

- Creates greater demands and competition for Remedial Action Grant funds.
- Not applicable to brownfield redevelopment projects led by private parties.

### 3.1.4 Brownfield Development Authorities

**Challenge**—In many communities, there are multiple brownfields in one neighborhood, several small sites scattered around town, or one large site that has broad impact. Often, these sites are not cleaned up or redeveloped for many years because:

- Each site may be too small to justify the resources required to achieve remediation.
- The collection of localized sites has mixed pollution caused by a variety of uses and users, thereby complicating liability allocation and precluding any individual responsible party from taking action.
- The area may lack infrastructure and appropriate land use plans or development regulations to support a potential reuse.
- There are often recalcitrant property owners who may avoid cleanup liabilities or who are otherwise unengaged in redevelopment planning.

**Solution**—An area-wide approach to planning for redevelopment can effectively address these multiple site situations. Brownfield development authorities (BDAs) are envisioned as public corporations with the mission of remediating and redeveloping contaminated properties in a designated area. The BDA concept builds on existing successful models, including public development authorities (PDAs), regional fire authorities, and industrial development districts (IDDs), as well as the Community Development Act and the Interlocal Cooperation Act. The BDA could be implemented as an amendment to one of these existing statutes or created under a new law.

BDAs would have the same powers as existing PDAs and IDD, including the ability to establish special assessment districts, eminent domain, and the ability to convey private lands and cancel back taxes. While BDAs would be closely aligned with and could evolve from PDAs and IDD, they could be granted at least four legal authorities that other development authorities do not have:

- A liability exemption for actions related to acquiring and managing contaminated property.
- The ability to access privately held brownfields for the purpose of performing an environmental site investigation.
- A statutory right to extend cleanup schedules adopted in consent decrees as needed to align the cleanup schedule with the availability of MTCA grant funds for cleanup of publicly owned sites.
- Sites in BDA areas would automatically qualify for the tax incentives recommended in Section 3.2.1.

Additionally, BDA areas could be the initial focus (and trial run) areas for progressive policies that could later be implemented statewide. For example, enhanced liability protections (see Section 3.3.2) and/or licensed site remediation professional (LSRP) programs (see Section 3.4.1) could be piloted in BDA areas.

The work of the BDA is organized around five major steps:

1. Designate a redevelopment district, based on findings of blight and contamination.
2. Establish goals for the redevelopment district and craft a plan for the structure and governance of the BDA.
3. Draft a redevelopment plan for the district through an open public process that engages property owners, local government, and other stakeholders. The redevelopment plan should incorporate analysis of environmental, economic, and community factors.
4. Inventory, prioritize, and conduct environmental assessments on brownfield properties in the district.
5. Invest in infrastructure improvements, local land use regulatory updates, and marketing efforts to implement the community and economic development plan.

**Expected Outcomes**—BDAs will be established in a number of communities across the state. With a set of unique development tools, these new entities aggressively pursue the redevelopment of contaminated sites and revitalization of blighted neighborhoods.

## Advantages

- Provides a mechanism for local governments to cost-effectively manage the remediation and redevelopment of multiple sites.
- Provides liability protections for local governments and innocent purchasers to allow them to take ownership of brownfields with minimal risk exposure.
- Provides a mechanism to protect the balance sheet of local governments by eliminating liabilities that would otherwise fall under Government Accounting Standards Board (GASB) Statement Number 49, Accounting and Financial Reporting for Pollution Remediation Obligations.
- Promotes public-private partnerships.
- Creates an open public process to engage local communities in planning for brownfield cleanup and revitalization of their own neighborhoods.

## Disadvantages

- Creates a new local governmental authority that may be perceived as an additional layer of bureaucracy.
- May generate protest from property owners in the brownfield redevelopment district whose properties are identified as potentially contaminated.

### 3.1.5 Broaden Site Prioritization Framework

Washington State takes a “worst first” approach to cleanup of contaminated sites. This approach has been very effective in addressing the contaminated sites with the greatest threats to human health and the environment. Identified sites are ranked based on potential risk (Revised Code of Washington [RCW] 70.105D.030 (2)(b) and (3); Washington Administrative Code [WAC] 173-340-330). The hazard ranking system guides the allocation of limited Ecology and Attorney General’s Office resources; staff time and resources are prioritized based primarily on these hazard rankings.

**Challenge**—Application of the hazard ranking as the primary or sole criterion for allocating resources fails to recognize that cleanup projects are frequently driven by economic or community forces. Brownfield projects can face a challenge getting necessary Ecology or Attorney General’s Office staff committed if the site has a low hazard ranking, even if it has great potential

economic and community benefits. There is anecdotal evidence of developers requesting access to the liability protections of the formal cleanup process and being turned away because the site is not a high enough environmental risk. Without support from the agency, prospective developers may be unable to obtain financing and will walk away from a brownfield, leaving the site in its current blighted condition. This too often results in missed opportunities to leverage market forces to achieve cleanup goals, as brownfield redevelopment deals can fall apart because of administrative delays or unresponsiveness. Current guidance does provide that Ecology can consider other factors beyond hazard ranking, such as the availability of funds, readiness to proceed, cost of cleanup, public concern, and cooperation of the responsible parties.

**Solution**—In addition to the hazard ranking, sites could be ranked for economic and community benefit, or the existing additional prioritization criteria could be given greater consideration. The purpose of these changes would not be to lower the priority of the most contaminated sites, but to provide Ecology and the Attorney General’s Office with clearer direction to dedicate resources to sites with great economic and community benefit when opportunities arise.

**Expected Outcomes**—The cultural change represented by this policy would encourage Ecology to be more sensitive to real estate market opportunities and timing to leverage cleanup. It would generate efficiencies by focusing more resources on projects with proponents that are highly motivated and ready to proceed.

#### **Advantages**

- Capitalizes on momentum and energy of redevelopment to accomplish cleanups that might not otherwise take place.
- Supports the Toxics Cleanup Program’s ongoing transition to a third-generation brownfield model.

#### **Disadvantages**

- Increases competition for resources among projects.
- Potentially creates the perception that the regulatory agency is putting business interests ahead of public health and the environment

### 3.1.6 Third-Party Brownfield Outreach Program

Ecology currently staffs a brownfield group under the Toxics Cleanup Program. The brownfield group helps public and private parties navigate the cleanup process, develop funding strategies, and connect with technical resources. A third-party brownfield organization is differentiated from that group primarily by the fact that it would not be part of a regulatory agency.

**Challenge**—Landowners and developers are often unaware of resources available to support brownfield redevelopment and are typically wary of speaking openly with regulatory agencies for fear of liability.

**Solution**—Nonprofit organizations, local governments, and academic institutions can play a role in connecting private or public landowners with resources and helping them initiate cleanup and redevelopment projects. King County and the nonprofit Environmental Coalition of South Seattle already have such a third-party outreach program. The policy recommendation is to establish a third-party brownfield organization that can provide resources to different regions of the state. Ecology has conducted an analysis of the benefits of establishing such an organization through the Brownfield Outreach and Extension project conducted jointly with the Tacoma-Pierce County Health Department in 2010.

Third-party brownfield outreach organizations provide information and support to local communities and property owners. They typically act as liaisons between communities and the regulatory agencies and provide guidance to project proponents. They are different from professional consulting firms in that they do not provide technical services such as environmental analysis or legal support and do not assume any liability exposure.

One of the primary advantages of a third-party organization is that it provides a nonthreatening, low-cost or free source of information to owners of potentially contaminated property. Property owners are typically reluctant to engage a regulatory agency for fear of bringing attention to a potential legal or financial liability. A third-party organization can assist owners and communities in understanding the cleanup and redevelopment process, how to manage risk, and how to access resources. By providing these services at low or no cost, they also remove the barrier represented by the cost of hiring consultants or attorneys.

**Expected Outcomes**—The experience in other states and in King County is that these third-party brownfield programs assist private parties and local governments in getting projects started and leveraging federal and state grants. For example, the Brownfield Assistance Center at West Virginia University and Marshall University helped local communities obtain over \$4

million in USEPA grants in its first five years of operation (West Virginia Brownfield Assistance Center, 2010). They are particularly effective in providing resources to small towns and rural areas. The King County Brownfield Program supported 11 Phase I environmental site assessments, 16 Phase II assessments, and 5 cleanups from 2004 through 2011.

### **Advantages**

- Provides expertise to communities and private landowners as they take the first steps.
- Provides justification for public and private owners to allocate resources to transactional costs when considering a brownfield development project.
- Expands capacity for education and training.
- Provides skills and resources to leverage state funds with federal and private foundation grants.

### **Disadvantages**

- Would likely require state funding and staff resources to set up and operate the third-party organization.

## 3.2 Improving Financial Incentives

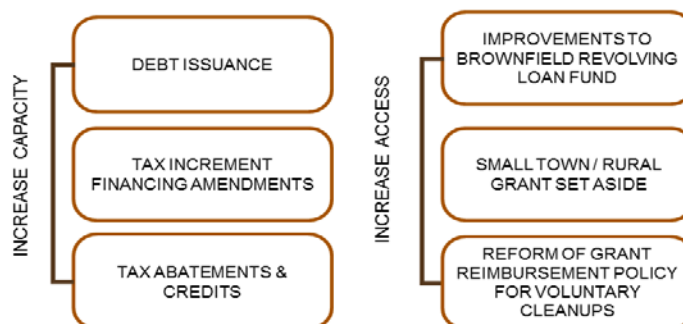
The group of policy tools in this section addresses the costs associated with cleanup of a brownfield property (see Figure 3-3). Washington State has one of the most robust public funds in the country to support contaminated site cleanup. MTCA established a tax on the first possession of hazardous substances imported into the state, including petroleum. The revenue from this tax supports the State Toxics Control Account and the Local Toxics Control Account. The state account funds state agency programs focused on waste management, pollution prevention, and cleanup. The local account funds the Remedial Action Grant program that provides funds for local agencies' actions, focused similarly on waste management, pollution prevention, and toxics cleanup.

### State of Remedial Action Grants

- Over the past 20 years over \$345 in Remedial Action Grants has been awarded, matching \$290 million in local government funds to undertake 242 cleanups.
- Funding for Remedial Action Grants in recent years has exceeded \$50 million per biennium, driven by the rising price of oil.
- The ten-year financing plan indicates that demand is three times greater than the projected budget for Remedial Action Grants.
- In average years, approximately 50% of the Local Toxics Control Account is dedicated to Remedial Action Grants.
- The forecasted Remedial Action Grant requests from King County, the City of Seattle, and the Port of Seattle for the Duwamish River cleanup are projected to be \$670 million in the next ten years. This exceeds the projected program budget and represents 73% of all forecasted Remedial Action Grant demand.

While the MTCA fund has been very successful in supporting cleanup of contaminated sites in the state, there are a number of improvements that could be made to this program and others to more effectively address the challenging costs of cleanup.

**Figure 3-3. Policy Recommendations for Improving Financial Incentives**





### 3.2.1 Tax Incentives

From 1998 to 2003, Washington State provided a sales and use tax exemption and a reduced business and occupation (B&O) tax rate for environmental remedial actions. The exemption ended in 2003, based on a sunset provision in the legislation.

**Challenge**—There are few financial incentives for private investment in brownfield cleanup in Washington State.

**Solution**—The state should consider two linked proposals that would offer property tax relief and a sales tax exemption targeted to priority brownfield areas and sites. This would create a state-local partnership to incent brownfields redevelopment, as follows:

1. **Brownfields Property Tax Abatement Program**—Authorize local governments to abate incremental increases in property taxes related to making real property improvements on brownfield sites. The abatements would be set for a limited term such as eight or ten years. Local governments would designate areas or specific sites that are eligible for the tax abatement.
2. **Environmental Remediation Tax Exemption**—Reinstate a modified version of the previous sales tax exemption. The tax incentive could be limited to properties that have been identified by local government brownfield inventories (see Section 3.1.2) or to sites in BDA districts (see Section 3.1.4). Improvements to the previous tax exemption could include:
  - Expand the definition of activities that are tax exempt to include demolition and site preparation to increase the value of the incentive.
  - Exclude Phase I environmental site assessments from tax exempt activities, since they are routine for property transactions and not specific to contaminated sites.
  - Eliminate the B&O tax reduction, since it appears to have had little impact in the previous program.

Tax incentives can encourage private development investment in cleanup and redevelopment. Ecology and the Department of Revenue analysis of the previous tax incentive found that it did not appear to increase the number of cleanups completed, but it likely increased the pace of some cleanups, stretched public and private funds, and facilitated organizations with limited resources to undertake projects. The current economic conditions and a

more focused application could improve the effectiveness of this tool. The current real estate market is far reduced from the activity of the late 1990s and early 2000s, so a renewed and reformulated tax exemption may now have a much larger positive impact on the financial feasibility of a brownfield project.

**Expected Outcomes**—Tax incentives provide a financial tool to support private investment in brownfield projects. Between 100 and 250 sites per year used the previous tax exemption (Ecology, 2002). A more focused tax incentive that is appropriately marketed will likely be used by more projects. Ecology’s analysis did not see a change in the number of remedial actions being conducted during or after the previous tax incentive.

### **Advantages**

- Provides a financial incentive for private investment in brownfields during a down economic cycle.
- Supports cleanup without drawing down the MTCA fund, as it provides an additional source of earned revenues.
- If properly crafted, implementation of tax incentives requires few state staff resources.
- Stretches Remedial Action Grant dollars by reducing the costs of cleanup. Based on Ecology’s analysis of the previous tax incentive, the agency would save an estimated \$6 million per year in state and local sales taxes on contracted cleanup and \$2.7 million per year in Remedial Action Grant-funded cleanup (Ecology, 2007).

### **Disadvantages**

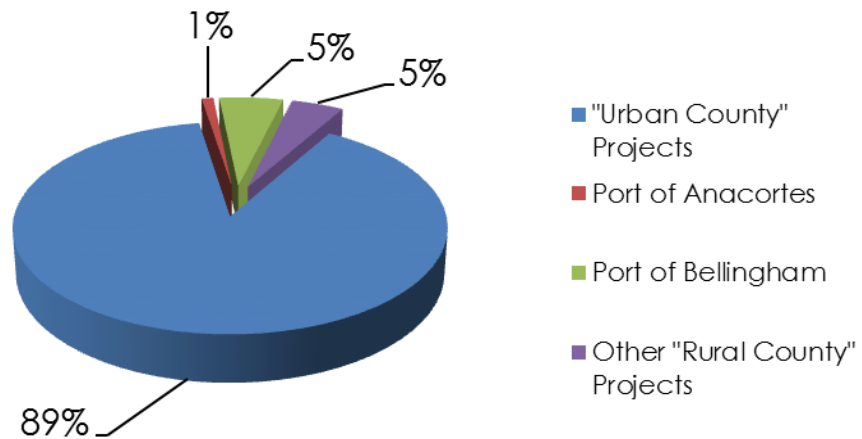
- Potential impact to state tax revenues; however, this is likely to be minor and offset by significant increases in the long term. In 2005, the Department of Revenue estimated an annual loss of revenue to the state general fund of \$3.5 million for the previous sales and use tax exemption and \$3 million for the B&O tax reduction (Ecology, 2007)
- Difficult to tie the tax exemption to the benefit of potential long-term tax revenue.

