



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# **Model Toxics Control Act Remedial Action Grants**

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## **Alternative Financing Evaluation**

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## **Alternative Financing Evaluation**

by

Toxics Cleanup Program

Washington State Department of Ecology

Olympia, Washington 98504-7600

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## Preface

The Washington State Legislature, through a 2009 budget proviso, directed the Washington State Department of Ecology (Ecology) to study financing alternatives for Remedial Action Grants.

This report meets the requirements of the proviso by examining potential options to finance the large number of projected cleanup projects identified in Ecology's 2009 HB 1761 report, including:

- Capitalizing cleanup costs using debt issuance.
- Capitalizing cleanup costs using environmental insurance.
- Other financial instruments as identified.
- An assessment of the economic benefit and job creation derived from the use of MCTA funds for cleanup.

The options include an evaluation of the alternatives presented along with pro-con arguments for each alternative and are presented without endorsement or recommendation. The adoptions of the alternatives are subject to public policy authorization and legal viability. Ecology entered into an agreement with the Washington Public Ports Association (WPPA) to undertake this analysis. It explores funding options for the cleanup of publicly owned sites throughout the state using MTCA funds. A Steering Committee made up of municipal representatives provided overall direction and input to the consulting team under contract to WPPA. Ecology and WPPA worked in consultation with the Association of Washington Cities and the Association of Washington Counties.

The state uses MTCA funds, generated from a tax on imported hazardous materials, for a range of environmental purposes. Allocation of funds to particular programs is governed, in some cases, by statutory requirements and, in others, by gubernatorial and legislative action. This analysis focuses on the funds allocated to Remedial Action Grants within the Local Toxics Control Account, as depicted below:

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## Acronyms and Abbreviations

AV	Assessed Value
B&O	Business and Occupation
CA	Commutation Account
City	City of Mahtca
Committee	Joint Legislative Audit and Review Committee
Ecology	Washington State Department of Ecology
EIL	Environmental Impairment Liability
GASB	Government Accounting Standards Board
GFT	Grant Funded Trust
GIC	Guaranteed Investment Contract
LIFT	Local Infrastructure Financing Tool
LOCAL	Local Option Capital Asset Lending
LRF	Local Revitalization Financing
LTCA	Local Toxics Control Account
LTGO	Limited Tax General Obligation
MTCA	Model Toxics Control Act
NPV	Net Present Value
PCP	Pentachlorophenol
PLP	Potentially Liable Party
PRP	Potentially Responsible Party
PWT	Pacific Wood Treating
RCW	Revised Code of Washington
RDA	Revenue Development Area
RI/FS	Remedial Investigation And Feasibility Study
	Revolving Loan Fund
SHB	Substitute House Bill
STCA	State Toxics Control Account
TIF	Tax Increment Financing
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
UTGO	Unlimited Tax General Obligation
WPPA	Washington Public Ports Association

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# Summary

## Purpose of the Report

In 1988, Washington voters approved Initiative 97, known as the Model Toxics Control Act (MTCA), Chapter 70.105D Revised Code of Washington. In addition to regulating the cleanup of contaminated sites, MTCA provided a grant and loan program to support local municipalities addressing these potential liabilities. Funds for this program (the Remedial Action Grant program) come from a tax on the first possession of imported hazardous substances to Washington, including petroleum products and pesticides. Over the last 20 years, Remedial Action Grants have been well-utilized by municipalities.

Municipal cleanup projects completed under the Remedial Action Grant program are diverse in nature — ranging from relatively small “dig and haul” projects to large public-works-type projects. An increasing number of Remedial Action Grant cleanups represent the first phase of larger community and economic development projects implemented over multiple biennia and requiring a significant amount of investment. These projects demonstrate the potential for considerable direct and indirect benefits toward building sustainable communities. Environmental cleanup using the state’s MTCA fund has created a platform for job and tax growth. Viewing the state’s cleanup effort as an element of a larger “brownfield” redevelopment lends important additional value to this strategic public investment.

Demand for MTCA funds is increasing. While the grants have supported closure of many sites, a stream of new smaller projects and a growing number of larger, more complex cleanup projects continues. Coupled with the recent downturn in the economy, these trends have created a gap between the availability of funds and the real need. This situation has increased the uncertainty surrounding the future availability of MTCA funds and the subsequent need to use these limited funds more effectively than the traditional cash grant program. As a result, the Washington State Legislature directed the Washington State Department of Ecology (Ecology) to study financing alternatives for Remedial Action Grants. Specifically, the 2009 budget included the following proviso:

“By December 1, 2009, Ecology, in consultation with local governments, shall produce a Remedial Action Grant financing alternatives report. The report shall address options for financing the Remedial Action Grants identified in Ecology’s report titled House Bill 1761, Model Toxics Control Accounts Ten-Year Financing Plan and shall include but not be limited to the following: (a) capitalizing cleanup costs using debt issuance; (b) capitalizing cleanup costs using prefunded cost-cap insurance; (c) other contractual instruments with local governments; and (d) an assessment of overall economic benefits of the Remedial Action Grants funded using the instruments identified in this section.”

This report meets the requirements of the proviso by examining potential options to finance the large number of projected cleanup projects identified in Ecology’s 2009 HB 1761 report, including:

- Capitalizing cleanup costs using debt issuance.
- Capitalizing cleanup costs using environmental insurance.
- Other financial instruments as identified.
- An assessment of the economic benefit and job creation derived from the use of MCTA funds for cleanup.

The options include and evaluation of the alternatives presented along with pro-con arguments for each alternative.

### **History and Trends, 1988 to 2008**

MTCA funds are disseminated at both the state and local levels. The MTCA statute directs 53 percent of the tax revenue to the Local Toxics Control Account (LTCA); the remaining 47 percent is deposited in the State Toxic Control Account (STCA). LTCA funds are allocated through the biennium budgeting process. Approximately 32 percent of this has historically been allocated to Remedial Action Grants. These grants are cash awards that Ecology distributes to local governments for cleanup of contaminated property. The grants typically require a 50 percent local match of the state funds.

Over the last 20 years the state has invested \$345 million through MTCA Remedial Action Grants, matching \$290 million in local government funds to undertake some 242 cleanup projects.

The average cleanup project takes approximately nine years to complete and often bridges four biennium budget cycles.

The average combined project cost over the last 20 years is \$2.9 million with a range of \$600,000 to \$7.8 million. The state match share ranges from \$350,000 to \$7.8 million, with an average grant award of \$1.6 million.

Historically, approximately 70 percent of the Remedial Action Grants funds have been awarded to projects costing over \$2 million. The financial impact of these larger projects is projected to grow in the future. The traditional cash grant program has worked well for smaller projects, but these larger projects inherently have different needs.

In recent years, Remedial Action Grants represent a third of the LTCA's expenditures. Other important uses of the LTCA include Coordinated Prevention Grants that help local governments reduce and prevent solid and hazardous waste and Public Participation Grants to support public participation at cleanup sites or local waste reduction campaigns. LTCA funds have also helped to fund stormwater and septic tank management programs, updates to shoreline management plans, reducing health threats from truck and woodstove emissions, oil spill management, and habitat restoration.



## Looking Forward, 2009 to 2019

In the 2007 session, the Legislature passed Substitute House Bill (SHB) 1761. This legislation directed Ecology to prioritize MTCA funding to clean up hazardous waste sites and prevent the creation of future hazards due to improper disposal of toxic wastes. The law requires Ecology to submit a comprehensive ten-year MTCA financing report to the Legislature, in coordination with local governments that have cleanup responsibilities, by December 20 in even-numbered years.

Ecology completed the first report by December 20, 2008, and submitted it to the Legislature in January 2009. It forms the basis of the projected need in this analysis.

An estimated 1,000 publicly owned sites in Washington require remedial action. Of those, 118 are likely to require future state assistance.

The demand for grant funding has significantly increased over the last decade, and exceeds projected available grant funds by a two to one margin. There is a \$1.029 billion need with a state portion estimated at \$532 million and only \$225 million projected in funds allocated to Remedial Action Grants.

Project size is increasing: for the years 2009 through 2019. Projects under \$2 million will account for 53 percent of the number of cleanup sites but will require only 4 percent of the Remedial Action Grant budget. Larger sites will require 96 percent of the fund.

## The Challenges Going Forward

Ecology, in consultation with local governments through the project's steering committee, identified three major challenges facing the program:

- **Demand** — The number of communities and size of projects requiring grant funding to assist with cleanup have increased over the last decade. Current funding needs exceed available grant resources. Other environmental needs place demands on the MTCA funds as well, and the recent downturn in the economy and state revenues has created additional pressure to appropriate MTCA funds for other uses.
- **Uncertainty** — 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; and cost estimates are often inaccurate because of project complexity. Unlike other state granted projects, grantees assume the legal liability to complete, carry out, implement, and conduct the environmental remediation regardless of the amount of state grant support they receive.
- **Diversity of Sites and Financial Need** — Cleanup sites throughout Washington represent a variety of sizes, costs, complexities, durations, and ultimate use potential. Different sites and site owners have varying needs for state assistance.

## **Financing Alternatives Explored**

### **The Alternatives**

In addition to exploring the option of capitalizing cleanup costs through debt issuance and the purchase of environmental insurance, this report explored a broad range of alternatives. The project's Steering Committee, a survey of existing programs in other states, and the experience of the study team identified these alternatives.

Based on the duration and magnitude of individual projects, various alternatives and/or combinations of alternatives are most effective in a given set of circumstances. While cash grants have been effective historically, the changing nature of cleanup projects requires a set of new administrative and financial tools to maintain the program's success.

### **Debt Issuance**

A portion of the anticipated MTCA revenue could be used to support a stream of debt payments and use the generated bond proceeds to pursue identified remediation projects. The state could issue the debt to provide additional capital funds to undertake more cleanup work or local governments could use MTCA funds to backstop local governments' debt issuance and help support their financial participation in project funding.

#### **PROS:**

1. Generates immediate capital to commit to existing projects. Accumulating a project's total cost at one time facilitates the use of trusts and prefunded insurance products that are discussed later in this report.
2. Accelerates the pace of cleanups, as more "shovel-ready" projects can take place sooner.
3. Protects the integrity of MTCA funds, as debt service pledges commit the use of the funds up front.

#### **CONS:**

1. Commits state resources otherwise available for other uses within and outside the MTCA fund.
2. State issued bonds could reduce overall state bonding capacity.
3. State issued bonds could reduce capacity to fund new projects not identified in the (SHB) 1761 Ten Year funding strategy.
4. Create transaction and interest cost that may be a poor value compared to cash reimbursement policy.
5. Volatility of revenue stream could put ongoing expenditures at risk and may increase interest rates on bonds.

## **Environmental Insurance**

The Legislature amended the state's statutes to allow the use of MTCA funds for environmental insurance. To date, Ecology has not directly participated in an insurance solution. But a limited number of grantees, including the Port of Bellingham and the Port of Anacortes, have purchased policies.

The use of insurance is a complex proposition on the one hand, but offers an elegant solution on the other. Effective insurance products are available on the market and can be tailored to site-specific cleanup circumstances.

### **PROS:**

1. Having the protections of an insurance program in place can incent local governments (grantees) to participate.
2. Cost-cap policies control cost overruns.
3. Prefunding cleanup costs as opposed to reimbursement payment, whether inside a policy or in stand-alone instruments such as trusts, protects the integrity of LTCA funds and assures certainty of availability of funds over biennium gaps.
4. The risk of unknown and unanticipated liabilities is reduced or eliminated.

### **CONS:**

1. Transactional costs may be disproportionate to the size of the project, although pooling of sites can reduce this objection.
2. Insurance products traditionally cover the insured only for ten years.

## **Other Alternatives**

### **Tax Abatements and Credits**

Given the strong correlation between cleanup of sites and their subsequent redevelopment, the use of tax incentives offers real opportunities to encourage local government investment as well as the follow-up private development investment most likely to occur after cleanup. While sales and use tax exemptions and B&O tax reductions have been available in the past, changing economic conditions and a more focused application would improve their effectiveness as a stimulus for economic development.

### **PROS:**

1. Promotes cleanup and redevelopment without drawing down the LTCA, as it provides an additional source of earned revenues to grantees from developments that pay local taxes or that increase the value of property if it is sold.

2. Encourages grantees to undertake cleanup projects more aggressively if their chances of development completion are enhanced by reduced tax cost.

**CONS:**

1. Does not benefit all potential municipally led cleanup projects, particularly those that do not have private development potential or any marginal increase in value to the asset created by the cleanup. If it provides only a neutral value, it is less attractive.
2. Negative impact on the state general fund revenues.

**Tax Increment Financing (TIF)**

In a growing number of states, TIF is used to pay for cleanups, much like infrastructure improvements, relying on the future increased property value to pay back the cleanup 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, traditional TIF tools have been found unconstitutional. However, programs have been developed that begin to capture the increased value. Those programs include Local Infrastructure Financing Tool (LIFT), Local Revitalization Financing (LRF) and Chapter 39 Agreements between local governments.

**PROS:**

1. Like tax abatements, TIF tools incent grantees to pursue cleanups, but in a more direct way because they can actually capture the real marginal tax increase created by remediation and redevelopment of underutilized contaminated sites.
2. Other taxing agencies that would forgo relatively shorter tax increases from the subject property recognize significant long-term tax benefits in the future as an underperforming site is put back on the tax rolls and, in most cases, with a greatly enhanced value.

**CONS:**

The relatively short-term lack of growth in the tax revenues of some tax authorities may be difficult to manage.

**Grant Funded Trusts (GFT)**

Ecology and/or local grant recipients could establish a GFT for projects to receive and hold grant funds in trust.

**PROS:**

1. Protect funds in an independent trust that cannot be re-appropriated for other uses, providing certainty to grantees.

2. Prefunded trusts reduce and likely eliminate accounting concerns on how a liability is booked.

CONS:

A certain level of risk is associated with the viability and safety of a trust's investments. This can be managed with guaranteed investment contracts or conservative investment policies.

### **Consent Decree Conditions**

The consent decree is the court-approved and enforceable commitment to conduct a specified cleanup. Consent decrees contain a timeline for completion of the specified cleanup and could be used to tie the timing of that cleanup commitment to receipt of a Remedial Action Grant.

PROS:

Links Ecology interest and grantee's interest.

CONS:

1. May delay project implementation if grants are not forthcoming and the project is delayed.
2. Increased transactional costs if projects are delayed.
3. Non-grant eligible entities may request similar financial conditions in their consent decrees.
4. Declining availability of grant funds may postpone municipal participation until grant funding improves.
5. Inflationary pressures would increase project costs and state costs during any delay.

### **Brownfield Development Authorities**

The concept of a Brownfield Development Authority is similar to the traditional public development authorities that can be established by local governments. A Brownfield Development Authority could be established to oversee cleanup of multiple contaminated sites. This consideration is independent of phasing a project for regulatory purposes.

PROS:

1. Pooled sites would increase the financial strength of the single sites to secure grantee funding for the local grant match as well as for securing interim funding for cash-flow purposes.
2. Purchasing insurance products jointly will make smaller sites more eligible and overall cost will be reduced.
3. Transactional costs would be minimized as several cleanups could be funded under one agreement.

## CONS:

May create more challenging regulatory pathways to pursue enforcement activities.

### **Cash Grants (Current Program)**

Currently the Remedial Action Grant program is operated and managed on a cash basis and is entirely appropriate in certain circumstances, particularly for smaller projects, under \$2 million, that can be completed within a single biennium.

## PROS:

Provides flexibility for smaller, less complex projects.

## CONS:

Creates uncertainty for grantees and the state for multiple biennia projects and discourages participation of grantees.

### **Job Creation and Economic Benefits**

The forecasted Remedial Action Grant need of \$532 million of the projected \$1 billion in public cleanups over the next ten years potentially could generate an estimated 42,560 long-term jobs. This estimate is based on the average job creation ratio of the three case studies reviewed for this report. Cleanup projects under way in Bellingham, Tacoma and Palouse were analyzed using a model designed for Ecology to estimate financial impacts of redevelopment of contaminated property.

The following findings highlight the potential return on the state's investment in cleanup.

For every MTCA dollar spent there is:

- \$7 created in ongoing payroll value
- \$32 created in business revenue
- \$6 created in new local and state tax revenues

These economic benefits do not include short-term employment for remediation work, infrastructure construction and vertical development. Forecasting possible employment is a function of many factors, including geographic location, nature of the cleanup, density, and projected land use. It does, however, illustrate the value of reintroducing underutilized sites into the economy.

### **In Perspective**

Environmental protection is at the heart of the state's cleanup program. But the economic value and community enhancements have equal positive impact on Washington's quality of life. The alternatives discussed in this report provide a template for the state and local governments to

pursue the creation and use of options to enhance what is already a national model for brownfield redevelopment.

Environmental cleanup efforts in Washington and throughout the nation are recognizing the value of environmental remediation as an opportunity not only to protect our natural resources, but also to improve the economy and enhance our communities. While the primary goal of MTCA always will be cleanup of contamination, in today's world it is important to recognize the benefits to the economy and the state's communities.

Cleanup using the state's MTCA fund has created a platform for job and tax growth, both as a result of the jobs that are created directly from cleanup and as a result of restoring properties to productive use. Viewing the state's efforts as "brownfield" redevelopment lends new meaning to the value of this important public investment.

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# 1 INTRODUCTION

The Washington State Legislature directed the Department of Ecology (Ecology) to study financing alternatives for Remedial Action Grants. Specifically, the 2009 budget included this proviso:

“By December 1, 2009, Ecology, in consultation with local governments, shall produce a Remedial Action Grant financing alternatives report. The report shall address options for financing the Remedial Action Grants identified in Ecology’s report titled House Bill 1761, Model Toxics Control Accounts Ten-Year Financing Plan and shall include but not be limited to the following: (a) capitalizing cleanup costs using debt issuance; (b) capitalizing cleanup costs using prefunded cost-cap insurance; (c) other contractual instruments with local governments; and (d) an assessment of overall economic benefits of the Remedial Action Grants funded using the instruments identified in this section.”<sup>1</sup>

This report meets the requirements of the proviso by examining potential options to finance the large number of projected cleanup projects identified in Ecology’s 2009 HB 1761 report, including:

- Capitalizing cleanup costs using debt service
- Capitalizing cleanup costs using environmental insurance
- Other financial instruments as identified
- A robust assessment of the economic benefit and job creation derived from the use of MTCA funds for cleanup.

The options include and evaluation of the alternatives presented along with pro-con arguments for each alternative.

Ecology awards Remedial Action Grants to local governments for cleanup of contaminated property. The grants typically require a 50 percent local match. Cleanup projects are diverse in nature, ranging from relatively small “dig and haul” projects to large public-works–type projects. Recent amendments to the Model Toxics Control Act (MTCA) create incentives for local governments to integrate cleanup actions with economic development, habitat restoration, and public recreation projects. An increasing number of cleanup projects represent the first phase of larger community or economic development projects that are implemented over multiple biennia.

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<sup>1</sup> ESHB 1244.PI at page 108.