### 3.2.2 Small Town/Rural Grant Set-Aside

**Challenge**—Many rural areas and townships confront the challenge of brownfields without adequate administrative and financial resources to conduct the necessary studies or hire appropriate consultants to engage in cleanup and redevelopment. And yet, in many small towns, brownfields cause disproportionate blight, often hindering a town’s overall ability to attract economic activities. Rural counties or small towns, often in depressed economic areas, face the dilemma of being unable to generate a return on investment to attract developers or lenders, yet needing to clean up and revitalize the sites. Because of their limited resources, it can be difficult for small communities to effectively compete for Remedial Action Grants.

Approximately 29 percent of Remedial Action Grants were awarded to communities in rural counties<sup>3</sup> from 2000 to 2009. Large-scale waterfront cleanup projects in Anacortes and Bellingham represent a large portion of those grants. If those two communities are excluded, the portion of grants awarded to rural communities drops to approximately 10 percent. Forecasts for the next ten years indicate that the share to rural counties will decline to 5 percent of all Remedial Action Grants (see Figure 3-4).

**Figure 3-4. Grant Distribution to Rural Counties Forecasted for 2011-2021**



<sup>3</sup> Rural counties are defined by Washington State as those with a population density of fewer than 100 persons per square mile or an area smaller than 225 square miles, as determined by the Office of Financial Management (RCW 43.160.020). Based on these criteria, all the counties in Washington except for Clark, King, Kitsap, Pierce, Snohomish, Spokane, and Thurston are considered rural.

**Solution**—Designating a minimum percentage or amount of grant funds for small towns and rural areas would both expand resources for those communities and create a greater emphasis on brownfield outreach to those areas.

A rural county set-aside could be established by dedicating a minimum amount of funds for rural counties that does not change with fluctuations in the Local Toxics Control Account (example: at least \$5 million in rural grants each biennium). Ecology should consider eligibility criteria that exclude large cities in counties designated as rural to ensure that these funds reach the intended communities.

**Expected Outcomes**—More communities in rural counties will take on cleanup of historical industrial and commercial properties. Based on the Remedial Action Grant 10 Year Financing Plan, only seven percent of funds will be allocated outside the Puget Sound region. The rural grant set-aside would better balance the distribution of funds across the state.

#### **Advantages**

- Demonstrates Washington State’s commitment to the economic vitality of small communities and rural counties.
- Enhances the equitable distribution of Remedial Action Grants across the state.

#### **Disadvantages**

- Places constraints on the allocation of Remedial Action Grant funds.

### 3.2.3 Grant Reimbursement for Voluntary Cleanups

**Challenge**—Local governments that undertake cleanup of a contaminated site through a voluntary action (not under an agreed order or consent decree) are eligible to receive Independent Remedial Action Grants from Washington State. These grants typically provide reimbursement for 50 percent of eligible expenses (up to \$400,000) related to the cleanup. However, the local government can apply for the grant only after the cleanup has been completed and has received approval from Ecology through issuance of an NFA.

It can be a challenge for local jurisdictions to carry the costs over the entire period of investigation and cleanup, which has been estimated at four years under the VCP (Means, 2008). This timeframe can extend even further if groundwater monitoring is required before an NFA can be issued.

**Solution**—Changes to the current Independent Remedial Action Grant guidelines could allow for local governments to receive reimbursement payments on a monthly basis during the cleanup process. This would be the same reimbursement procedure currently in place for governments that undertake cleanup under an agreed order or consent decree and receive an Oversight Remedial Action Grant. Policy changes could include:

- Eligibility Requirement (WAC 173-322-080(2))—change the requirement that the applicant must have completed remedial action to state that the applicant must enter the VCP or have developed a cleanup action plan for a contaminated property. Add a requirement that the local government provide documentation of commitment by elected officials to complete the cleanup action. Documentation could include a council resolution or adoption of an annual budget that sets aside funds for the cleanup.
- Application Process (WAC 173-322-080(3))—change the requirement of award of an NFA to a requirement to provide proof of enrollment in the VCP or of development of a cleanup action plan.

These revised requirements would provide Washington State with assurance that the local government is committed to completing the cleanup and provides a mechanism for Ecology to review plans to ensure that they meet MTCA requirements and guidelines.

**Expected Outcomes**—This change in grant reimbursement policy will make local governments more willing to use the VCP, which is a more expedient cleanup process and requires fewer resources from the state. Independent Remediation Action Grants represented less than 2 percent of the total Remedial Action Grant funds awarded from 2005 to 2009. This number is likely to double or more than double with this policy reform.

#### **Advantages**

- Provides resources in a timely manner to support local governments that are voluntarily taking on the risk of cleanup.
- Improves the leveraging potential to match USEPA brownfield cleanup grants that require local governments to conduct cleanup through a voluntary program.
- Would likely reduce the workload for Ecology’s formal site manager staff, because local governments taking on cleanup projects in the future would be more likely to use the VCP.

## Disadvantages

- Increases demands on Remedial Action Grant funds, which already exceeds forecasted capacity.

### 3.2.4 Improvements to Brownfield Revolving Loan Fund

The Brownfield Revolving Loan Fund (BRLF) is one of the few public funding source tools available to private parties in Washington State. For public projects, the BRLF also can provide critical matching funds for Remedial Action Grants, making full cleanup funding possible. It provides below-prime interest rate loans to finance direct cleanup actions, public participation, and environmental insurance. Loan interest rates currently range from 1 to 3 percent; the payback term is typically five years. The BRLF is capitalized by funds from the USEPA and is managed by the Washington State Department of Commerce in a coalition with Ecology, King County, and the cities of Seattle, Spokane, and Tacoma. The current capitalization of the BRLF is approximately \$2.2 million. Because of the structure of the BRLF, its capital can be increased only by federal, not state, funds.

**Challenge**—The BRLF can play a key role in financing brownfield cleanup, but it has been underutilized. The BRLF has issued six loans totaling approximately \$4.7 million in its ten-year history.

**Solution**—The Department of Commerce and Ecology should work with the USEPA to implement improvements to increase the use and effectiveness of the BRLF. The agencies are currently conducting a review of the program and have identified a number of issues that must be addressed to improve the BRLF. The primary recommendations include:

- Invest in promoting the BRLF to increase its market profile.
- Streamline the application process by developing a phased system more similar to private lending in which borrowers can provide financial and eligibility information to receive indication of approval for a credit limit before providing more documentation.

**Expected Outcomes**—Improvements to the BRLF will take greater advantage of and have broader impact from the use of this existing tool capitalized by federal funds.

## Advantages

- Improves the effectiveness of an existing program that is capitalized by federal funds.

- Provides financial tools to both private and public sectors.
- Builds a partnership between Ecology and the Department of Commerce that increases the capacity to support the cleanup and development of brownfields.

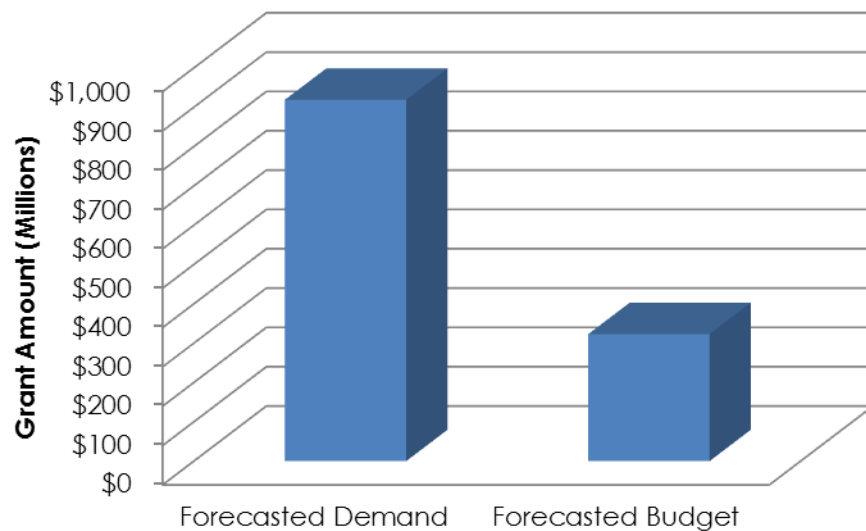
**Disadvantages**

- Requires reprioritization of state resources to improve the performance of the program.

**3.2.5 Debt Issuance**

**Challenge**—The demand for grant funding has significantly increased over the last decade, and current funding needs far exceed available grant funds. The Model Toxics Control Accounts Ten-Year Financing Plan estimated \$1.8 billion in total Remedial Action Grant cleanup needs through 2021. The state grant portion is estimated at \$925 million and the local match contribution is \$912 million. The legislature appropriated \$63 million for Remedial Action Grants in Ecology’s 2011-2013 biennial capital budget. The forecasted agency request increases to \$65 million for each biennium through 2021 (a total of \$323 million) in the Office of Financial Management’s ten-year capital budget system. This represents only 33 percent of the identified Remedial Action Grant funding needs (see Figure 3-5).

**Figure 3-5. Ten-Year Forecast of Demand and Budget for Remedial Action Grants**



It is important to note that demand for funding is driven largely by the Duwamish River Superfund cleanup, and that there are likely to be numerous

cleanup projects that have not yet been identified but that will seek grants in the future. The Duwamish River Superfund cleanup is expected to be the single most expensive cleanup in Washington State (except for the Hanford Nuclear Reservation). The current projected costs for the Duwamish cleanup range from \$300 million to \$1.2 billion.

**Solution**—A portion of the anticipated MTCA revenue could be used to support a stream of debt payments and the bond proceeds could fund identified remediation projects. The bond proceeds could be dedicated to a large project, such as the Duwamish River cleanup, or distributed to many projects. Washington State could issue the debt to provide additional capital funds to undertake more cleanup work directly, or local governments could use MTCA funds to backstop local governments' debt issuance and help support their financial participation in project funding. For example, MTCA could be a borrowing source for local governments undertaking brownfield tax increment financing (TIF) projects through redevelopment authorities.

With greater capitalization, MTCA also has the potential to support a broader range of activities. These could include funding to support local governments and BDAs in property acquisition and site preparation in addition to traditional cleanup costs. MTCA funds could also support local governments that would provide loans and loan guarantees to private parties undertaking cleanup and site preparation on brownfields.

Washington State has the authority to issue bonds backed by the MTCA revenues. That is, the state could borrow the funds up front and use the MTCA revenue streams to make debt service payments on the bonds. By securitizing these revenues, the state itself has the ability to fund larger projects over multiple years, or it can use the funds to provide grants or loans to local governments to assist them in paying for the costs of remediation.

In November 2008, Ecology submitted a proposal to the governor and legislature to establish a \$100 million bond to augment the Remedial Action Grant program. The proposal was not supported by the governor or legislature in the enacted 2009–2011 budget.

**Expected Outcomes**—Assuming that the state dedicates \$25 million per year in MTCA revenue for the next 25 years, it could generate bond proceeds of approximately \$350 million today by selling double-barreled general obligation bonds backed by a pledge of both the general obligation of the state and the full MTCA revenue stream. With this amount of money, the state would be able to commit revenues to jurisdictions, allowing them to begin working on projects at today's costs with the certainty that funds would be available to complete the project. Over time, inflation will make projects more expensive, likely at a rate that is higher than the rate of debt



service on bonds. The bond proceeds could help the state address the large financial demands of the Duwamish River cleanup in particular.

### **Advantages**

- Increases the capacity of state grant funding, particularly for large capital projects, such as the Duwamish River cleanup.
- Amortizes the cost of cleanups over a longer period of time than under the current grant funding model.
- Greater capital funds could provide flexibility to fund a broader array of brownfield activities, such as property acquisition and site preparation, with an expected result of accelerated cleanup and redevelopment.

### **Disadvantages**

- Contributes to the state's overall debt limit and displaces other potential borrowings.
- If used for larger projects, has the potential to displace funding for smaller sites.

## **3.2.6 Tax Increment Financing Amendments**

TIF permits municipalities to invest in public infrastructure to attract the growth needed to pay for the infrastructure as follows: A municipality issues bonds to finance public infrastructure intended to stimulate private development in a particular area, which in turn generates “incremental” property taxes to repay the bonds.

TIF is a widely used tool that encourages early investment of future value in an asset. In other words, it allows for investment in infrastructure today, based on a property's anticipated increase in value due to that investment in the asset's future. In a growing number of states, TIF is used to pay for environmental cleanups, much like infrastructure improvements, relying on the future increased property value to pay back the costs through the marginal tax increase. It could be used, as well, in the more traditional way of helping grantees cover infrastructure costs that are necessary to attract private investment and raise a property's market value, all of which encourages grantees to pursue cleanups.

In Washington State, traditional TIF tools have been found unconstitutional and efforts to amend the State Constitution to accommodate TIF have failed. In response to these legal difficulties, several modified forms of TIF have been developed in Washington. While less robust than traditional programs,

they could provide good incentives to encourage cleanup. These programs include Local Infrastructure Financing Tool, Local Revitalization Financing, and Chapter 39 Agreements between local governments.

**Challenge**—Existing TIF tools in Washington State have not been designed to maximize their applicability to brownfield projects.

**Solution**—While the continued efforts to implement “true” TIF in Washington State are beyond the scope of this study, specific improvements could be made to the existing tools to make them more robust and effective for facilitating cleanup and redevelopment of brownfields. These changes could include:

- Expanding the definition of eligible expenditures to include remediation and site preparation costs
- Reducing the base tax value that is frozen for the duration of the TIF period by the cost of cleanup
- Strengthening the “opt in and opt out” mechanisms for taxing authorities

**Expected Outcome**—The proposed policy changes build on existing TIF authorities and provide local financial resources to leverage private investment in brownfield projects.

#### **Advantages**

- Leverages a host of funding resources toward a single project.
- Generates local revenues to leverage state grants and loans.

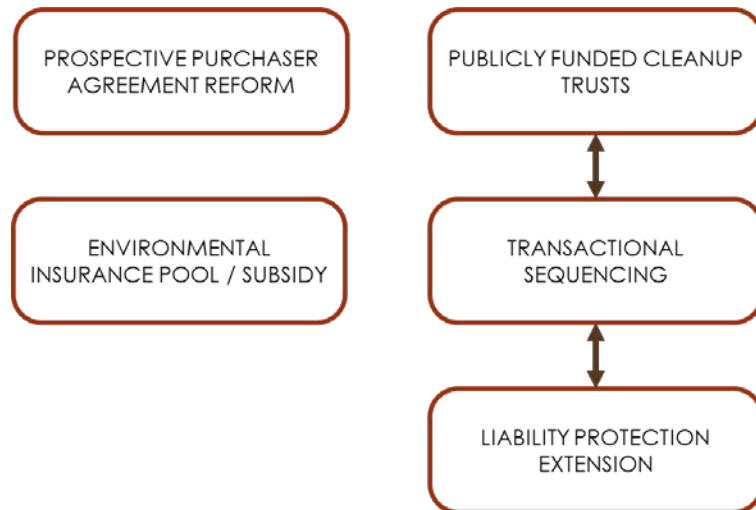
#### **Disadvantages**

- Inherent risk that incremental tax revenue increases will not be realized.
- Potential competition for scarce state resources; however, these resources are marginally generated, so existing resources are not compromised.