## 1.1 Challenges Facing Remedial Action Grant Program

Washington State is a leader in brownfield site redevelopment because of the availability of the Remedial Action Grants as a dedicated, state-administered revenue stream to stimulate participating local government partners. While this source of funding uniquely defines Washington's brownfield program, three major challenges limit the successful cleanup of additional sites and provide for a significant fund shortfall:

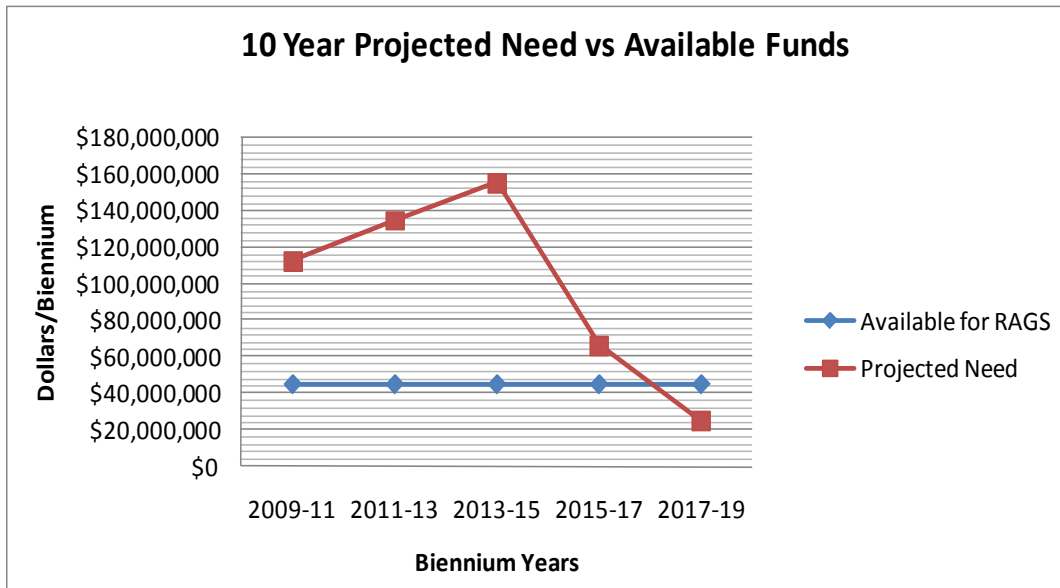
- Increases in demand for limited funds.
- Lack of certainty for Ecology and grantees as it relates to availability of future funds, regulatory, accounting, and cost estimating hurdles.
- Need for flexibility in finance options due to variability in project duration, magnitude, and location.

As a separate but related issue, Ecology's Toxics Cleanup Program is investigating other opportunities for efficiency, including cleanup cost reduction. Ecology is engaged in improving the efficiency of the cleanup process, simplifying and clarifying the MTCA cleanup regulation, and looking into options around scheduling grant awards.

### **Demand for grant funding exceeds the State's available funds**

The demand for grant funding has significantly increased over the last decade, and current funding needs far exceed available grant funds (see Figure 1-1). Ecology's 2008 report to the Legislature, House Bill 1761, Model Toxics Control Accounts Ten-Year Financing Plan, estimated \$1.029 billion in total Remedial Action Grant cleanup needs through 2019. The state portion is estimated at \$532 million and the local portion is \$497 million. Ecology sought \$45 million from the Local Toxics Control Account (LTCA) in the September 2008 agency 2009-2011 biennial capital budget request for the Remedial Action Grant program. The same level is proposed for each biennium through 2019 (a total of \$225 million) in the Office of Financial Management's ten-year capital budget system. However, Ecology received authority for \$37.7 million in new Remedial Action Grant appropriations from the enacted 2009-2011 capital budget. Extrapolating that level through 2019 provides an estimated \$188 million. This represents 35 to 40 percent of the projected Remedial Action Grant funding needs. It is unlikely that the current funding mechanisms will provide sufficient resources for achieving \$1.029 billion in Remedial Action Grant cleanups by 2019 unless oil prices, the main source for revenue under the Hazardous Substance Tax, increase and remain at levels of over \$100/ barrel.

Figure 1-1 Source: HB 1761 Model Toxics Control Accounts Ten-Year Financing Plan, December 2008.



The disparity between demand and availability of funds is largely created by:

- Increased real demand.
- Erosion of available funds.

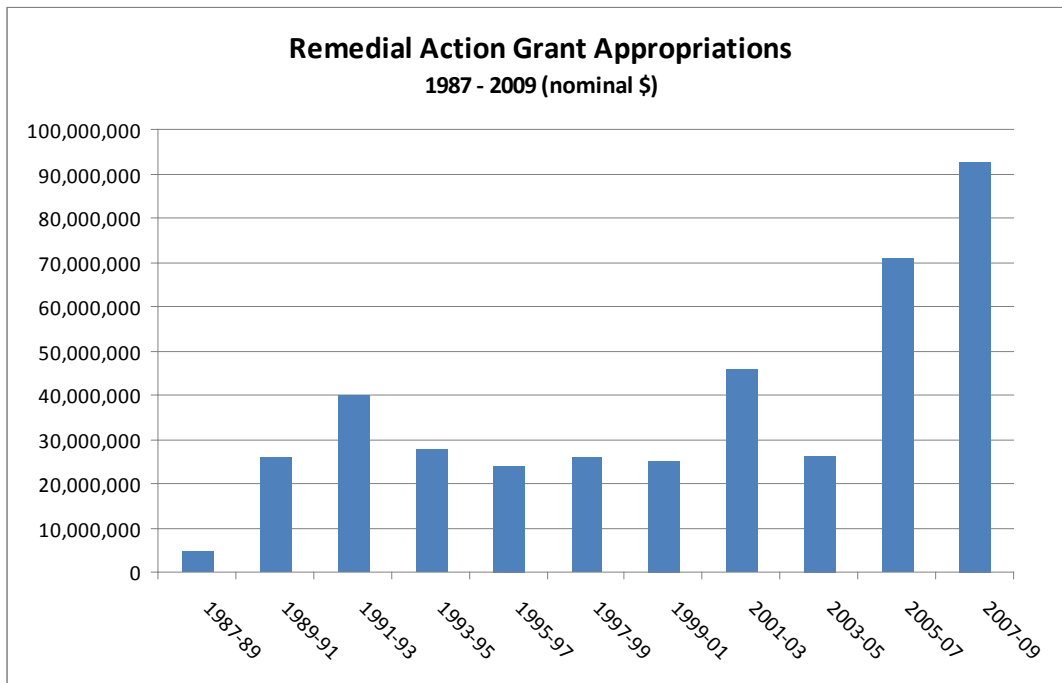
The increased real demand for infill projects has also been driven by the legal and philosophical adoption of the concepts in the Growth Management Act that encourage reuse of historically urbanized areas. This leads to demand for redevelopment of former industrial sites, fueling stations, and similar properties that may have legacy contamination. The increased cost of extending infrastructure versus utilizing existing infill capacity has led to the recognition that public-private partnerships on challenged property are a necessity. These growth issues contribute to increased demand, including as many as 400 new contaminated sites (public, private, and abandoned) being reported to Ecology every year

The portion of overall MTCA funds (including both the Local Toxics Control Account and State Toxics Control Account) available for remedial action grants has declined over the program's history. In FY 2009-2011 that percentage has dropped to 17 percent. This reduction has been due to:

- Competing uses of MTCA funds in general as the demand for a range of environmental needs outside of Remedial Action Grants by local governments and the state has increased.

- The recent strain created by a national and state economy under stress<sup>2</sup>.
- Project cost creep in which the extended time required to get to cleanup implementation grows, causing transactional and inflationary cost increases.
- New scientific information on toxic chemicals has resulted in more stringent cleanup standards for some chemicals. These changes generally result in higher cleanup costs.

Figure 1-2 Remedial Action Grant Appropriations. Source: HB 1761 Model Toxics Control Accounts Ten-Year Financing Plan, December 2008.




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<sup>2</sup> The national economic trends have required that the state utilize limited funds to meet numerous state mandates and public services. In the 2009 legislative session, approximately 83 percent of the Ecology request for Remedial Action Grants was ultimately funded.

## Lack of certainty for funding

There are three primary areas of uncertainty for local governments considering conducting cleanups with Remedial Action Grants: funding across multiple biennia, managing financial liability, and controlling costs.

### 1. Funding Across Multiple Biennia

Remedial Action Grants are subject to appropriation by the Legislature, which creates uncertainty regarding the availability of funds in the future. Ecology could be put into an enforcement position if funding is delayed or cancelled, as a public property owner may not be able to proceed without the availability of a grant.

This situation is a major challenge for municipalities that receive Remedial Action Grants, especially those leading large, long duration cleanups. Table 1-1 lists several of the state's largest environmental cleanups in terms of magnitude and duration. The state partners with local municipalities to fund and oversee these remediation projects. These projects by their nature require a large amount of public funds (magnitude) and multiple biennia (duration) to accomplish. As a result, these are considered some of the state's most complex projects. This list is not meant to be all-inclusive; it is the best estimate available today. Note that these projects are projections based on an industry survey conducted in 2008 and are representative of the outstanding known liability. It should not be assumed that Ecology approved these projects for funding. These estimates are based on the HB 1761 report and are intended for planning purposes. Also note that while the Duwamish Waterway projections are attributed to the Port of Seattle, those funds are partially passed through to other liable local governments.

Table 1-1 Projected Cost Estimates—Projects Over \$10 Million

Site Name	County	Requested 09-11	Requested 11-13	Requested 13-15	Requested 15-17	Requested 17-19	Cost
Lower Duwamish Waterway—Port of Seattle	King	8,000,000	108,403,334	170,040,000	63,576,667	0	350,020,000
East Waterway—Port of Seattle	King	5,290,000	20,000,000	22,000,000	36,000,000	45,000,000	128,290,000
Focus Fidalgo	Skagit	42,886,179	1,410,372				44,296,551
Pacific Wood Treating	Clark	15,424,846	14,700,000	3,100,000	400,000	0	33,624,846
Arkema Manufacturing Area	Pierce	10,246,500	8,058,000	8,745,000	69,000	0	27,118,500

Site Name	County	Requested 09-11	Requested 11-13	Requested 13-15	Requested 15-17	Requested 17-19	Cost
Former Weyerhaeuser Mill	Snohomish		9,460,376	14,365,316	465,072	285,400	24,576,164
T-91—Port of Seattle	King	655,000	6,000,000	8,000,000	8,000,000	0	22,655,000
East Bay Remediation	Thurston	20,580,000	200,000	0	0	0	20,780,000
Gas Works Park	King	1,421,000	18,246,000	60,000	30,000	30,000	19,787,000
Whatcom Waterway	Whatcom	17,240,000	0	0	0	0	17,240,000
GP Mill	Whatcom	7,900,000	8,820,000	0	0	0	16,720,000
South Terminal	Snohomish	0	1,850,000	12,860,000	50,000	0	14,760,000
Occidental Chemical Cleanup—1212	Pierce	0	7,622,000	5,256,000	197,000	0	13,075,000
Marina Dredging—Port of Olympia	Thurston	100,000	9,150,000	3,250,000	0	0	12,500,000
North Marina Redevelopment	Snohomish	4,520,000	2,990,000	3,940,000	790,000	0	12,240,000
Lower Duwamish Waterway	King	7,000,000	3,000,000	1,000,000	1,000,000	0	12,000,000
South Park Landfill	King	8,362,000	2,800,000	596,000	0	0	11,758,000
Marine Terminal Dredging	Thurston	250,000	10,000,000	250,000	0	0	10,500,000

## 2. Managing Financial Liability

The current Remedial Action Grant structure also creates significant financial statement reporting issues for municipal governments because of two main issues:

- Funds are provided through reimbursement.
- Ecology is precluded from committing funds beyond a single biennium.

The Government Accounting Standards Board Statement Number 49 titled *Accounting and Financial Reporting for Pollution Remediation Obligations* (GASB 49) requires that governments generally reflect a known expected environmental remediation cost as a current liability in their financial reports. Most expected remediation costs cannot be capitalized and must be shown as a liability when the range of the expected liability becomes reasonably estimable.

GASB 33 precludes a municipal government from recognizing an amount of any grant that has not been collected during the financial statement reporting period. This precludes inclusion of the amount of pending grants not yet collected and any promises of future biennium grants.

The following example illustrates the complexity of offsetting liabilities with expected recoveries using GASB 49.

### Example for Illustration Only

The City of Mahtca (the City) has, under the terms of an agreed order with Ecology and a Remedial Action Grant, developed a remedial investigation and feasibility study (RI/FS) for an old City-owned motor pool and shop complex. The soils and groundwater have been polluted from years of machinery and vehicle repair, storage of chemicals used by the City parks department, and washing of City fertilizing equipment.

According to the estimates prepared for the RI/FS, the cleanup project is estimated to take four years (two biennia), and the expected additional liability for this project is \$10 million. Ecology has allocated (subject to Legislative appropriation) \$5 million of grants spread over the next four years. Because of financial constraints, the City can only continue with the cleanup if it receives the promised grant funds. The City and Ecology are committed to completing this project, and Ecology has assured the City that it will support the project to the extent funding is available. The City decides to proceed with the project and signs a consent decree legally obligating itself to the cleanup, assuming that Ecology will be able support this multi-biennium project.

The City applies for a grant and is awarded a \$3 million grant for the current biennium. The first \$1 million will be spent during the financial reporting period. The next \$2 million will be spent the following year.

GASB 49 requires that the City book the entire \$10 million cleanup as a current liability. GASB 33 allows the City to offset the liability by the amount of the current grant that is expected to be received during the financial statement reporting period. The City's financial

report reflects the entire expected liability offset by only the \$1 million of the Ecology grant received during the reporting period.

- Expected pollution remediation liability \$10 million
- Received from Ecology during the financial reporting period \$1.0 million
- Liability recorded in City financial statements \$9.0 million

Discussions with bonding agencies indicate that it is unclear what effect GASB 49 estimates will have on a municipality's ability to acquire outside funding for projects. It appears that it is still going to come down to a review of an individual city's financial statements, and the estimate of pollution remediation liabilities using GASB 49 will be determined to be material or immaterial on a case-by-case basis. However, concern over the financial markets' reaction is likely to cause municipal governments to avoid ascertaining the extent of environmental liabilities or avoid undertaking multiyear projects because of the possible negative effect on their balance sheets.

### **3. Controlling Costs**

The experience of the Remedial Action Grant program shows cleanup costs typically exceed initial estimates. These cost overruns further deplete the limited Remedial Action Grant funds. Factors contributing to cost overruns include:

- The iterative nature of the site characterization process that makes technical decisions on subsurface conditions. The full extent and magnitude of contamination may not be known until the cleanup has begun.
- Length of time required for remediation causes cost increases due to inflation. A review of project durations for the last 20 years reveals that from assessment phase to No Further Action determination averages 9 years.
- Changing site conditions and regulatory requirements impact site cleanup and contribute to uncertainty and cost creep. Changing regulatory standards can put tension on Ecology as a regulator and as a funding partner, impacting the balance between these two roles.
- Ecology and grantees tend to add considerable contingency to protect themselves against both inflationary pressure and less than accurate cost estimates. The contingency to offset the risk is assigned to either Ecology or the grantee or both, increasing costs and reducing the reach of available state funds. To the extent that this contingency risk can be transferred, this issue will be mitigated.

### **Need for flexibility due to variability of projects**

Cleanup sites throughout Washington encompass a variety of sizes, costs, complexities, and durations, as well as community and economic impacts. Different sites and site owners have varying needs for assistance. Cleanup costs cover a significant range and sites are located



throughout the state with differing demographics, scale of the local economy, and great variations in redevelopment market demand and value for clean property (see Figure 1-3).

It is estimated that approximately 53 percent of Remedial Action Grant projects forecasted for the next ten years will cost less than \$2 million (see Figure 1-4). However, 96 percent of the projected Remedial Action Grant monies are allocated toward projects that exceed \$2 million in estimated cost (see Figure 1-5).

Figure 1-3 Projected Remedial Action Grand Projects & Cost by County (2009-2019)