### 3.3 Managing Risk

Risk management is fundamental to all real estate development projects. The risk associated with environmental liability is an additional concern that makes redevelopment of a brownfield more challenging than that of a greenfield property. Early cleanup laws, including MTCA, focused on establishing a rigorous liability framework to ensure that parties responsible for contamination were required to pay for cleanup. Prospective developers often avoid potentially contaminated property because of the threat of unknown liability. The federal government and many states have adopted liability reforms over time and established other risk management tools for parties that are not responsible for contamination to reduce this barrier to brownfield redevelopment. The policy tools in this section describe multiple options to revise Washington State policy to assist innocent parties in managing environmental risk (see Figure 3-6).

**Figure 3-6. Policy Tools That Provide Liability Protection and Manage Risk**



### 3.3.1 Prospective Purchaser Agreement

Washington State provides a pathway for prospective purchasers to obtain a consent decree that outlines responsibilities and limits liability for contamination.

**Challenge**—Innocent parties take on strict, joint, and several liability if they knowingly acquire a contaminated property. The inherent risk and uncertainty of taking on this full environmental liability discourage potential developers from investing in brownfield properties. The prospective purchaser consent decree (PPCD) was established to address this challenge. However, the tool is rarely used. Entering into a consent decree requires significant legal resources, including involvement of both Ecology and Attorney General Office staff.

The state law and administrative rules for PPCDs list three primary factors to determine a project’s eligibility (RCW 70.105D.040(5)(a)):

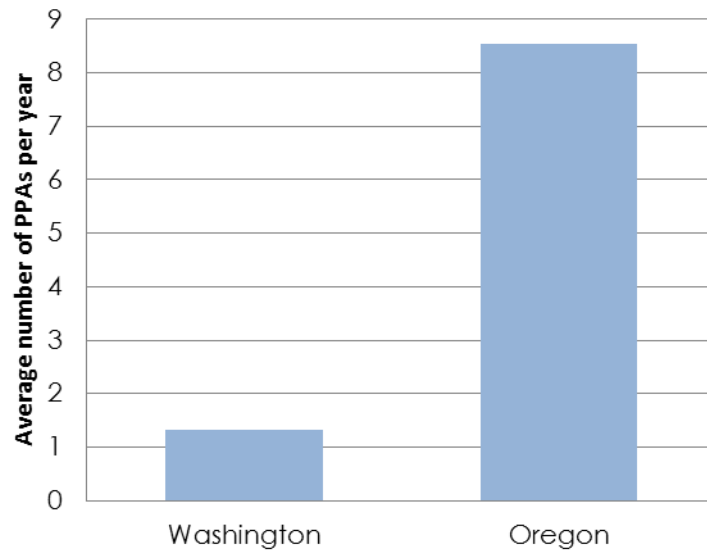
- Settlement will yield substantial new resources to facilitate cleanup.
- Settlement will expedite remedial action.
- Redevelopment of the property is not likely to contribute to existing contamination, interfere with conducting remedial actions, or increase public health risks.

Priority for use of PPCDs is given to projects that can demonstrate substantial public benefit (RCW 70.105D.040(5)(b)).

Throughout the history of the use of PPCDs in the state, there has been debate over the eligibility criteria and prioritization factors. The statute was revised to address these concerns in 1997, but challenges remain, including lack of clarity in defining “substantial new resources” or “substantial public benefit.” The decision whether to allow a party to enter into a PPCD is left to the discretion of Ecology and the Attorney General’s office.

The criteria for allowing a party to enter into a PPCD are interpreted to be so high that many applicants are denied. Washington State executed only 21 PPCDs from 1993 to 2010 (see Figure 3-7). By comparison, the State of Oregon negotiated 128 prospective purchaser agreements (PPAs) from 1995 to 2010.

**Figure 3-7. Prospective Purchaser Agreements Negotiated per Year in Washington and Oregon**



The current Washington State PPCD program is generally considered by environmental professionals to be prohibitively difficult to use. The concerns are based on four factors:

- The staff interprets the public benefit standard to be inordinately high.
- The regulatory culture does not support the timing and certainty needs of prospective developers.
- Limited availability of staff resources to process PPCDs results in projects being turned away from this option.
- Prioritization of which projects are allowed to proceed with a PPCD focuses too heavily on environmental risk and does not adequately account for economic and community benefits.

**Solution**—Three fundamental reforms are proposed to increase the effectiveness and use of PPAs in Washington:

1. Elevate PPCDs as a priority for the dedication of staff resources at Ecology and the Attorney General’s office. This will require increasing the funding for the Attorney General’s office to dedicate more staff time. Use MTCA funds and prepayment agreements with prospective purchasers to cover additional legal and technical expertise needed to meet the demands of the program. The policies currently in place for the PPCD regarding criteria for application

could remain, but the interpretation of those criteria should be made more favorable to applicants.

2. Amend the MTCA statute to make the eligibility criteria for entering into a PPCD objective rather than subjective. This would allow administrative appeal of Ecology and the Attorney General's decision regarding whether to allow a project to enter into a PPCD. Consider adding statutory language to clarify standards for "substantial new resources" and "substantial public benefit."
3. Create a Prospective Purchaser Agreed Order that can be negotiated as an administrative action by Ecology without review by the Attorney General's office. As with existing agreed orders that are available to potentially liable parties, this tool defines the scope and schedule of remedial actions and provides certainty that the state will not sue while the agreement is in effect if the party complies with its terms. The agreed order would not provide liability settlement with the state or protection from third-party contribution claims.

Additionally, the eligibility criteria that a party bring "substantial new resources to facilitate cleanup" should be interpreted in administrative rule or statute to include the financial resources of financial and state grants, along with in-kind services, to ensure that local governments, as well as private parties, can use this program.

**Expected Outcomes**—Based on Oregon's experience, Washington State could potentially see substantial increase in the use of PPAs. This tool will likely make investment in Washington more attractive to national developers and create a mechanism to capture the financial resources brought to real estate transactions to achieve cleanup.

### **Advantages**

- Improves a tool that leverages the financial resources generated in real estate transactions to accomplish cleanup.
- By defining the scope of liability, negates a major obstacle to completion of brownfield redevelopment projects by innocent purchasers.
- Prospective Purchaser Agreed Orders would allow more brownfield projects to be implemented in Washington State without increasing demands on the Attorney General's office.

## Disadvantages

- Increased use of PPCDs would create more demand on the Attorney General's office.

### Policy in the Real World Example

The use of a Prospective Purchaser Consent Decree has been the key to unlocking brownfield opportunities on a number of sites, including the Olympic Sculpture Park on the Seattle Waterfront, the Everett Housing Authority development near a former smelter, and the Seattle Seahawks practice facility in Renton. In these cases, the Prospective Purchaser Consent Decree was critical to success because it

- Reduced the risk of environmental liability
- Provided liability protection that was transferable to future owners
- Established an agreement on cost of cleanup and cleanup plan with Ecology before property acquisition
- Facilitated bank financing and private investment

## 3.3.2 Increased Liability Protections

**Challenge**—Liability issues are often ranked near the top of concerns when developers and other professionals are asked about the various impediments to brownfield redevelopment (U.S. Conference of Mayors, 1993–2020; Wernstedt et al., 2004, 2006). As stated in the previous section, the risk of assuming strict, joint, and several liability discourages potential developers of brownfield properties.

**Solution**—There are two fundamental approaches to limiting environmental liability that are common in other states but lacking in Washington State: innocent purchaser protections and liability release through the VCP. Washington State should consider the following options to encourage prospective private and public investment in brownfields by strengthening liability protections:

1. Local government liability exemption for the purposes of cleanup and redevelopment

The State of Washington could provide liability provisions that grant protections (including common law actions) for local government acquisition activities undertaken for the purpose of cleanup and redevelopment of blighted or abandoned property. MTCA currently provides a liability exemption for local governments if they acquire contaminated property through bankruptcy, tax delinquency, or abandonment, provided that they did not cause the contamination (RCW 70.105D.020(17)). The strengthened liability exemption should

provide coverage to quasi-public redevelopment entities, such as BDAs. Due care obligations to protect against imminent threat or unacceptable exposure could be included in the provision.

It is important to note that eligibility for Oversight Remedial Action Grants requires that a local government be a potentially liable party (173-322-070(2)). If a local government were exempt from liability, this criterion would require modification in the administrative rule in order to preserve eligibility for these grants.

## 2. Innocent purchaser protections

The state could create a self-administering liability exemption for public or private innocent purchasers, which requires a baseline environmental assessment as the primary criterion for gaining the protections. An alternative policy would be adoption of the federal Bona Fide Prospective Purchaser provisions.<sup>4</sup> These provide a weaker affirmative defense and are less demanding in the level of site assessment, but require more for “appropriate care” of the property. The state would need to establish clear appropriate care requirements for this defense to be useful and for it to stand up in court. In case of either exemption or defense, it is important to establish liability protections that will be available during the cleanup phase of development, not just after a completed response action.

## 3. Liability release for voluntary cleanups

It is noteworthy that 46 states provide some form of liability release through voluntary cleanups, but Washington State does not. At a minimum, this liability release should apply to all properties cleaned up to an unrestricted use standard and should confer protection from future contribution claims. The release should be fully transferable with the property, but should include reopeners as needed to address the potential for discovery of unknown contaminants.

Washington State should also consider providing a covenant not to sue within a strictly voluntary framework. The covenant not to sue should be available as extra protection for those needing a higher level of comfort during the cleanup process (relative to the self-administering liability defense) and should allow an innocent party to withdraw from the cleanup process if necessary for financial reasons. The covenant not to sue should confer contribution protection. The release should be fully transferable, and reopeners should be narrow.

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<sup>4</sup> Small Business Liability Relief and Brownfields Revitalization Act. Public Law Number 107-118, enacted in 2002.



These liability release provisions could be integrated into the existing VCP or incorporated in an LSRP program (described in Section 3.4.1).

#### Do Protections for Innocent Purchasers Release Liable Parties?

Washington State brownfield policy currently relies primarily on legal liability to drive cleanups. The concept of providing liability protections can appear to be in conflict with that approach. However, when protection is provided to an innocent prospective purchaser, the current liable parties are still legally bound to clean up the property.

By providing the protection, the state reduces the risk for a prospective purchaser, making it easier for that party to bring financial resources for both contamination cleanup and property redevelopment. If the prospective purchaser fails to address environmental issues in a timely manner, the state can still bring action against the former owners and operators, who now likely have greater financial resources because of the property transaction.

In short, the state loses nothing by protecting innocent purchasers, but has a great deal to gain by facilitating transactions of contaminated property.

**Expected Outcomes**—Public and private parties will be more willing to take ownership and clean up contaminated properties because liability will be better defined and reasonably limited.

#### **Advantages**

- Provides liability protections that encourage local governments to play a key role in acquiring blighted or abandoned properties, cleaning them up, and preparing the land for redevelopment.
- Providing greater liability protections to private parties doing the right thing by acquiring these properties and voluntarily conducting cleanup actions will reduce the risk involved in these projects and go a long way toward leveling the playing field between brownfields and other undeveloped properties.

#### **Disadvantages**

- May create potential for parties with liability protections to delay conducting remedial actions on properties, but this is unlikely because of investment in the real estate and Washington State's ability to enforce orders on the potentially liable parties.

- Requires a shift in agency focus from liability enforcement to redevelopment incentive as primary driver for cleanup.
- Assignment of liability was a fundamental issue in creation of the MTCA statute. Changes to the liability regime may be very difficult to make.
- The federal Bona Fide Prospective Purchaser protections have been difficult to uphold in court. This is primarily because of the difficulty in defining, then demonstrating, that a party meets long-term due care requirements.

#### Policy in the Real World Example

The City of Palouse, Washington, is considering acquisition of a former gas station that is an eyesore in the city's classic Main Street downtown. The former owner is bankrupt, so there is no viable liable party in the chain of title. The city would like to acquire the property, apply for grants to conduct the cleanup, and position it for private redevelopment.

The city currently has no liability for the site. The cost of cleanup is estimated to be approximately \$600,000. This represents over 50 percent of the city's annual operating budget. If the city acquired the property and its applications for grant funding were not successful or timely, the financial liability could be ruinous. The city is not eligible to receive a cleanup grant until it owns the property (and all the liability). The current policy framework puts the city at great risk.

Several recommended policies could make this project feasible for the city:

- Liability exemption for local governments when they acquire brownfields for the purpose of cleanup and redevelopment (see Section 3.3.2)
- Innocent purchaser liability protections (see Section 3.3.2)
- Prospective purchaser agreement (see Section 3.3.1)
- Transactional sequencing (see Section 3.3.4)

### 3.3.3 Comparison of Liability Protections

As the Palouse example demonstrates, there are multiple policies that could be adopted to address the environmental liability risk for innocent prospective purchasers of brownfields. An overview comparison of these options is provided in Table 3-1.

Table 3-1 Comparison of Liability Protection Options

Policy Options	Eligibility	Transactional Costs	Risk Reduction / Level of Protection	Implementation Considerations
<b>Liability Release through Voluntary Cleanup Program</b>	Public and private parties that complete the VCP	Medium—party completes cleanup, receives NFA, state provides some level of liability protection	Medium—assuming state provides less than complete liability settlement	Would require involvement of Attorney General’s office to provide liability release or statutory change
<b>Liability Exemptions for Innocent Purchasers</b>				
• <b>Exemption for Local Governments</b>	Local governments only when they acquire new property where they did not cause contamination	Low—statutory exception to definition of potentially liable parties	High—liability associated with historical contamination effectively avoided	Relatively limited statutory change.
• <b>Self-Administered Liability Exemption</b>	Public and private innocent purchasers	Low—statutory exception to definition of potentially liable parties	High—liability associated with historical contamination effectively avoided	Requires more significant statutory change
• <b>Affirmative Defense</b>	Public and private innocent purchasers	Medium—due care requirements to not exacerbate contamination	Medium—satisfaction of due care requirements can be contested	State should establish clear guidance on due care responsibilities to provide certainty and predictability
<b>Prospective Purchaser Agreements</b>	Public and private innocent purchasers	High—currently Medium—with adoption of recommended changes	High—defines liability with order or decree from the state	Legal agreement to cleanup site provides state with greater leverage than with exemptions

### 3.3.4 Publicly Funded Cleanup Trusts

**Challenge**—There is significant uncertainty for local governments considering conducting cleanups with Remedial Action Grants. Funding is subject to biennium budget appropriation. Accounting standards for financial reporting of environmental liabilities are changing. Cleanup cost estimates are often inaccurate because of project complexity. Unlike with other state-granted projects, grantees assume the legal liability to conduct the environmental remediation regardless of the amount of state grant support they receive.

**Solution**—A common approach to addressing financial issues relating to predictability and certainty is to establish a transaction-specific trust. A trust is a legal arrangement whereby control over assets is transferred to a person or organization (the trustee) for the benefit of someone else (the beneficiary). That concept could be applied to publicly funded cleanups with the creation of grant-funded trusts (PFCTs). A PFCT could be established by Ecology for individual projects or groups of projects to hold and receive grant funds. The PFCT could hold total funds necessary for a project rather than just the funds that will be expended in a given biennium.

Ecology or a third party designated by Ecology could act as the trustee. The funds would be disbursed to the local government under rules similar to current Remedial Action Grant guidelines. In some situations it could make sense to place grant funds in a trust that would provide funding for multiple projects for one local government. In such a situation, a local government would be encouraged to approach environmental liabilities in an area-wide and comprehensive manner. Multiple sites in an area could be evaluated and a phased strategy developed to address all sites over a course of years. Likewise, Ecology could commit to a funding strategy for the PFCT that would ensure that the funds would be available to undertake all projects. Local governments could form a development authority and cost-effectively hire employees and assemble a consultant and legal team to deal with all sites.

**63%** of grant-funded cleanup projects forecasted for the next ten years are expected to extend across multiple biennia.

**Expected Outcomes**—Local governments will be more willing and capable of taking on large-scale and long-term cleanup projects. PFCTs remove a major obstacle for public agencies' moving forward on redevelopment of brownfield properties by providing greater financial certainty related to grant funding.

### **Advantages**

- Provides certainty for local governments that funds for long-term projects will remain available as needed.
- If properly drafted, PFCTs could satisfy the requirements of GASB 49 and allow local governments to book the grants that offset environmental liabilities and prevent the concern that, by agreeing to take on a cleanup project, a municipality could appear financially insolvent.

### **Disadvantages**

- Reduces the state's flexibility to move resources between grant-funded projects.

#### **Policy in the Real World Example**

The Port of Bellingham has acquired a former paper mill on the Bellingham Bay waterfront. A master plan has been developed, through extensive community involvement, to transform this industrial site into a dynamic mixed-use waterfront with a public promenade and retail, commercial, and residential spaces, anchored by a new Western Washington University research and teaching facility.

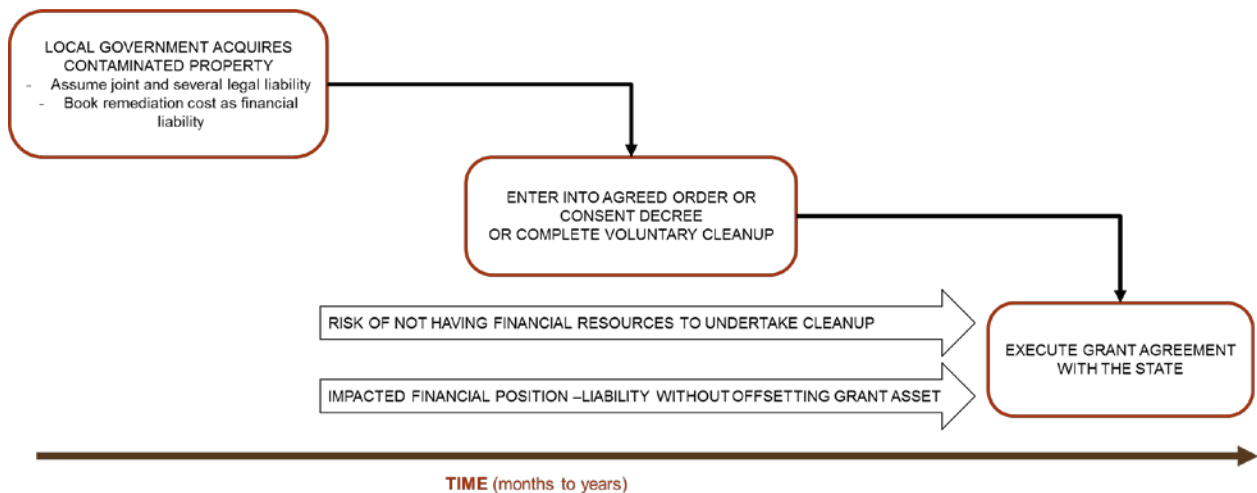
The complex environmental cleanup effort involves in-water and upland remedial actions and is estimated to cost nearly \$100 million over a six-year period. By acquiring the site, the port has taken on the responsibility for implementing the cleanup. The financing plan relies on state Remedial Action Grants to pay for half of the costs, but Ecology can provide grants to be expended only in the current biennium. Ecology has a tremendous record in meeting the needs of local communities that take on cleanup projects, but the port cannot be legally certain that funding will be allocated beyond the next year.

By using a PFCT for this project, the state could allocate the entire grant share of the cleanup costs. This would greatly reduce the risk taken on by the port and resolve GASB 49 accounting concerns.

### 3.3.5 Transactional Sequencing

**Challenge**—When a local government acquires a contaminated property, it assumes strict, joint, and several liability under MTCA. Local governments are eligible to apply for Remedial Action Grants to offset the environmental liability. However, they are eligible to apply for the grant only after they have taken title to the property and entered into a formal agreed order or consent decree with the state on the scope and schedule of remediation action, or have actually completed the cleanup and received an NFA. The current sequencing of the application process creates a temporal window of risk exposure and erodes the financial stability of local governments (see Figure 3-8). This risk exposure can be large enough relative to a local government’s financial capacity to make it decide against undertaking a brownfield cleanup project.

**Figure 3-8. Temporal Risk in Current Grant Application Process**



**Risk Exposure**—The local government assumes legal liability for the full extent of environmental cleanup under the joint and several liability framework immediately upon taking title. The state will accept an application for a grant only after the local government has acquired the property and either enters into a legally binding agreed order or consent decree or completes a voluntary cleanup action. Under this scenario, the local government assumes 100 percent of the legal liability, without any formal assurance of state financial assistance. Ecology’s track record regarding providing grants to local governments is excellent, but with the economic recession and state budget constraints, there is less certainty in the legislative appropriation of the entire MTCA fund.

**Financial Implications**—Current accounting standards under GASB 49 require that a local government’s financial reports reflect a known expected environmental remediation cost as a current liability. GASB 33 precludes a municipal government from recognizing an amount of any grant that has not been collected during the financial statement reporting period. The combined effect of these accounting standards is that when a local government acquires a contaminated property, its financial balance sheet can include a large liability with no offsetting asset from a grant. This has the potential to negatively affect the ability of the local government to borrow funds.

**Solution**—Create a universal closing event in which the local jurisdiction assumes title to the property, executes an agreed order or consent decree, and signs a grant agreement with the state at one sitting. This closing event requires that the needed documents be prepared and authorized before the local government actually assumes liability for the property.

This policy change would require amendment to the MTCA administrative code for agreed orders, consent decrees, and Remedial Action Grants to explicitly allow Ecology to enter into negotiations with local governments and process these agreements before acquisition of a contaminated property. Changes would be needed to incorporate public notification requirements. A public notice period could be provided to review drafts of the agreed order or consent decree before the closing event is held.

**Expected Outcomes**—This policy change would remove significant barriers to local governments leading brownfield projects. It would encourage local governments to take on abandoned or vacant brownfields by reducing risk associated with cleanup liability. It is difficult to estimate how many local governments would use this tool, but it would be expected that most communities currently involved in formal cleanups would choose this option if it were available and that a number of additional new projects would be initiated each year.

### **Advantages**

- Reduces the uncertainty associated with assuming responsibility for a cleanup site or initiating remedial actions.
- Provides great financial benefit to grantees without expending additional funds.

### **Disadvantages**

- Reprioritization of staff obligations that places high demands on coordination of Ecology and the Attorney General’s office.

### 3.3.6 Environmental Insurance

**Challenge**—A high level of risk and uncertainty is inherent in cleanup of contaminated properties, based on a number of factors, including:

- Cost of cleanup
- Potential discovery of unknown contaminants
- Claims by other potentially liable parties
- Third-party injury claims
- Regulatory changes in the future that may alter cleanup standards and reopen a completed cleanup

**Solution**—Ecology could establish a statewide program that would decrease the transaction costs and reduce the cost of purchasing environmental insurance. There are several options for setting up a statewide system, including: pool or preselect one or more insurers that would negotiate boilerplate policies or provide reduced-premium policies. Environmental insurance policies can provide protection against a number of these risks. The state legislature approved an amendment to MTCA that allows the use of Remedial Action Grant funds to purchase environmental insurance. A small number of grantees, including the Port of Bellingham and the Port of Anacortes, have purchased such policies.

The use of insurance is a complex proposition on the one hand, but offers an elegant solution on the other. Applications and available products are varied. Unlike more standard insurance products in the market, environmental policies can be customized to meet the needs of a particular application or otherwise standardized for consistent application to commonly occurring cleanup conditions, and can reduce the transactional costs associated with their implementation.

Several types of environmental insurance products address pollution risks associated with specific sites, as well as the remediation of those pollutants. These risks include unexpected cleanup requirements, cost overruns on planned remediation projects, and third-party liabilities (for example, bodily injury/property damage claims). These insurance products can also incorporate or combine with different funding mechanisms for financing the expected remediation costs. The most common environmental insurance products are cost cap and environmental impairment liability policies. Cost cap policies are designed to pay for unanticipated remediation project costs that exceed original project estimates. These policies are typically most cost effective for cleanups that cost over \$10 million. Currently these policies are difficult to obtain on the market. Environmental impairment liability



insurance typically protects the insured against pollution-related losses associated with previously unknown conditions, including cleanup costs and third-party property damage or bodily injury claims.

**Expected Outcomes**—The protections of an insurance program in place can entice potentially responsible parties to be more willing to address contamination issues. Environmental impairment liability coverage on a site to be redeveloped after cleanup can create additional real estate value. Cost cap policies eliminate cost creep and protect MTCA funds awarded through Remedial Action Grants. The risk of unknown and unanticipated liabilities is reduced or eliminated.

### **Advantages**

- Reduces transactional costs of environmental insurance and makes it more user friendly.
- Reduces the overall premium costs by creating insurance pools.
- Makes insurance available to smaller sites that would not otherwise have access to the market.

### **Disadvantages**

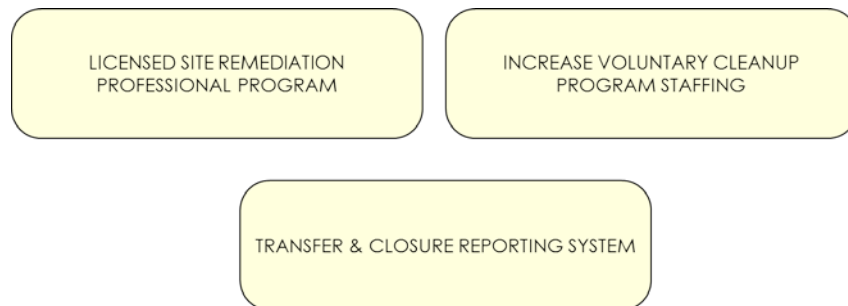
- Uses state resources to set up and operate the program, similar to the Energy Service Company program.

### 3.4 Improving the Cleanup Process

The length of time it takes to move a property through the cleanup process can be a major challenge to promoting redevelopment. There are strong time pressures on developers to cover the costs of financing and move a project from the capital-intensive phases of planning and construction to the revenue-generating phase. Analysis of the movement of cleanup projects through the MTCA cleanup process reveals that the typical brownfield site takes over four years to reach completion in the VCP. If the project goes through the formal administrative pathway with an agreed order or consent decree, that schedule stretches to over five years.

The policy tools in this section present options that expedite the cleanup process. It is important to note that, under all of these options, the existing rigorous cleanup standards apply.

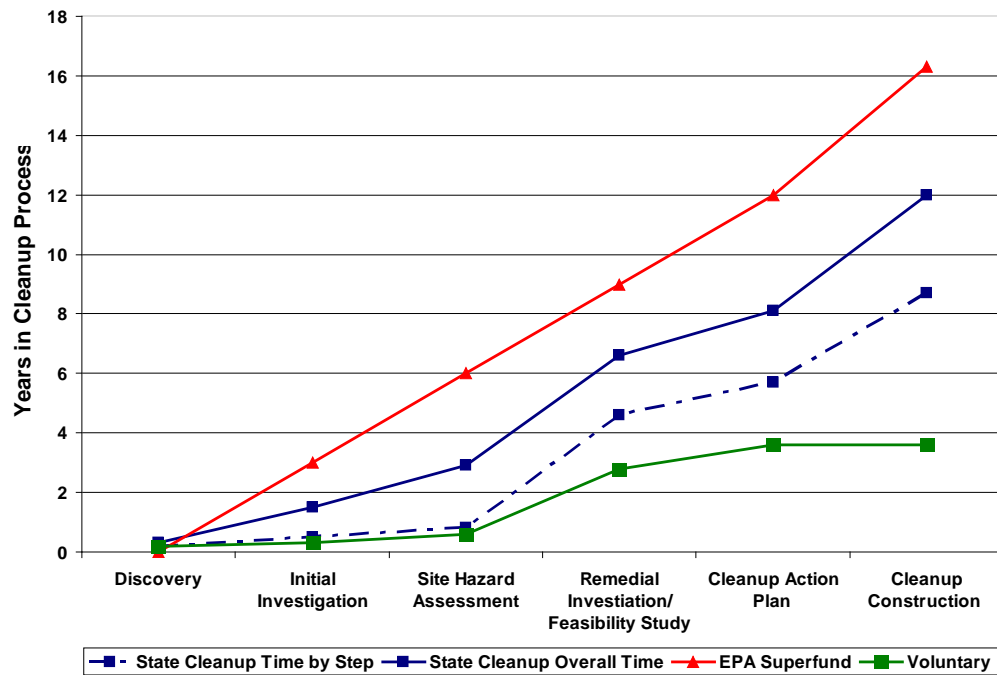
**Figure 3-9. Policy Tools That Improve the Cleanup Process**



### 3.4.1 Licensed Site Remediation Professional Program

**Challenge**—The sheer number of contaminated properties and the length of the cleanup process, especially through the formal pathway, are major challenges to brownfield redevelopment in Washington State. Ecology estimates that typical sites in the VCP take nearly four years to complete (see Figure 3-10). This duration doubles or triples for sites in the formal program. Compounding the schedule problem, more sites are entering the cleanup program each year than are being completed, so a backlog is building.

**Figure 3-10. Length of Time to Complete Cleanup Projects near Puget Sound**



**Solution**—In response to these same challenges, several states have created systems giving licensed professionals authority to certify cleanups and have decreased the role of the state in the administrative process. These programs are proving to be successful in increasing the number of cleanups conducted, decreasing the length of the cleanup process, and providing effective remedial actions. The three primary elements (and an optional fourth element) of LSRP programs are described below. These represent the common elements of LSRP programs in Ohio, Massachusetts, Connecticut, and New Jersey:

- **Licensing Program**—Establish a licensing program to ensure that cleanups are managed by qualified professionals. Most states that have adopted the LSRP approach have established a licensing board and have detailed qualifications in the areas of education (including continuing education), experience, and written tests.
- **Certification of Cleanups**—Devolve cleanup authority for low- and medium-risk sites to licensed professionals. The experience of other states is that the vast majority of site assessments and cleanups are conducted by LSRPs. The state audits a percentage (usually 10 to 20 percent) of the cleanup sites. One state (Ohio) requires the state to audit all sites that rely on institutional and engineering controls.
- **Liability Release**—Grant a liability release to innocent parties that employ qualified professional to remediate sites, contingent on state review of cleanup results. All states using the LSRP model offer a liability release or covenant not to sue. In three states the covenant is contingent on the state reviewing or auditing the site cleanup record. One state (New Jersey) has an automatic covenant based on certification of the cleanup by the LSRP.
- **Mandatory Reporting of Known Contamination**—An optional element adopted by two states (New Jersey and Massachusetts) is mandatory reporting and cleanup of known contamination. When property owners become aware of contamination, they are required to notify the state and hire an LSRP to conduct cleanup actions.