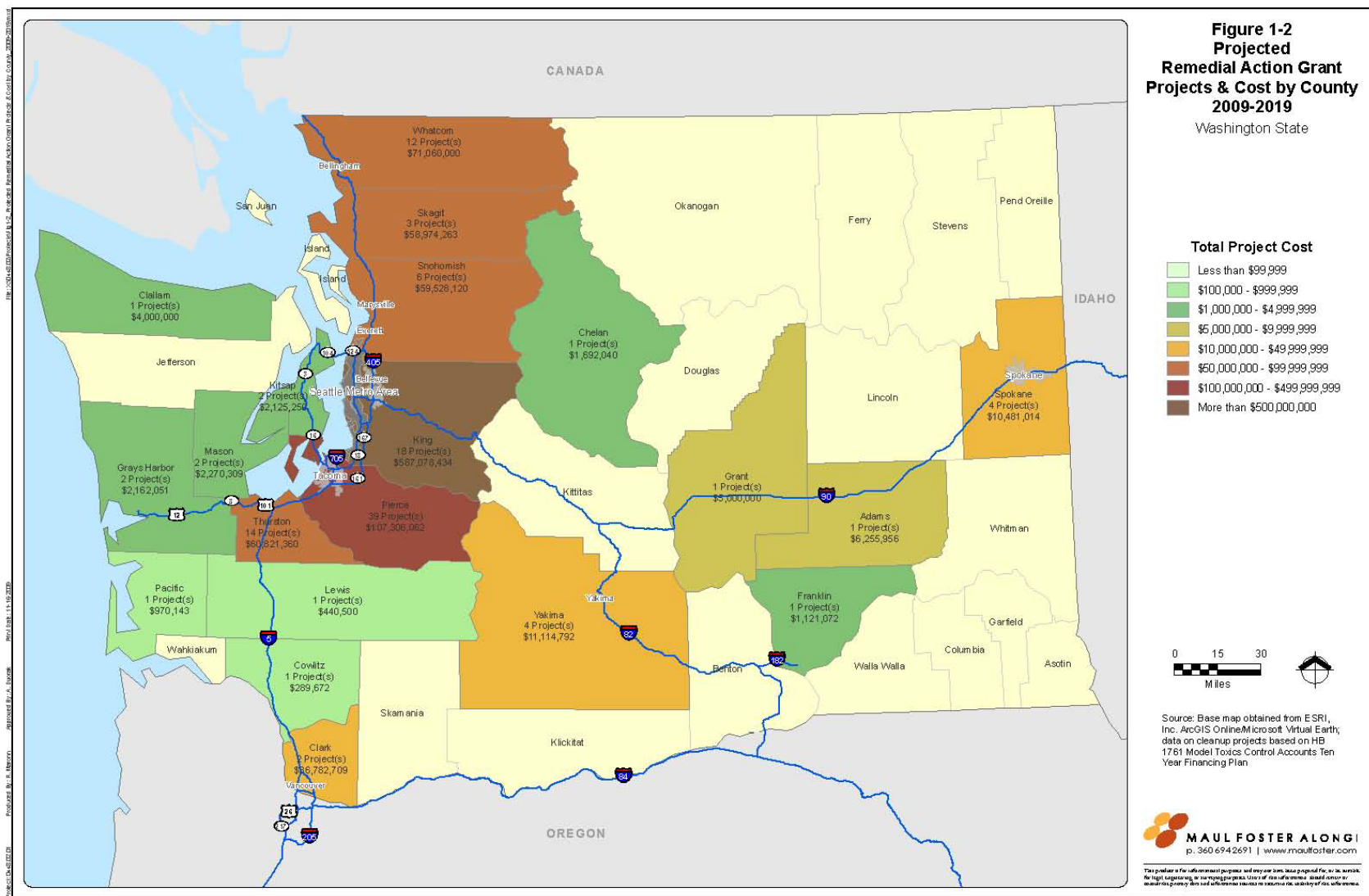


Figure 1-4 Magnitude of RAG Projects 2009-2019

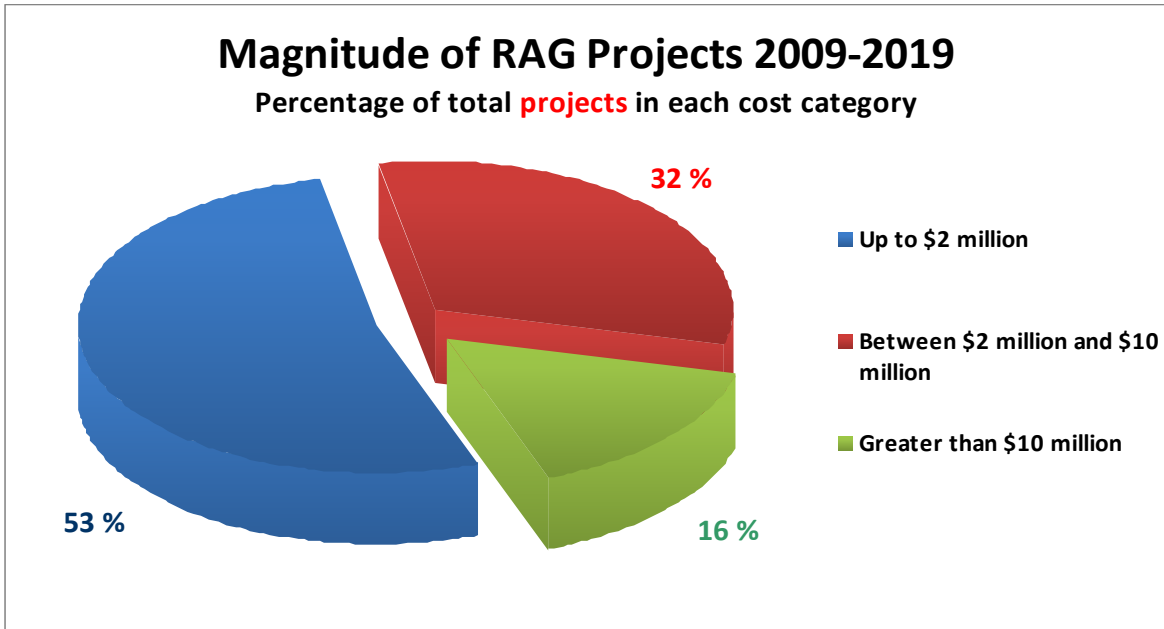
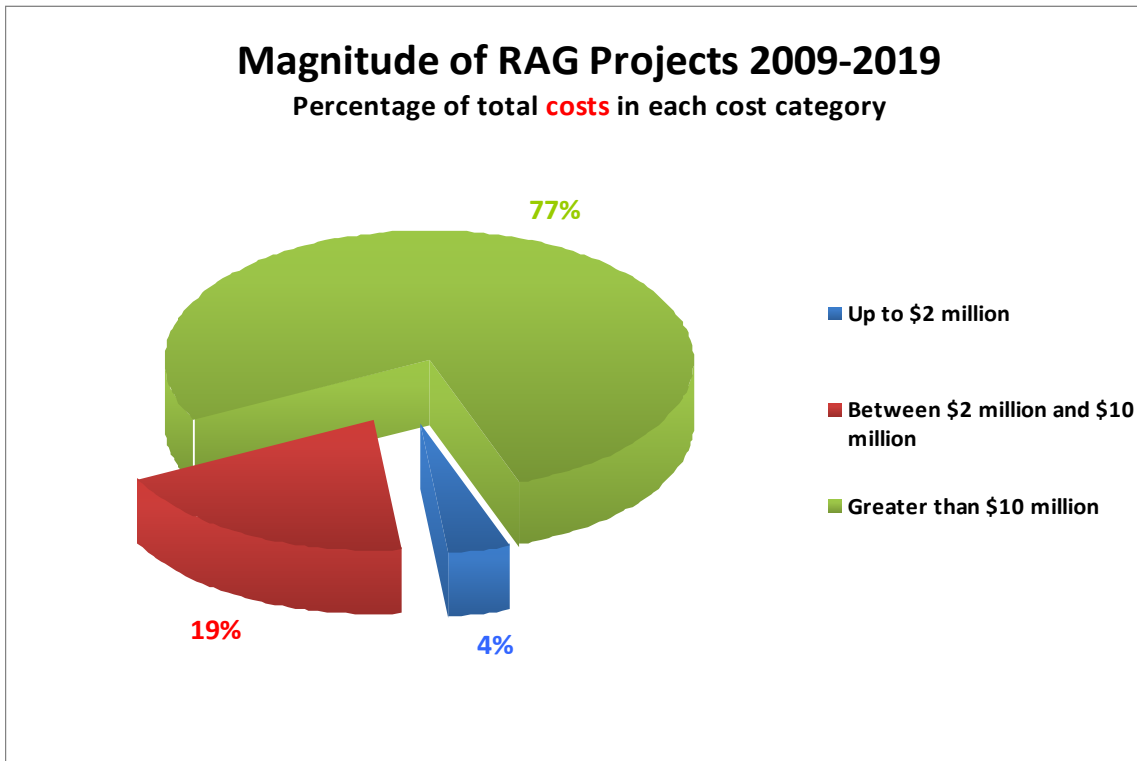


Figure 1-5 Magnitude of RAG Projects 2009-2019



In terms of duration or the length of time to get to a No Further Action required, 37 percent of the projects are projected to be completed in one biennium cycle. However, 94 percent of the funds will be expended on projects that will exceed one biennium (see Figures 1-6 and 1-7).

Figure 1-6 Number of RAG Projects

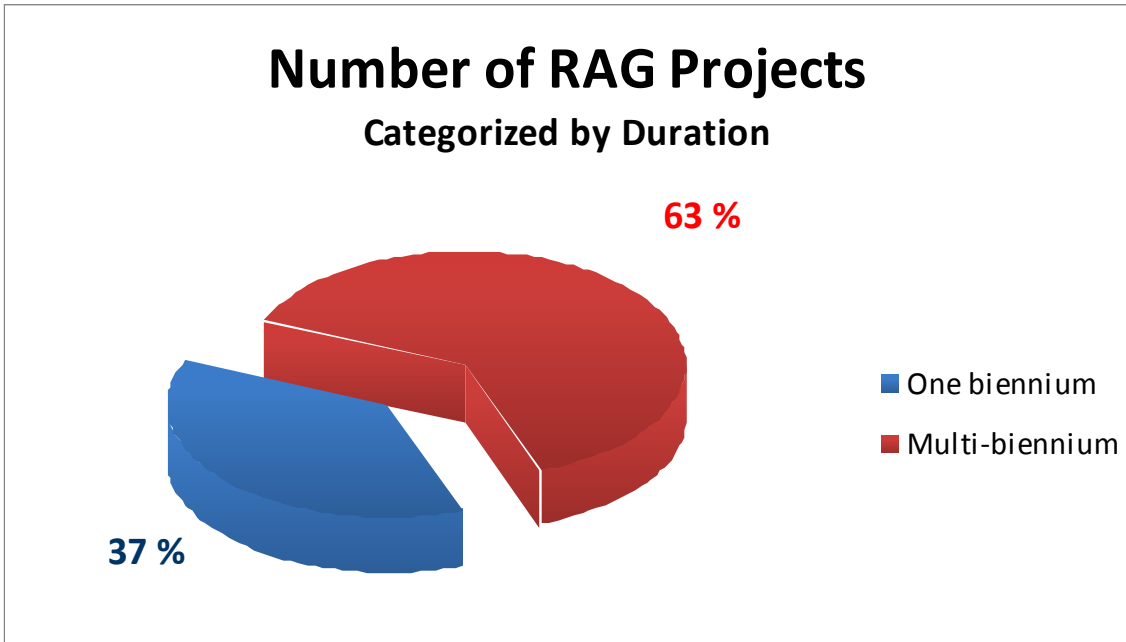
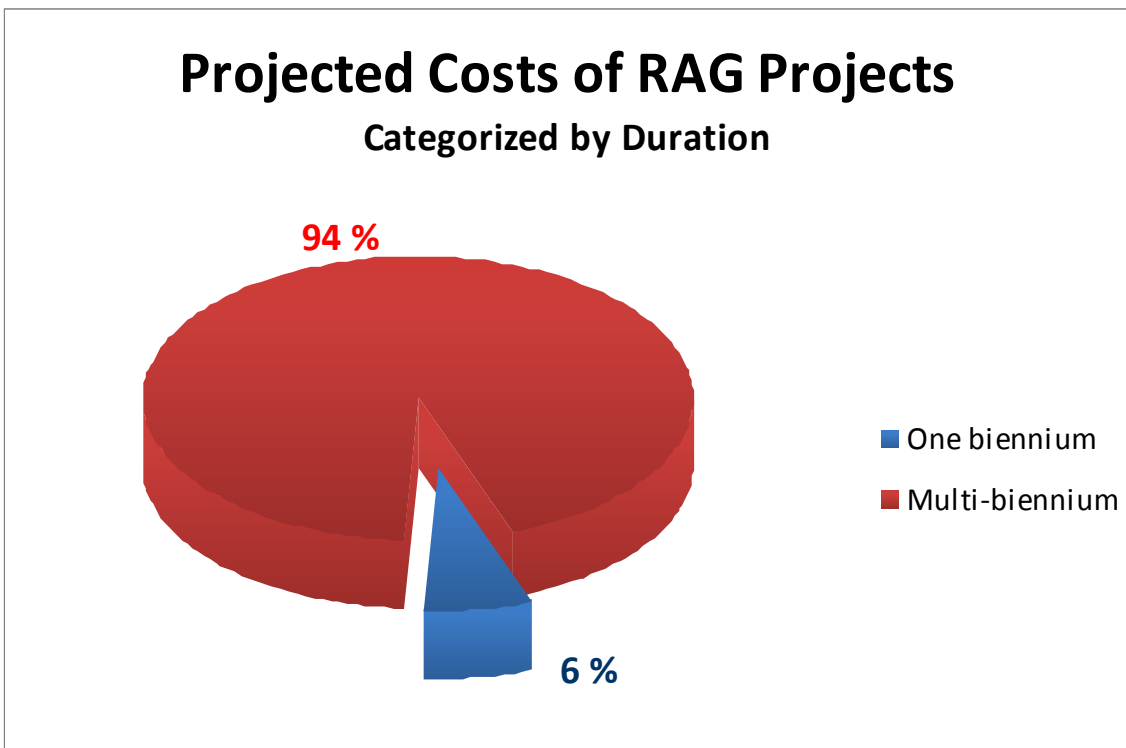


Figure 1-7 Projected Costs of RAG Projects



Likewise, immediate cash flow availability varies between municipalities undertaking cleanups. As Ecology grants follow expenditure of funds, the municipalities need to acquire the cash to manage the project. This approach can become a major liability or barrier to their willingness to go forward, particularly when remediation costs represent a disproportionate amount of an agency's financial resources. Quite often the magnitude of a remedial action is the reason why the site is being addressed by a public agency. Ecology has taken steps to minimize this "cash flow" impact by establishing prompt reimbursement procedures for grants.

Municipalities also vary in the degree to which they are experienced in site remediation and economic development. If a project relies on the commercial value of the site, municipalities can have organizational challenges that impede them from successfully practicing in the commercial world. Some agencies such as ports or development authorities are organized around an entrepreneurial culture and are typically better equipped in terms of experience and staffing to undertake riskier market projects.

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## 2 BACKGROUND AND HISTORY

In 1988, Washington voters approved Initiative 97, known as MTCA, Chapter 70.105D Revised Code of Washington (RCW). MTCA authorized a Remedial Action Grant/loan program to provide financial support to local municipalities for contaminated-site cleanups. The Remedial Action Grant was the top priority among Ecology’s waste grant programs. Earlier, Ecology had also issued Remedial Action Grants under the authority of the 1987 Hazardous Waste Cleanup Act, Chapter 70.105B RCW, which the 1988 law superseded.

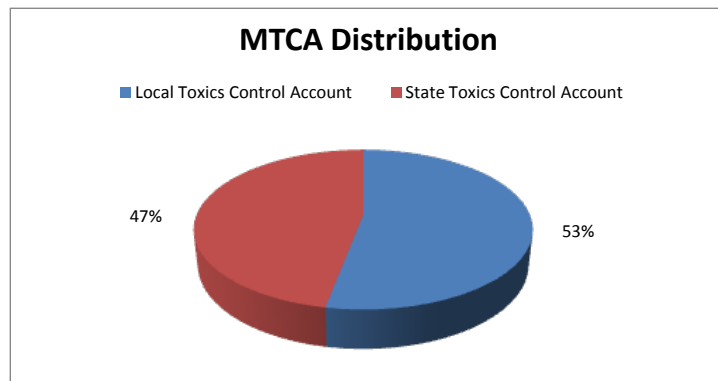
Funds for grants and loans come from a tax on the first possession in Washington of certain imported hazardous substances, including petroleum products and pesticides. The act directs that 53 percent of the revenue from the tax be deposited in the Local Toxics Control Account (LTCA) and 47 percent in State Toxics Control Account (STCA). Within the LTCA, funds are allocated based on the policies of the governor, the legislature, and Ecology. Approximately 32 percent of the LTCA is allocated to Remedial Action Grants. Other programs that receive funding from LTCA include prevention and waste management initiatives.

The act also directs Ecology to “adopt rules for grant issuance and performance.” In May 1990, the state adopted Chapter 173-322 Washington Administrative Code, Remedial Action Grants. This rule created the program described in this report. Ecology amended the rule in 1993 to provide safe drinking water action grants. Another rule amendment was adopted in April 2005 to carry out new grant and loan programs and to improve the operation of existing grant programs.

### 2.1 Revenue Source for Remedial Action Grants

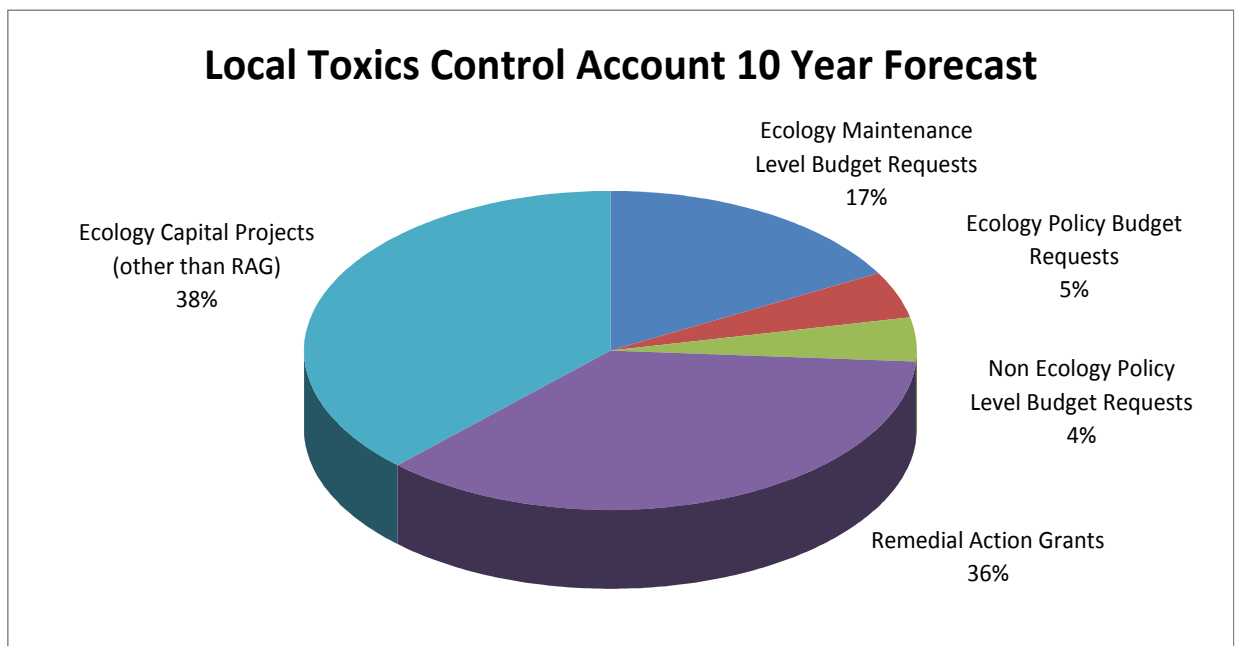
Ecology has managed the funding of Remedial Action Grants using line item appropriations inside the MTCA biennium operating and capital budgets. The LTCA revenue stream from the tax is allocated as follows:

Figure 2-1 MTCA Distribution



The LTCA accounts for expenditures in the Remedial Action Grant program. In recent years, Remedial Action Grants represent a third of the LTCA’s expenditures. Other important uses of the LTCA include Coordinated Prevention Grants that help local governments reduce and prevent solid and hazardous waste and Public Participation Grants to support public participation at cleanup sites or local waste reduction campaigns. LTCA funds have also helped to fund stormwater and septic tank management programs, updates to shoreline management plans, reducing health threats from truck and woodstove emissions, oil spill management, and habitat restoration. Ecology administration accounts for less than 1 percent of the total fund.

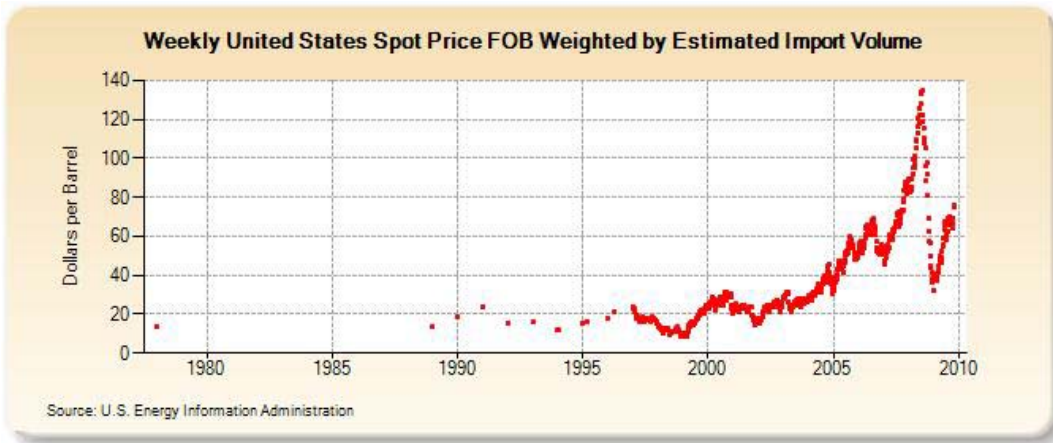
Figure 2-2 Local Toxics Control Account 10 Year Forecast  
 Source: HB 1761 Model Toxics Control Accounts Ten-Year Financing Plan, December 2008



The assumption on oil prices is critical to the projection of anticipated fund revenues, regardless of the use. The nation has experienced wide fluctuations in oil prices over recent years. In the last five years the U.S. Energy Information Administration has tracked oil prices ranging from just over \$40 per barrel to just under \$140 per barrel. Typically, crude oil makes up approximately 44 percent of the retail price of a gallon of gas. The balance of the price is made up by distribution, profit, and taxes, including the MTCA tax. If a barrel of oil is priced at \$70, the MTCA tax accounts for less than one half of \$.01 of the price of crude oil (\$.07/\$1,000 value).