An important factor to consider in the potential to adopt an LSRP program in Washington State is the demographic shift under way in the Toxics Cleanup Program. As in many state agencies, most staff in the program are part of the baby boomer generation. Based on a recent survey of ages and years of experience, approximately 50 percent of Toxics Cleanup Program staff will be eligible for retirement by 2014 (see Table 3-2). The coming wave of retirements will likely reduce the institutional knowledge and the capacity of the agency in unique skill sets.

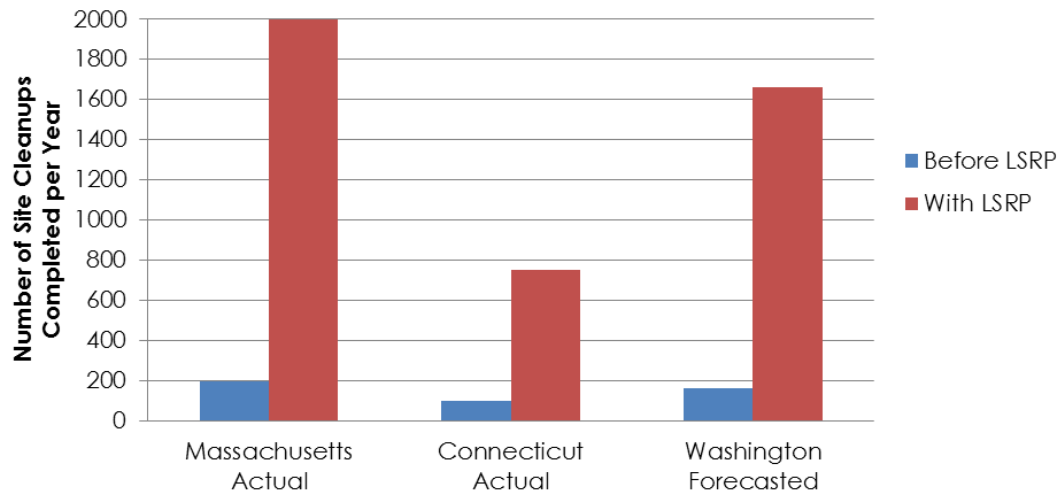
**Table 3-2. Trend in Toxics Cleanup Program Staff Retirement Eligibility**

Staff Eligible for Retirement (total of 166 staff)	2010	2012	2014	2016
<b>Number of Staff Eligible</b>	38	64	79	84
<b>Percentage of Staff Eligible</b>	24%	40%	50%	53%

**Expected Outcomes**—Potential dramatic increase in the number of sites remediated and a decrease in the length of the cleanup process. The states report that the number of sites that are cleaned up each year has increased by approximately ten times (see Figure 3-11). The audit process for these cleanups indicates that the cleanups meet state standards and that no significant concerns have arisen regarding the quality of the technical work conducted by the LSRPs. The states also report that the time needed for sites to go through the cleanup process has been reduced to only one or two years.

- The staffing level of state environmental protection agencies has remained steady. The role and responsibilities of staff have shifted from oversight to auditing, but the increased volume of sites moving through the cleanup process has required that same level of full-time employees.

**Figure 3-11. Number of Cleanup Sites Completed per Year before and after Implementing LSRP Program**



The states that have adopted LSRP programs had varied experiences with the time to realize increases in cleanups. In Massachusetts, the number of sites cleaned up per year increased tenfold in only a few years. New Jersey has taken an incremental approach to adopting a full LSRP program. In the first year after adopting an LSRP with the full set of tools, the number of cleanups per year increased 25 percent. The experience in New Jersey has demonstrated that the full benefits of an LSRP program come only with a program that includes robust authority for the licensed professionals to certify cleanups.

### **Advantages**

- Dramatic increase in the number of sites cleaned up per year.
- Decreased time for administrative cleanup process.
- Puts more properties back into productive use with associated job creation and increased tax revenue generation.

### **Disadvantages**

- Requires shift in responsibilities of Toxics Cleanup Program staff.
- Requires retraining of staff to conduct audits of cleanups.
- Potential perception that private consulting firms will not provide as high a level of cleanup work as state regulators; however, the experience of other states indicates that corporate liability concerns have made private firms take an even more conservative approach to site assessment and cleanup.

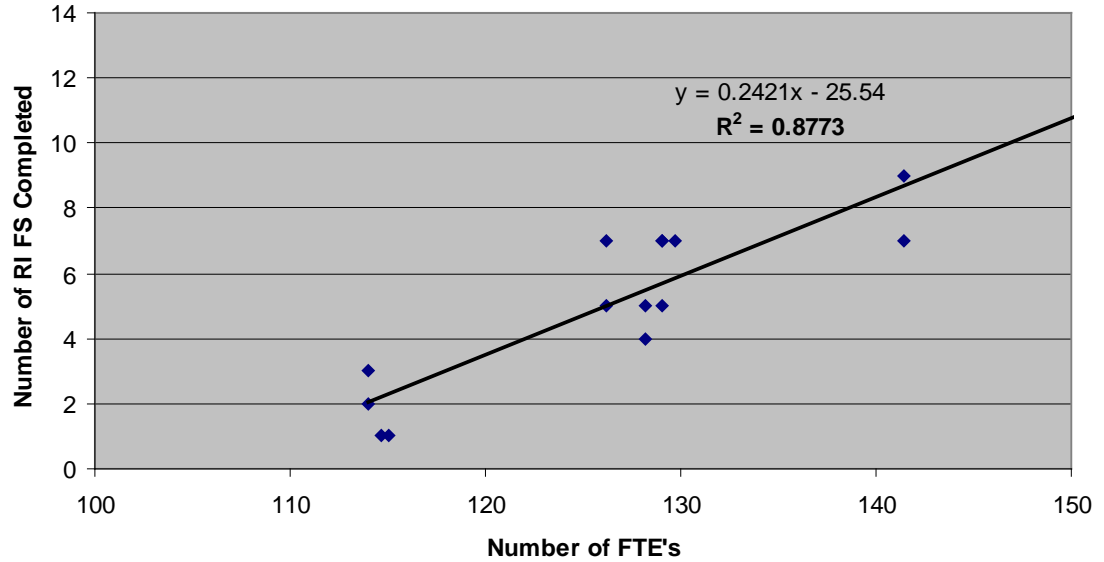
## **3.4.2 Increase Staffing Levels of Voluntary Cleanup Program**

Under the VCP administrative pathway, Ecology staff provide technical consultation and opinion letters indicating whether proposed remedial investigation and cleanup actions sufficiently comply with the MTCA statute, administrative rules, and guidelines.

**Challenge**—In the past, approximately 24 percent of all sites in the Toxics Cleanup Program have gone through the VCP. In recent years, this has shifted dramatically and nearly 90 percent of new sites are going into the VCP. Currently, the staffing level for VCP site managers is approximately 12 full-time employees, while the staff for the formal program that manages the most complicated and highly contaminated sites is approximately 55 full-time employees.

The average time for a project to be completed in the VCP has doubled from two to four years since 2000. A key contributing factor to this long timeframe appears to be the level of staffing. The number of staff assigned to provide oversight and guidance may have a profound influence on the number of the remedial investigations and feasibility studies. A regression analysis was performed to examine the relationship between these variables over a 20-year period from 1988 to 2008. The regression reflects a strong positive correlation between the number of staff and the number of remedial investigations and feasibility studies completed (Means, 2008) (see Figure 3-12).

**Figure 3-12. Relationship between Number of Full-Time Employees and Completion of Remedial Investigations and Feasibility Studies**



**Solution**—Ecology could more aggressively use the fees paid by project proponents to fund VCP staff salaries. This may require an increase in the staff hourly rate cost recovery formula. Increasing the number of staff in the VCP appears to be an effective tool for decreasing the length of the administrative process and fostering completion of a larger number of cleanups throughout the state.

An alternative approach is to more frequently use prime contractors to provide additional staff capacity. Ecology has the authority to contract for additional expertise as needed and has on-call agreements with several prime contractors. This alternative allows the agency to add capacity as needed with great flexibility. Ecology establishes multiyear agreements with prime contractors who conduct remedial actions and other activities at the direction of the agency. These prime contractors have the expertise to support Ecology’s oversight duties as well.

The state may seek reimbursement from the project proponent for staff costs to provide this technical consultation (RCW 70.105D.030(1)(i); WAC 173-340-550(6)). Given this authority, there is the potential to manage the VCP so that it approaches self-sufficient funding through payments for service.

**Expected Outcomes**—This policy change provides private funds to increase the capacity of the public agency to undertake a heavier workload. It increases resources to expedite the administrative process of conducting cleanup actions.

### **Advantages**

- Increases capacity of a successful state program.
- Costs of staff increases can be offset by service fees so that the program achieves financial self-sufficiency.

### **Disadvantages**

- Perception that this policy change increases the size of government
- Increased demands on Ecology management and administrative staff

### 3.4.3 Transfer and Closure Reporting System

**Challenge**—There is currently no statewide inventory of potentially contaminated properties. Without a proactive system of identifying and inventorying these properties, it is likely that the number of brownfields is greatly underestimated.

There is currently no system in place to automatically notify Ecology of the presence or suspected presence of contaminants in relation to the sale of a property. Purchasers of commercial and industrial properties typically undertake environmental due diligence; however, it is not mandated and the state is not notified of the findings. MTCA administrative rules require that an owner or operator give notice to Ecology within 90 days of knowledge of an unpermitted hazardous substance release (WAC 173-340-300). The state Hazardous Waste and Toxics Reduction program requires reporting of hazardous materials use. Ecology also implements Title II of the Superfund Amendments and Reauthorization Act, also known as the Federal Emergency Planning and Community Right to Know Act, which requires notification of presence on site, use, and release of hazardous chemicals for certain types of facilities.

**Solution**—A mandatory reporting system could be linked to the closure and/or sale of industrial and commercial property where hazardous substances are used. This system would improve the state's understanding of the number of contaminated sites. The system could potentially address the challenge of identifying and tracking potentially liable parties as well.

**Expected Outcomes**—The system would provide a more refined understanding of the number of contaminated sites in the state and would also increase public awareness of the presence and magnitude of



contaminated sites. It could improve the state's ability to track potentially liable parties.

### **Advantages**

- Improves knowledge and understanding of the number and types of contaminated sites in the state.

### **Disadvantages**

- Requires high demand on state staff and information technology resources to establish and maintain the system.
- May duplicate existing hazardous materials and waste reporting systems.
- May have a chilling effect on the real estate market, especially in the current down cycle.

### 3.5 Address Area-Wide Contamination Issues

The policy recommendations in this section address the challenges from contamination that migrates across property boundaries or is prevalent across a neighborhood or community. This creates a twofold challenge: (1) redevelopment projects focus on properties but can be hindered by off-property contamination; and (2) an area-wide approach to characterizing and remediating contamination may be needed to effectively and efficiently address risks.

One of the potentially most effective tools for communities to address area-wide contamination problems would be BDAs, which are described in Section 3.1.4. Another important policy recommendation is to reform the existing area-wide groundwater Remedial Action Grant.

**Figure 3-13. Policy Recommendations that Address Area-Wide Contamination**



#### 3.5.1 Area-Wide Groundwater Remedial Action Grant

The purpose of the area-wide groundwater Remedial Action Grant program is to provide funding to local governments that facilitate the cleanup and redevelopment of property within their jurisdictions where the groundwater has been contaminated by hazardous substances from multiple sources (WAC 173-322-090).

**Challenge**—The eligibility criteria and application rules for the Area-Wide Groundwater Remedial Action Grant include requirements that make the funds so difficult to access that this grant has never been used. The administrative rules require that grant funds be repaid if used on private property (WAC 322-090(7)(e)). The grant guidelines require that to even apply for the grant, a local government must provide Ecology with a copy of a reimbursement agreement with affected property owners.

**Solution**—The administrative rules for this grant should be revised to remove the requirement to repay funds expended on private property. This change may require review of the constitutional restrictions on Washington State’s lending of public credit.

**Expected Outcomes**—These policy changes would provide financial resources to local governments to address area-wide groundwater contamination through an existing program that has never been used because of current constraints. The results from area-wide groundwater studies can reduce transactional costs, decrease uncertainty, and assist in risk management for cleanup and redevelopment of individual properties in contaminated areas.

### **Advantages**

- This existing program, which has never been used, will be made more accessible.
- Provides resources to address one of the most complex impediments to redevelopment.

### **Disadvantages**

- May create constitutional conflict with state prohibitions on lending public credit to private parties.

## 4 SETTING PRIORITIES

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Through discussion and a survey, the advisory panel prioritized the policy recommendations, based on two primary factors: impact and feasibility. Impact was rated on three components:

- Potential for the policy tool to have a significant positive benefit on cleanup and redevelopment of brownfields
- Degree to which the tool addresses the key challenges to brownfield redevelopment
- Potential synergy between the tool and other policy recommendations

Feasibility was rated on the following three components:

- Likelihood that the proposed policy change can be approved
- Capacity of state agencies to implement and fully utilize the policy tool
- Capacity of local governments and the private sector to use the tool

The survey synthesizes the expertise and experience of the advisory panel into a quantifiable ranking of the policy tools. While each individual's rating is inherently subjective, the collective opinion of the group identifies relative priorities. The survey demonstrated strong consensus of the panel on which policy reforms have the highest potential impact and will be the most feasible to implement (see Figures 4-1- to 4-4).

Using this priority ranking, the policy recommendations can be viewed from the lenses of different perspectives.