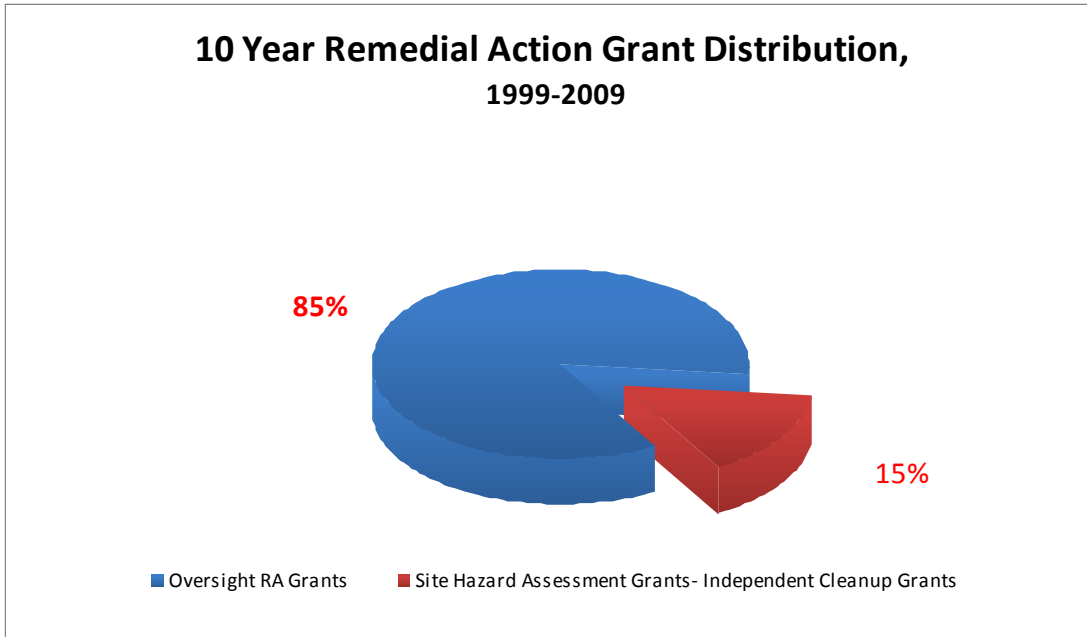
Figure 2-3 Weekly United States Spot Price FOB Weighted by Estimated Import Volume Forecast based on Agency 2009-2011 Budget Requests and information in the 1761 Ten-Year Financing Report to the Legislature



## 2.2 Historical Trends of Remedial Action Grants

The Remedial Action Grant (RAG) program is divided into four primary grant programs that concern environmental cleanup activities: Oversight Remedial Action Grants, Independent Remedial Action Grants, Site Hazard Assessment Grants and Integrated Planning Grants. The Oversight Remedial Action Grant program is the workhorse of Ecology's cleanup grants. To receive an Oversight Remedial Action Grant, the applicant must be a local government that is a potentially liable party (PLP) or owner of a hazardous waste site where cleanup actions are conducted under an order or decree issued under Chapter 70.105 D RCW. Oversight Remedial Action Grants comprise 85 percent of the RAG Program budget and are the focus of this report (Figure 2-4).

Figure 2-4 10 Year Remedial Action Grant Distribution 1999-2009  
Source: Department of Ecology, Toxics Cleanup Program, December 2009



### 2.2.1 Annual Trends in Total Project Costs and State Share

From 1989 to 2009, Ecology awarded 242 Oversight Remedial Action Grants totaling over \$345 million in state match share. The local government match share combined with the state match share has resulted in a combined cleanup investment of over \$636 million over a 20-year period (see Figure 2-5). The average combined project cost over 20 years is \$2.9 million with a range of \$600,000 to \$ 7.8 million. The state match share ranges from \$350,000 to \$7.8 million with an average grant award of \$1.6 million dollars (see Figure 2-6). These figures reflect grant awards and local match but do not differentiate between grants awarded for phases of remedial activities such as RIs, FSs, and cleanup activities. Note that large projects such as the Port of Ridgefield cleanup site may receive multiple grant awards corresponding to different phases or elements of the overall project.

Figure 2-5 20 Year Total, \$636 Million Invested in 242 Oversight Cleanup Grants  
 Source: Department of Ecology, Toxics Cleanup Program, December 2009

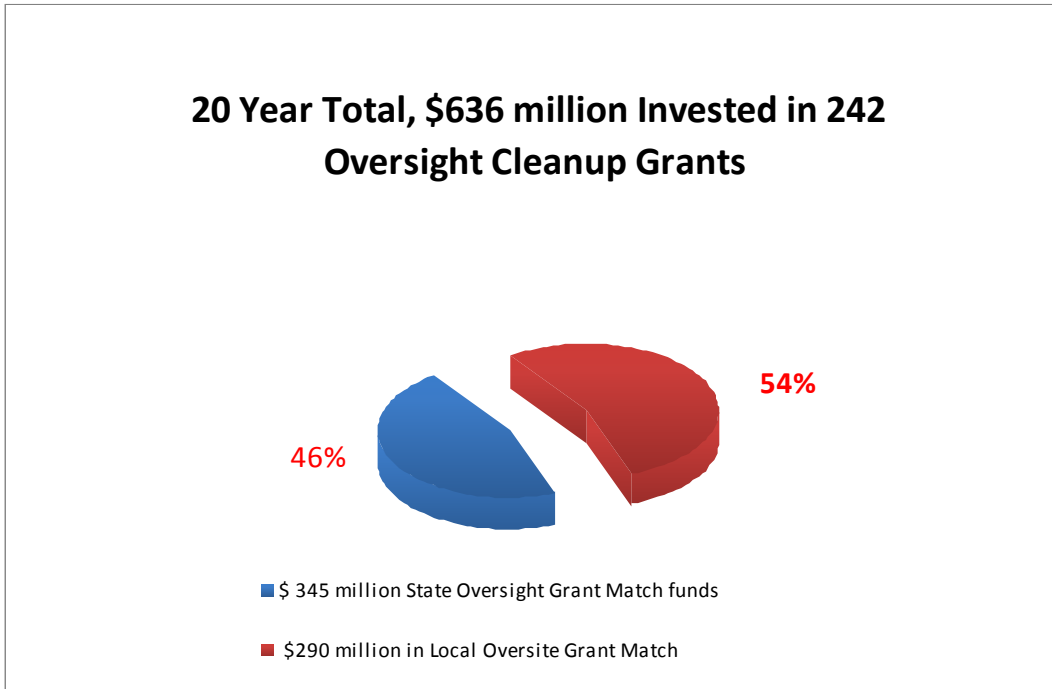
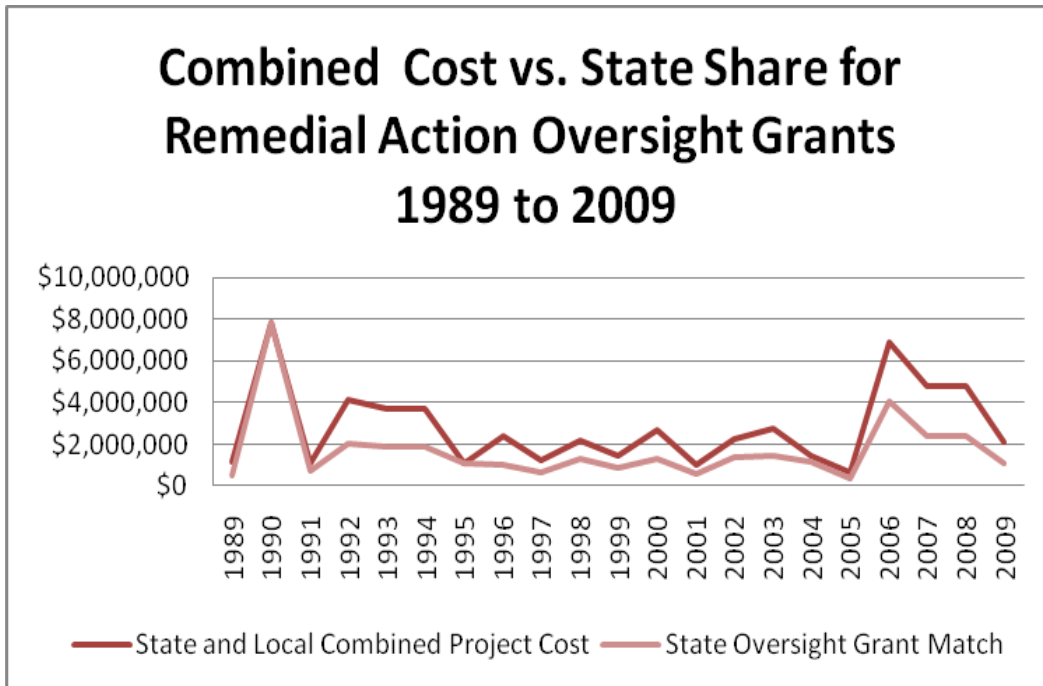
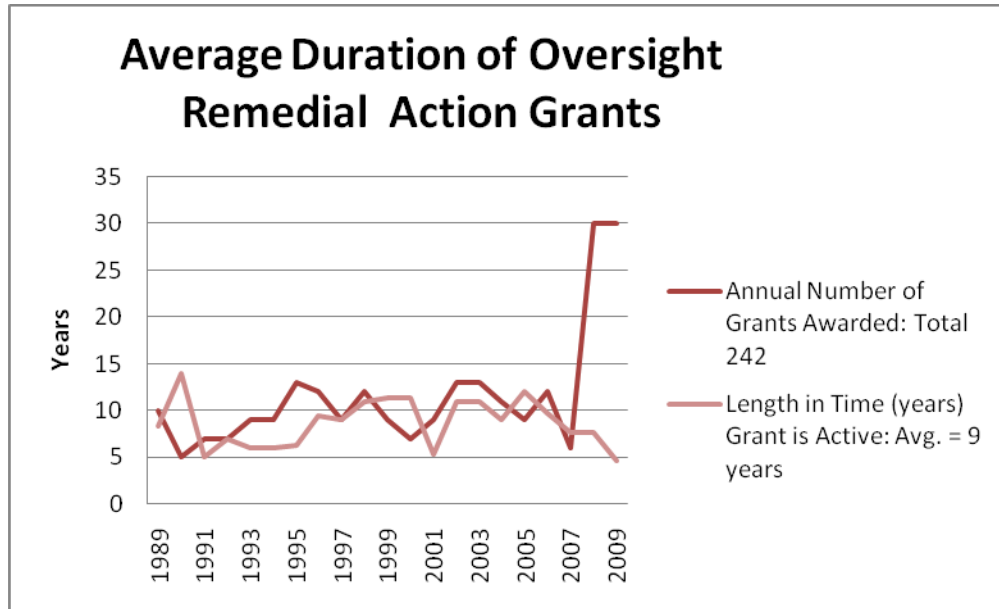