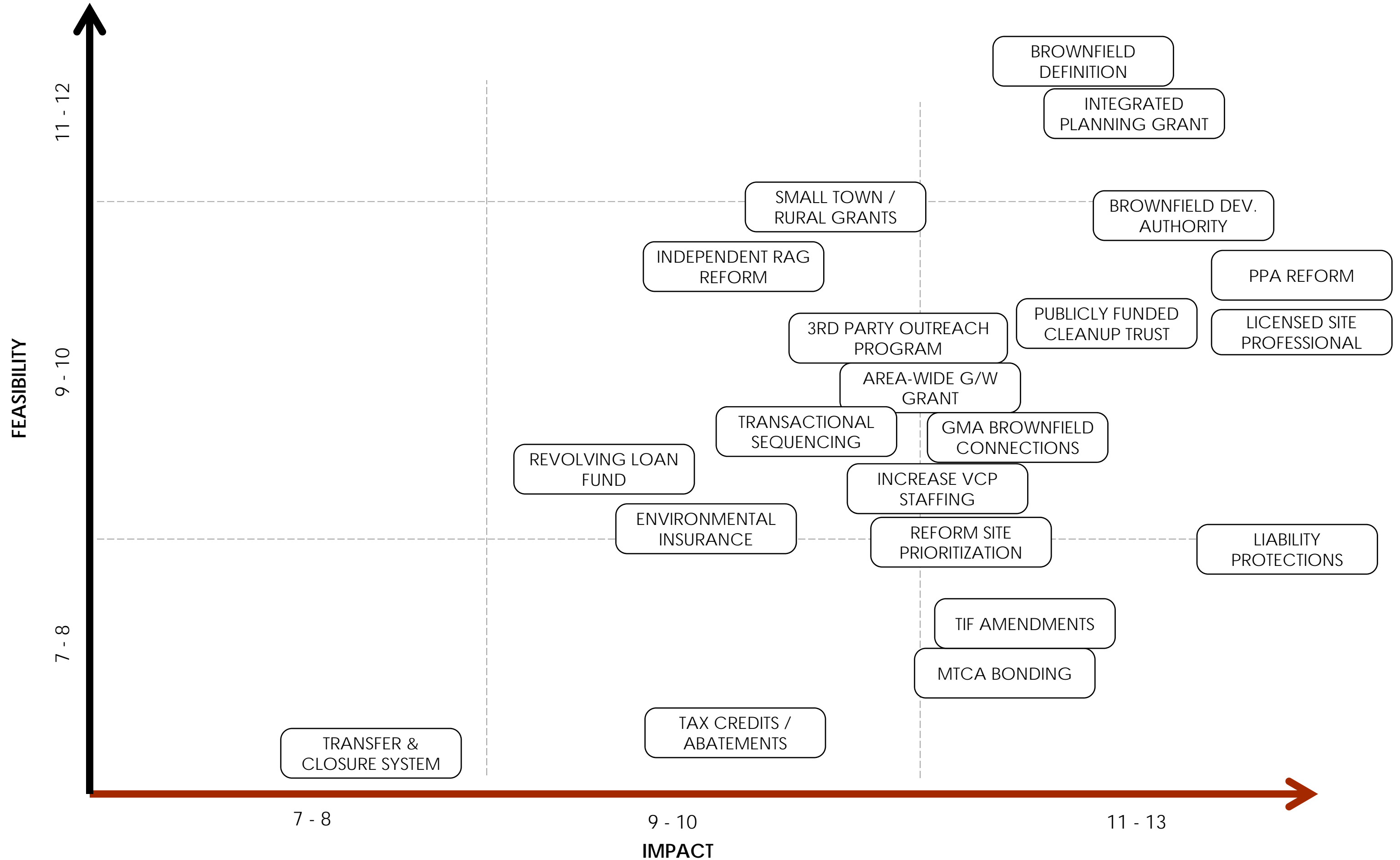
**Benefit to Public or Private Sector**—An important consideration for brownfields in Washington State are the incentives that can be provided for private or public parties. The state constitution prohibits the lending of public credit to private parties, so while there is a robust Remedial Action Grant program for the public sector, there are few financial incentives for private parties to conduct environmental cleanup. Assessing whether the public or private sector benefits from the brownfield policy recommendations shows that most of the highest-impact tools are targeted for the private sector (see Figure 4-2).

**Implications to State Resources**—A preliminary analysis of the financial and staffing impacts of implementing the policy recommendations indicates that most of them are not likely to require significant additional resources (Figure 4-3). This analysis does not include the effort to develop the new policies, but rather focuses on carrying them out. An important next step in moving any of these individual policies forward will be conducting a more detailed analysis of fiscal impacts.

**Mechanics of Policy Change**—Implementation of the policy recommendations will require changes to state law, administrative codes, and internal agency policies. The primary area of changes is illustrated in Figure 4-4. Note that most of the highest-impact policies require legislative changes. Most of the medium priorities can be implemented through administrative rule revisions and changes in agency policy. Revisions to the Remedial Action Grant administrative rule (WAC 173-322) can address five of the policy recommendations.

Figure 4-1

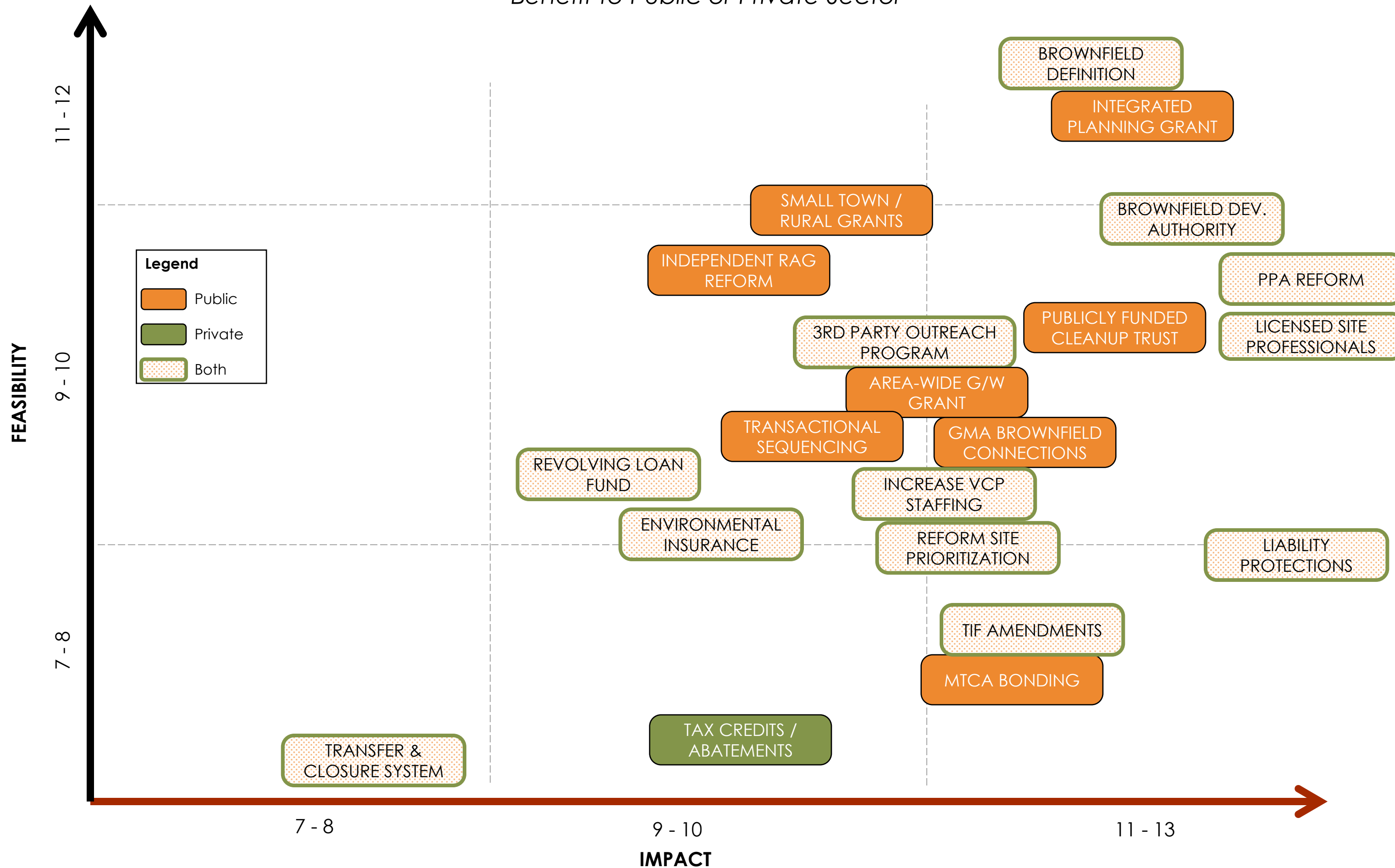
# IMPACT AND FEASIBILITY RANKING OF BROWNFIELD POLICY TOOLS



# IMPACT AND FEASIBILITY RANKING OF BROWNFIELD POLICY TOOLS

*Benefit to Public or Private Sector*

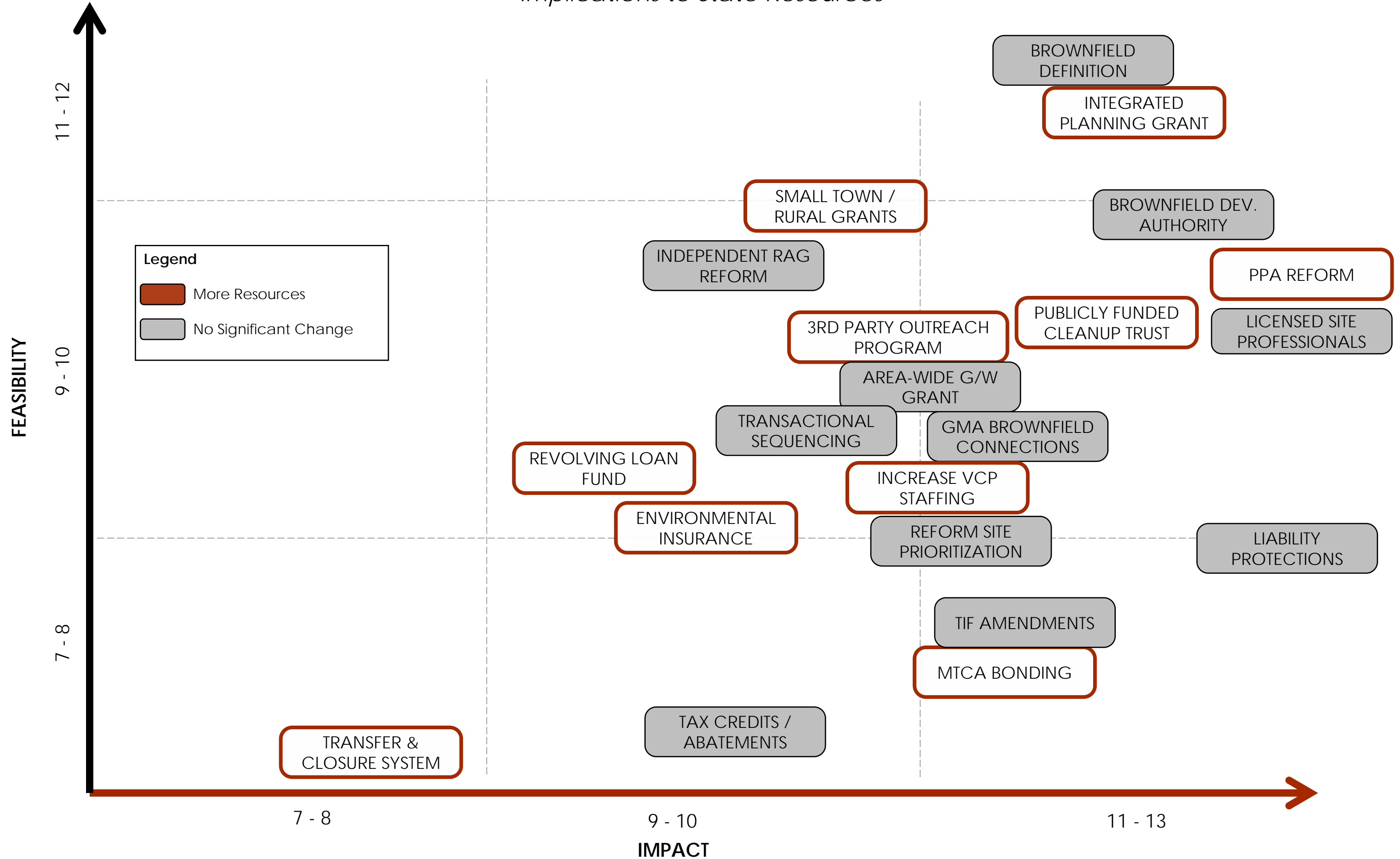
Figure 4-2



# IMPACT AND FEASIBILITY RANKING OF BROWNFIELD POLICY TOOLS

## *Implications to State Resources*

Figure 4-3

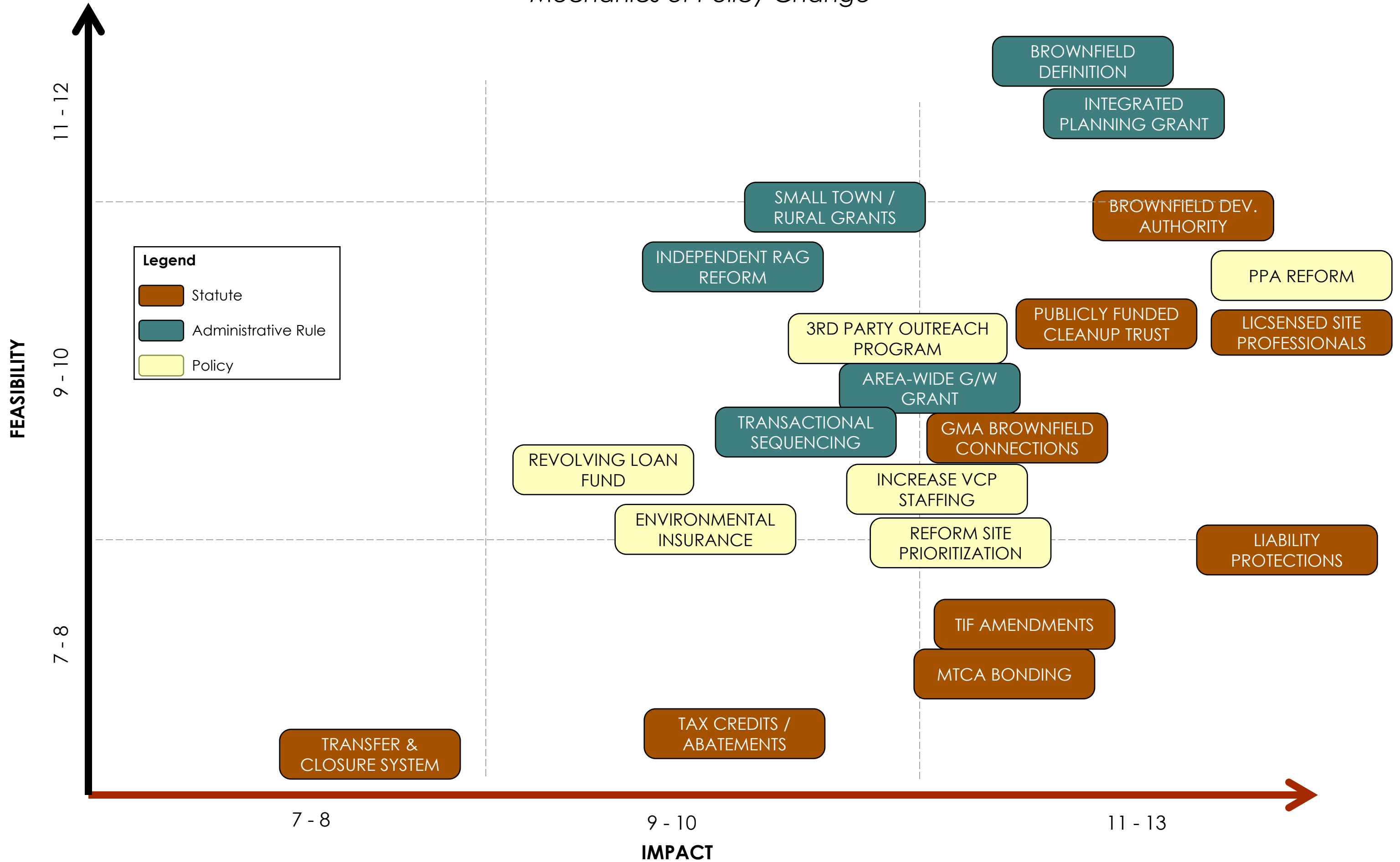




# IMPACT AND FEASIBILITY RANKING OF BROWNFIELD POLICY TOOLS

## Mechanics of Policy Change

Figure 4-4



# 5 IMPLEMENTATION STRATEGIES

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A large number of policy recommendations have been developed that would help transition Washington into a third-generation brownfield cleanup program that would make existing policies more efficient and effective. As the priority-setting exercise demonstrates, these policies vary in their potential impact and feasibility. Implementation of these policies should take advantage of synergies between tools to focus limited resources on the greatest potential benefit. The policy recommendations can be grouped into three categories that capitalize on synergies and target changes where they will create the greatest leverage (see Table 5-1). These categories are:

- Empowering local communities
- Accelerating private investment
- Building capacity

Table 5-1

## Brownfield Policy Recommendations

Policy Tool (In order of priority as ranked by Advisory Panel)	Impact	Feasibility	Mechanics	State Resources	Empowering Communities	Accelerating Private Development	Building Capacity	Policy Phasing
Make Integrated Planning Grants a Permanent Program	12.0	11.5	WAC	+	●		●	Short-Term
Prospective Purchaser Agreement Improvements	13.3	10.1	RCW or Policy	+	●	●	●	Short-Term
Codify Brownfield Definition	11.5	11.7	RCW	=	●	○	●	Short-Term
Create Brownfield Development Authorities	12.6	10.5	RCW	=	●	○	○	Short-Term
Create a Licensed Site Remediation Professional Program to Certify Cleanups	13.2	9.7	RCW	=	●	●	●	Mid-Term
Increase Environmental Liability Protections	13.3	8.5	RCW	=	●	●		Short-Term
Create Publicly Funded Cleanup Trust	11.7	9.8	RCW	+	●			Short-Term
Set Aside Portion of Remedial Action Grants for Small Towns and Rural Counties	10.6	10.8	Agency Policy	+	○		○	Short-Term
Increase Brownfield Connection to Growth Management Act	11.3	9.3	RCW	=	●			Mid-Term
Reform Area-wide Groundwater Remedial Action Grants	11.0	9.5	WAC	=	○		●	Short-Term
Create a Third Party Brownfield Outreach Program	10.8	9.5	Agency Policy	+	○	○	●	Mid-Term
Reform Reimbursement Policy for Voluntary Cleanups	10.1	10.2	WAC	=	●			Short-Term
Increase Voluntary Cleanup Program Staff	10.9	9.3	Agency Policy	+	○	○	●	Short-Term
Amend Existing Tax Increment Financing Laws to Emphasize Brownfield Cleanup & Redevelopment	11.5	8.6	RCW	=	○			Short-Term
Broaden the Site Prioritization Framework	11.1	9.0	Agency Policy	=		○		Mid-Term
Improve Transactional Sequencing	10.3	9.6	WAC	=	○			Short-Term
Use MTCA Tax Revenues for State or Local Bonding	11.4	8.5	RCW	+	○		●	Mid-Term
Create Tax Incentives for Environmental Cleanup Actions	10.6	8.8	RCW	=		●		Short-Term
Provide Pooled or State Subsidized Environmental Insurance	9.9	9.1	Agency Policy	+	○	○	○	Mid-Term
Improve the Brownfield Revolving Loan Fund	9.5	9.2	Agency Policy	+	○	○	○	Mid-Term
Establish a Contaminated Property Transfer and Closure Reporting System	8.3	6.3	RCW	+			○	Mid-Term

**LEGEND:**

IMPACT –Higher score is greater benefit; FEASIBILITY-Higher score is greater likelihood of adoption

+ Requires greater state resources, = No significant change in state resources likely needed

● = Primary, ○ = Secondary

SHORT TERM = 1-2 years, MID-TERM = 3-5 years

## 5.1 Empowering Communities

Cities, port districts, counties, housing authorities, PDAs, and other local public agencies play a leadership role in revitalizing our communities. Current state policy can be modified to provide more and better tools to support these efforts and reduce the risk these local governments take on when

### Policies to Empower Communities

#### Land Use Tools

- *Brownfield Definition*
- *GMA Additions*
- *BDA*s

#### Financial Tools

- *Integrated Planning Grants*
- *Independent Remedial Action Grant Reform*
- *PFCT*s

#### Risk Management

- *Liability Reform*
- *PPA*

#### Efficiency and Capacity

- *LSRP Program*

investing in contaminated property. The tools listed here and discussed below provide a package of mutually supportive policies to achieve these objectives. Local communities would be empowered to set priorities for brownfields that align related economic and community development and public health and environmental goals. They would have clear authority to use innovative tools to support redevelopment of priority neighborhoods and properties. The risk of environmental liability that often prevents local officials from engaging in brownfield projects would be limited so that their efforts on behalf of the public good would not put the taxpayers in a financial predicament.

**Land Use Tools**—Adoption of the proposed brownfield definition and authorities under GMA would enable local governments to prioritize and incentivize redevelopment of contaminated properties in the context of their broader community planning goals and objectives. Additional powerful incentives could be provided in targeted BDA districts.

**Financial Tools**—The combination of minor changes to two existing state grant programs, the Integrated Planning Grant and the Independent Remedial Action Grant, along with establishing PFCTs and an LSRP program, would significantly improve the financial position of local governments to invest in brownfields. The Integrated Planning Grants provide 100 percent funding for environmental due diligence, market analysis, and redevelopment planning, allowing communities to thoroughly examine the reuse potential of a property before investing local tax dollars. Altering the reimbursement policy of the Independent Remedial Action Grant would resolve cash flow issues that could prevent local agencies from conducting cleanups. PFCTs would provide financial certainty for communities undertaking large and long-term cleanup projects.

**Risk Management**—The current policy system makes a local government legally liable for historical contamination if it voluntarily takes title to a

brownfield property. If this liability regime were to be changed, local officials would be much more willing to acquire abandoned and underutilized contaminated properties for the purposes of cleanup and redevelopment. This risk can be managed through providing a liability exemption, an affirmative defense, or a PPA that is available to parties that did not cause contamination of the property. Any one of these options has the potential to resolve this important issue.

**Efficiency and Capacity**—Establishing an LSRP program would reduce the time needed to complete a project by effectively expanding that capacity of the regulatory system to process sites. This provides a great benefit for local communities to take advantage of momentum, leadership, and public support to move projects. These important elements can all decline if a project languishes in a long cleanup process. Greater efficiency would also decrease the costs of financing cleanup.

## 5.2 Accelerating Private Investment

### Policies to Accelerate Private Investment

#### **Risk Management**

– *Liability Reform*

– *PPA*

#### **Efficiency and Capacity**

– *LSRP Program*

#### **Financial Tools**

– *Tax Incentives*

The private real estate market drives the vast majority of brownfield projects. In Washington State, 90 percent of cleanup projects in process are led by private parties. These private projects include polluters paying to clean up historical contamination, but many sites are led by new owners bringing a property back into productive use. Survey-based research and input from representatives of the development community in Washington State both indicated that the greatest need for the private sector is predictability, certainty, and risk management (Wernstedt

et al., 2004). In the current real estate market, a readily accessible and dependable financial incentive, such as a tax credit, can also be critical to a project's success. Taken together, these tools would greatly improve the environment for private party cleanups in the state. Because of the large proportion of private sites in the state and because such tools leverage private rather than public funds, this group of recommended policies likely provides the greatest return on government investment.

**Risk Management**—Under Washington State law, innocent parties that purchase a brownfield property are legally liable for historical contamination. The federal Superfund Law was amended in 2002 to provide protections for Bona Fide Prospective Purchasers if they conduct appropriate due diligence and take appropriate care of the property to control contamination exposure risks. Many states have adopted similar or stronger protections for innocent purchasers. Washington State could adopt liability reforms or a PPA that can make it easier and less risky for private investors to take on brownfield

projects. These risk management tools can be crafted to address this challenge for both public and private parties.

**Efficiency and Capacity**—In the real estate industry, time is money. Interest payments on construction loans are a critical component of the financial feasibility of projects. By creating a more efficient cleanup process, Washington State could reduce the real costs borne by both private and public entities. This would also provide more predictability for developers in timing projects for the marketplace. Licensed site remediation programs have been demonstrated in other states to reduce the time needed to complete cleanups to one to two years, which is a fraction of the duration of the current process in Washington State.

**Financial Tools**—Tax incentives are a common and fundamentally important tool for making urban infill projects financially competitive with greenfield projects in the suburbs. The Historic Building Preservation tax credit and Affordable Housing tax abatements are proven tools. An environmental tax incentive, improved from the previous Washington State exemption, could be a powerful financial tool, especially during this economic period when the real estate market is beginning to recover from the Great Recession.

### 5.3 Building Capacity

#### Policies to Build Capacity

##### **Financial Tools**

- *Bonding MTCA Revenue*
- *Area-Wide Groundwater Grant*
- *Third-Party Brownfield Program*
- *Environmental Insurance*

##### **Cleanup Process**

- *VCP Staff*
- *LSRP Program*

Brownfield redevelopment requires a team of experts and substantial upfront funding to complete cleanup actions. Successful projects often involve multiple partners from the private sector and local and state government. Each of these parties brings specialized expertise and financial resources to a project. A fundamentally important approach to efficiently completing more brownfield projects in the state is to increase the capacity of these organizations. A set of policy tools that address financial and staffing resources

can be crafted to meet this need.

**Financial Tools**—Washington State is a leader in the country for committing state funds for contaminated site cleanup. The Hazardous Substance Tax has generated over \$80 million per year since 2005. The revenues from this tax are used to fund a number of state and local programs that focus on cleanup, pollution prevention, and waste management. Approximately 20 percent of the tax revenues are appropriated for Remedial Action Grants to local governments. Ecology’s ten-year forecast for these funds indicates that demand for these grants exceeds the availability of funds

by three times. The state can address this funding gap by selling bonds backed by the Hazardous Substance Tax revenue to leverage the fund and generate more cash in the near term. The state could also support the establishment of a third-party brownfield outreach program that, among other duties, would assist local governments and nonprofits in applying for federal brownfield grants to match state funds.

### Impact of the Duwamish Superfund Cleanup on State Resources

The Duwamish River cleanup represents a tremendous demand on the Remedial Action Grant program. In the ten-year financing forecast, the Duwamish River cleanup represents approximately 70 percent of the projected demand for state grants. This large project calls for a special funding plan. A plan could include the use of bonds and PFCTs, but also may merit a substantial federal cost share, based on the national significance of the project.

**Cleanup Process**—The pace of the cleanup process is an impediment to redevelopment. Ecology estimates that the time it takes a typical site to complete the VCP process increased from two to four years between 2004 and 2009. There are a number of causes that likely contribute to this long timeframe, including the increasing complexity of environmental regulation, the staff workload, the complexity of particular cleanup sites, and a policy framework that does not consider the development aspect of brownfield cleanup. Two different approaches to this challenge have been proposed: increase agency staff or fundamentally change how cleanup oversight is conducted.

The logical place to increase staff would be in the VCP, which is being used by approximately 90 percent of new sites. Parties entering the program pay for agency staff time, so there is the potential to manage this system so that it is self-funded. Increasing the staff would likely increase the throughput of sites, but would not change the underlying culture of the agency, which is unresponsive to the time pressures of real estate development.

Several states changed the agency oversight role to auditing the completed work of LSRPs. The advantages of this system are a dramatic increase in the number of cleanups completed and a similar decrease in the duration of the process. Based on results from other states, Washington could expect the number of site cleanups to increase from the current rate of 200 per year to 2,000 and the processing time for typical sites to decrease to as little as one year.

## **Impact of Building Capacity Policy Recommendations**

Based on research on the experience of other states that have adopted these policies and Washington State records on the performance of the Toxics Cleanup Program, a preliminary estimate of the impact of the “Building Capacity” policy recommendations has been developed. It is inherently difficult to accurately estimate the future number of cleanups completed. This estimate is based on a number of assumptions detailed in the Table 5-2, but it provides an order-of-magnitude sense of the long-term impact of the policy recommendations.

It is forecasted that the number of cleanups completed in the state could increase from the current number of approximately 150 per year to over 1,600 per year (see Figure 5-1). This analysis highlights the tremendous potential of the LSRP program, in particular, to facilitate and expedite cleanups. The states that have adopted LSRP programs had varied experiences with the time to realize increases in cleanups. (See Section 3.4.1). This forecast assumes adoption of a robust program and enough time for it to mature.



**Table 5-1 Forecasted Number of Cleanups Completed with Adoption of Capacity Building Policy Recommendations**

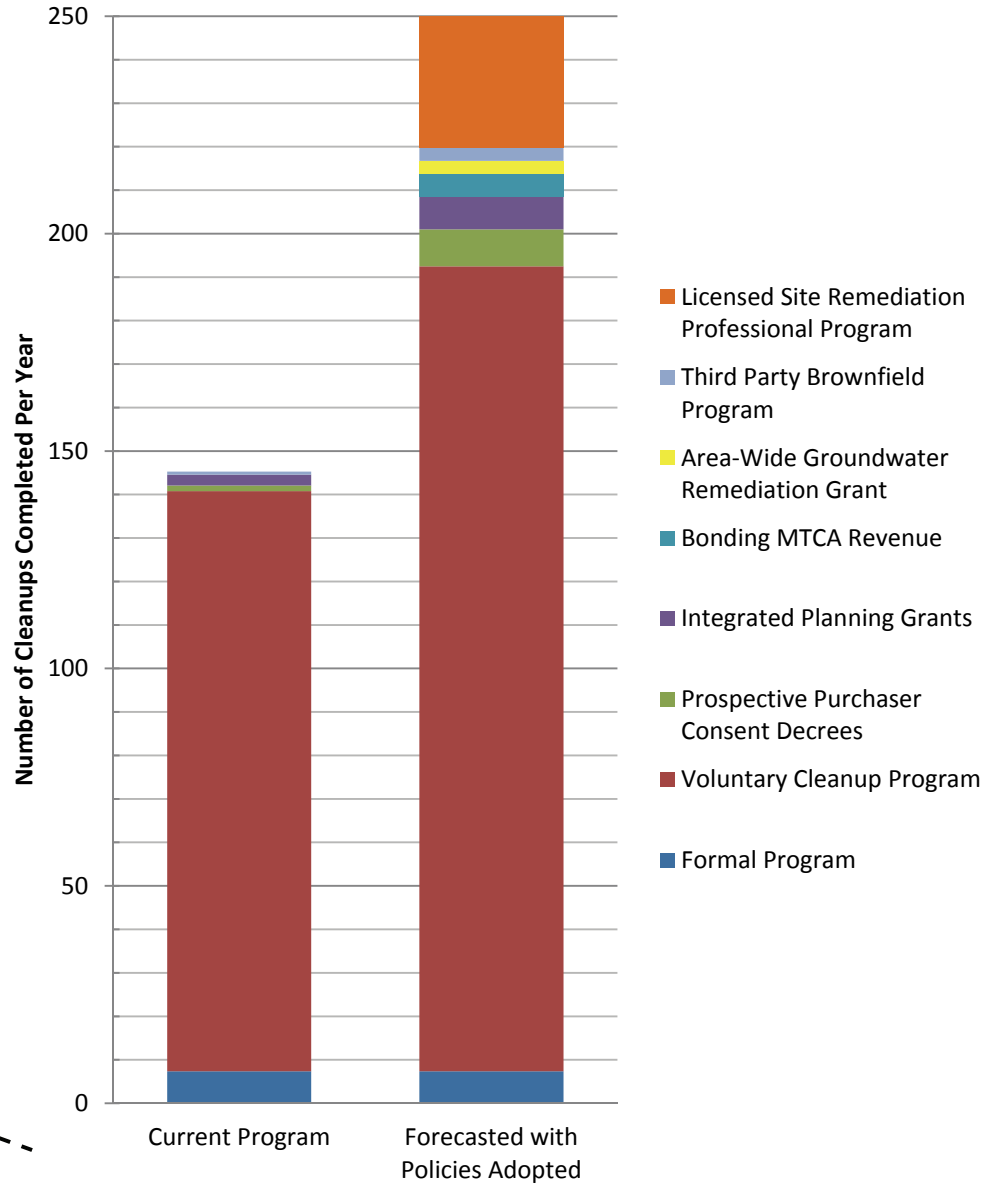
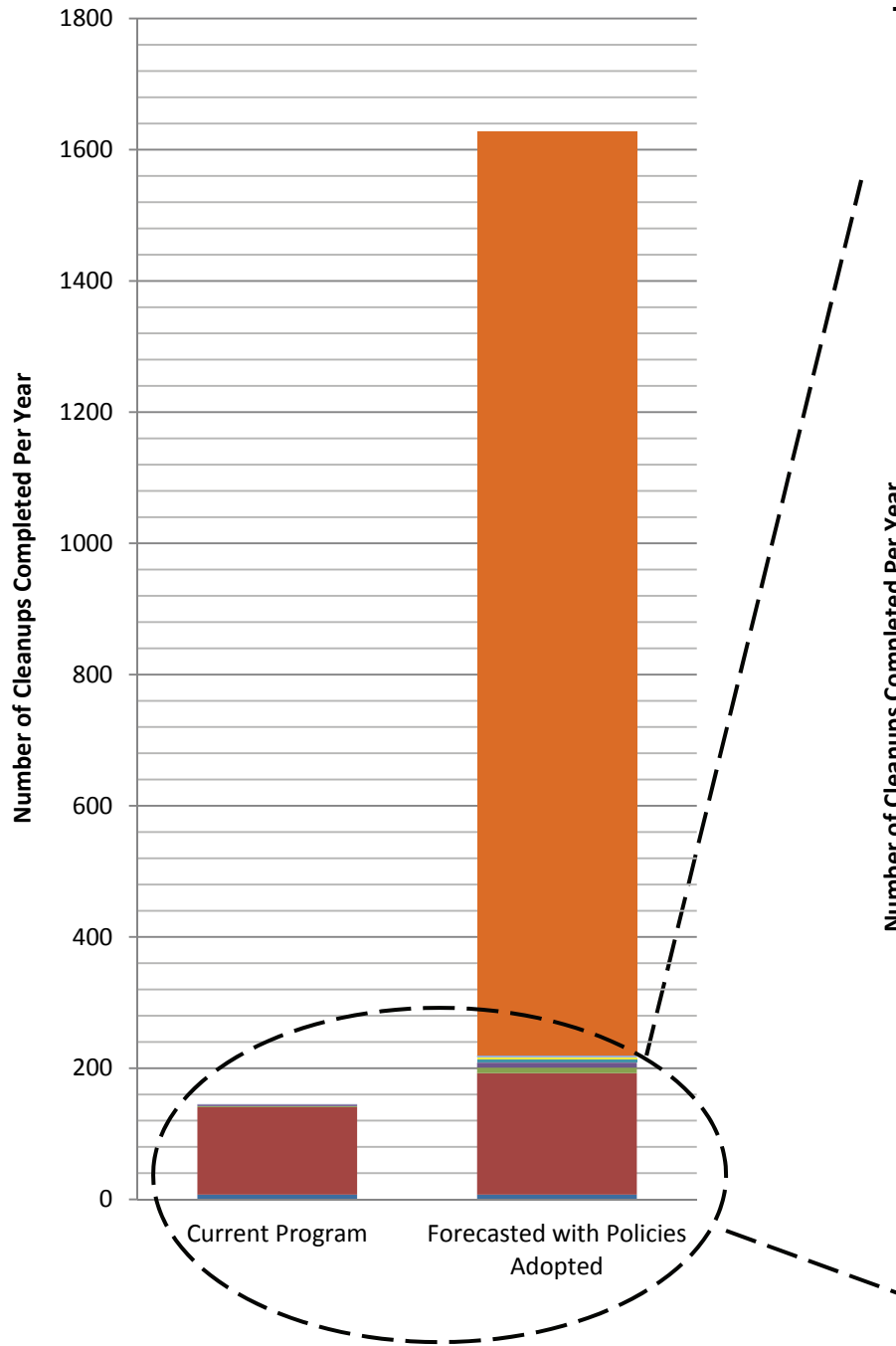


Table 5-2 Assumptions and Estimates to Support Forecast of Future Number of Cleanups

Policy Tools	Current Status	Forecasted with Adoption of Policy Recommendations
<b>Formal Program</b>	4-10 sites receive NFAs per year in last 5 years (Ecology data)	No policy recommendations targeted to this program, so assumption is that it will not significantly change. Note, Prospective Purchaser Consent Decrees are under the umbrella of the formal program, but considered as a separate item for this analysis
<b>Voluntary Cleanup Program</b>	103-153 sites receive NFAs per year in last 5 years (Ecology data)	Calculated ratio of VCP site managers per NFA ranges from 6 to 12 per year. Assuming a staff increase of 25% adds 44 more NFAs per year based on that ratio.
<b>Prospective Purchaser Consent Decrees</b>	Average of 1 PPCD executed per year (Ecology data)	Assume improved program could match Oregon's performance of an average of 8 prospective purchaser agreements executed per year.
<b>Integrated Planning Grants</b>	In the 2009-11 biennium, 5 IPGs were awarded. (Ecology data)	Based on growth of demand for these grants and projected future budget, assumed that 15 IPGs will be awarded per biennium. Note, the award of an IPG does not mean a site is cleaned up, but for this analysis it is assumed that these grants bring new sites into the cleanup process and expedite completion of cleanup.
<b>Bonding MTCA Revenue</b>	Not an existing program	Bonding revenue capacity estimated at \$350 million. The average Remedial Action Grant for the years 2006-2009 was \$3.3 million. Using this average, the bond could fund an additional 104 projects. These projects would be spread over the duration of the bond, which is expected to be 20 years, resulting in approximately 5 projects per year. Alternatively, if the bond were used to fund one major project such as the Duwamish River Cleanup, the remaining funds in the Local Toxics Account would be expected to fund the same number of projects per year.
<b>Area-Wide Groundwater Remediation Grant</b>	Grant program is authorized, but none has ever been awarded (Ecology data).	Assumed that with reforms to this program, up to 3 new sites could enter into the cleanup process per year on average.
<b>Third Party Brownfield Outreach Program</b>	King County Brownfield program used as an example. The projects supported by the program complete on average 1 cleanup, 1 Phase I, and 2 Phase II environmental site assessments per year (King Co. data).	Based on the performance of the King County program, assuming that a larger program would function across the state, assumed the number of cleanups completed per year would triple.
<b>Licensed Site Remediation Professional</b>	Not an existing program.	Based on the experience of Massachusetts and Connecticut (the two states with sufficiently long track record to use for an estimate), it is assumed that the number of cleanups completed currently would increase by 10 times.

## 5.4 Phasing of Implementation

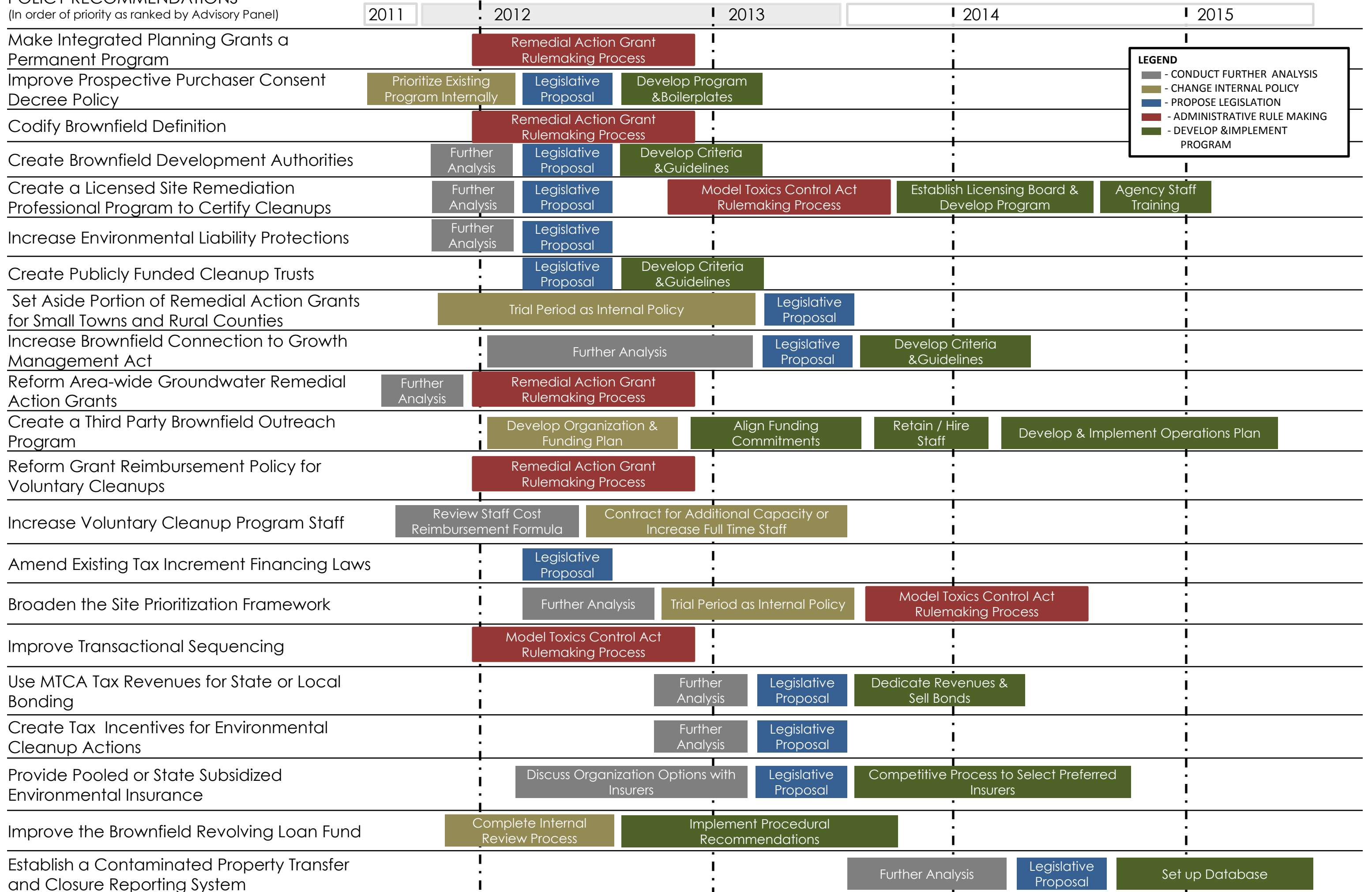
These recommended policy changes fall into two timeframes for implementation: short-term and mid-term (see Figure 5-2). The policies in the short-term category are those that are well-positioned for implementation, either because they have been previously discussed in the legislative or administrative branch or because they can be implemented through Ecology's administrative process. Policies identified as mid-term will likely require two or more legislative sessions to allow for adequate debate and development of the policies, or their implementation may require an extensive administrative rulemaking process.

The state can make immediate progress by implementing the priority short-term recommendations, including codifying a brownfield definition, making integrated planning grants permanent and creating PFCTs. Because of the large potential benefit of some of the mid-term policies, the state should make a concerted effort to initiate the next steps of development to expedite implementation. These mid-term priorities are: PPA reform, LSRP program, and liability reforms.

**POLICY RECOMMENDATIONS**  
(In order of priority as ranked by Advisory Panel)

**IMPLEMENTATION PHASING**

Figure 5-2



## REFERENCES

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CCLR. 2007. Liability relief: a survey of state brownfield programs and recommendations for a progressive California approach. Center for Creative Land Recycling. Unpublished; cited with permission.

CERB. 2010. 2010 biennial legislative report. Community Economic Revitalization Board.  
[http://www.commerce.wa.gov/Downloads/BSD/2010\\_CERB\\_Report.pdf](http://www.commerce.wa.gov/Downloads/BSD/2010_CERB_Report.pdf)

Deason, J. P., G. W. Sherk,, and G. A. Carroll. 2001. Public policies and private decisions affecting the redevelopment of brownfields: an analysis of critical factors, relative weights and areal differentials. Report submitted to: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. <http://www.gwu.edu/~cem/Brownfields/index.htm>.

Ecology, 2002. Memorandum. (Subject:: MTCA environmental remedial action tax exemption) to J. Pendowski, Department of Ecology, from P. Kmet, Department of Ecology. Lacey, Washington. November 7.

Ecology, 2007. Bill Analysis. (SB 5386 Relating to environmental remediation) to V. Van Ness, Department of Ecology and J. Pendowski, Department of Ecology, from P. Kmet, Department of Ecology. Lacey, Washington. January 19.

Ecology. 2010. Model Toxics Control Act remedial action grants: alternative financing evaluation. Publication no. 10-09-043. Washington State Department of Ecology. January.

Ecology. 2011. House Bill 1761 model toxics control accounts ten-year financing plan. Publication no. 11-09-045. Washington State Department of Ecology. May 11.

GAO. 2004. Brownfield redevelopment stakeholders report. GAO-05-94. U.S. Government Accountability Office. December.

Means, J. 2008. Brownfields redevelopment in Washington State: evaluating legal mechanism performance in the brownfield context. Master's thesis. Evergreen University.

MFA. 2010. Brownfield outreach and extension project: summary report. Maul Foster & Alongi, Inc. Vancouver, Washington. August 5.

Paull, E. 2008. The environmental and economic impacts of brownfields redevelopment. Northeast-Midwest Institute.

U.S. Conference of Mayors. 1993–2010. Recycling America's land: A national report on brownfields redevelopment. Vols. I–IX.

U.S. Conference of Mayors. 2010. Recycling America's land: a national report on brownfields redevelopment. Vol. IX.

UW. 2009. Linking toxics cleanup and redevelopment across the states: lessons for Washington State. Washington State Department of Ecology publication no. 09-09-043. University of Washington. February.

Wernstedt, K., L. Heberle, A. Alberini, and P. Meyer. 2004. The brownfields phenomenon: much ado about something or the timing of the shrewd? Resources for the Future.

Wernstedt, K., P. B. Meyer, A. Alberini, and L. Heberle. 2006. Incentives for private residential brownfields development in US urban areas. *Journal of Environmental Planning and Management*. 49(1):101-119.

West Virginia Brownfield Assistance Center. 2010. Helping West Virginia communities turn liabilities into assets: a five year performance review of the West Virginia Brownfield Assistance Center.

# APPENDIX

## DETAILED ANALYSIS OF POLICY TOOLS