Figure 2-6 Combined Cost vs. State Share for Oversight Remedial Action Grants. Source: Department of Ecology, Toxics Cleanup Program, December 2009



The Oversight Remedial Action Grants typically fund large, complex cleanups that span multiple biennia. The average period of time an oversight grant is active is nine years, within a range of five to 14 years (see Figure 2-7).

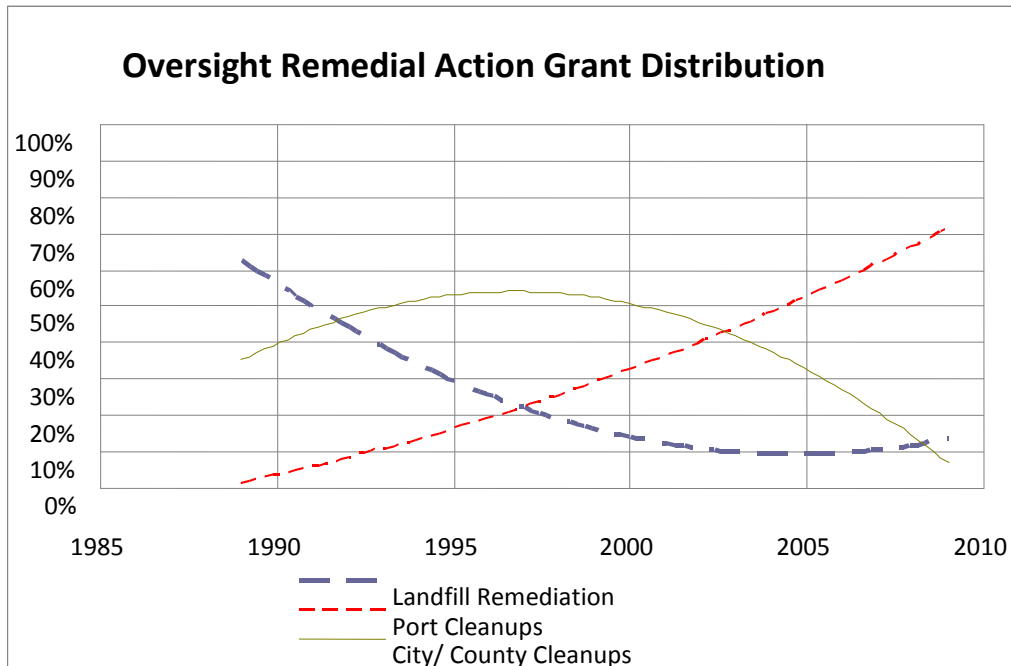
Figure 2-7 Average Duration of Oversight Remedial Action Grants  
 Source: Department of Ecology, Toxics Cleanup Program, December 2009



### 2.2.2 Annual Trends in Proportions Awarded to Primary Recipient Groups

The relative proportion of Oversight Remedial Action Grant awards are characterized by three primary recipient groups: city and county landfill remediation, other city and county cleanups, and port cleanups. From 1989 to 1991, city and county landfill remediation projects were the dominant use of funding. This group has gradually declined to a current average of 16 percent of the award proportion. Grant awards to cities and counties ranged from 40 to 60 percent for annual awards until 2004, then began a decline to the present 33 percent. The proportion of oversight grant awards to ports conducting cleanup actions has increased steadily since 1993 to an overall average of 49 percent and a high of 92 percent in 2006 (see Figure 2-8). This increase in grant awards to ports reflects a general trend and the special cases of large cleanup projects led by the ports of Bellingham, Ridgefield and Seattle. In the case of Seattle, the port is the primary grant recipient for Duwamish Waterway cleanup. The port distributes funds to the City of Seattle and King County.

Figure 2-8 Oversight Remedial Action Grant Distribution Source: Department of Ecology, Toxics Cleanup Program, December 2009



During the 1989 to 2009 time period, Remedial Action Grant funds were allocated throughout Washington. Grants varied in size and duration. The historic need for funding clearly differs from current and projected need in the magnitude of funding required (see Figures 2-9 and 2-10).

### 2.2.3 Oversight Remedial Action Grants with Combined Costs Greater than \$ 2 Million

Approximately 30 percent of all Oversight Remedial Action Grant awards between 1989 and 2009 were relatively small projects with a combined state and local cost share of less than \$2 million. Roughly 70 percent of the projects have combined cost share that exceeds \$2 million (see Figure 2-11). Of that 70 percent population, 25 percent of the combined cost shares are greater than \$10 million (see Figure 2-12). These proportions have been remarkably consistent over the 20-year grants program history. It should be noted that there was a marked increase from 2006 to 2009 where 47 percent of the combined project costs averaged \$22 million. During this period, LTCA revenues were much higher than the historic average making it possible to fund a higher percentage of larger projects

Figure 2-9 Remedial Action Grant Quantity of Oversight Projects & Cost by County (1989-2000)

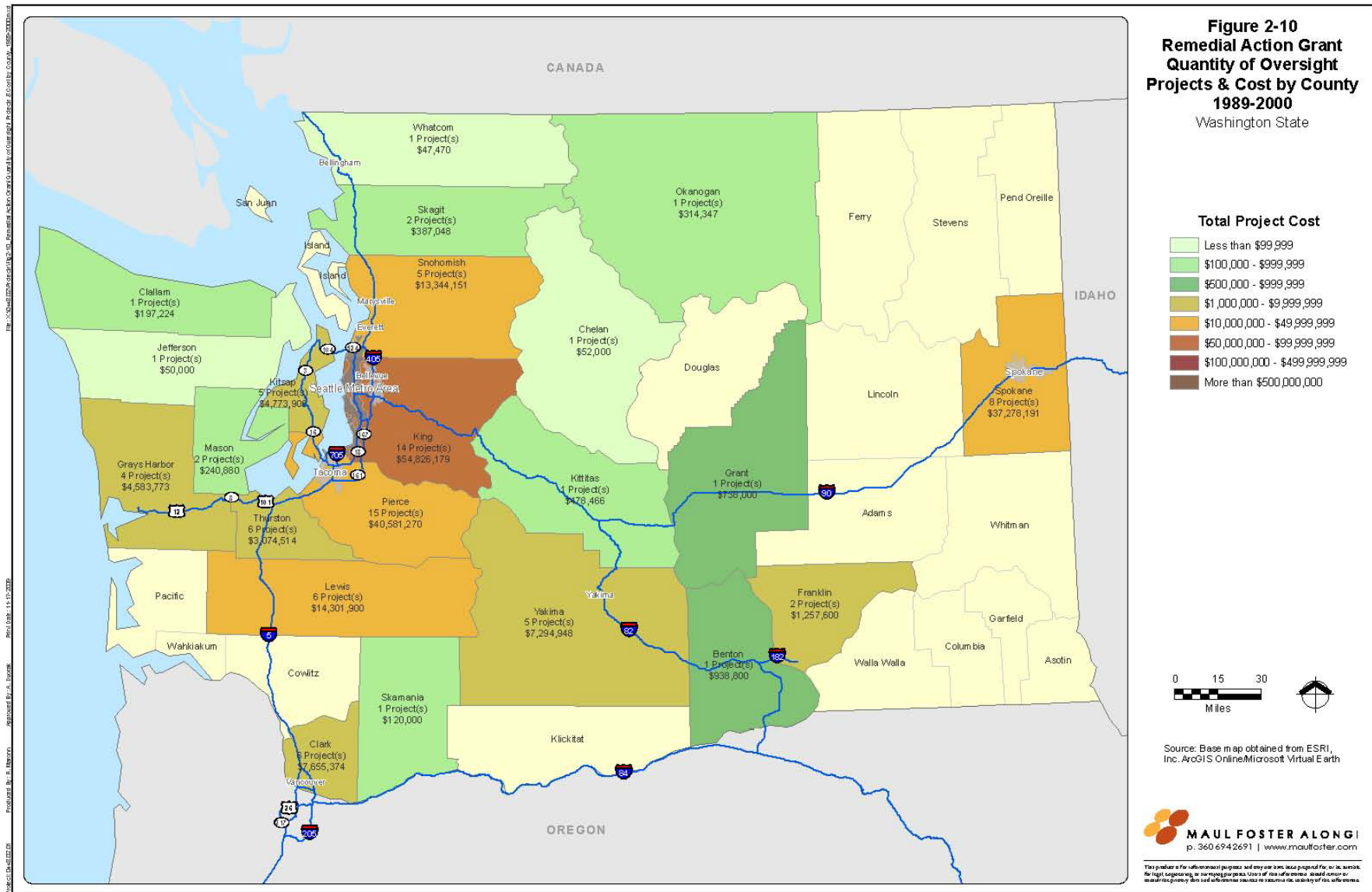
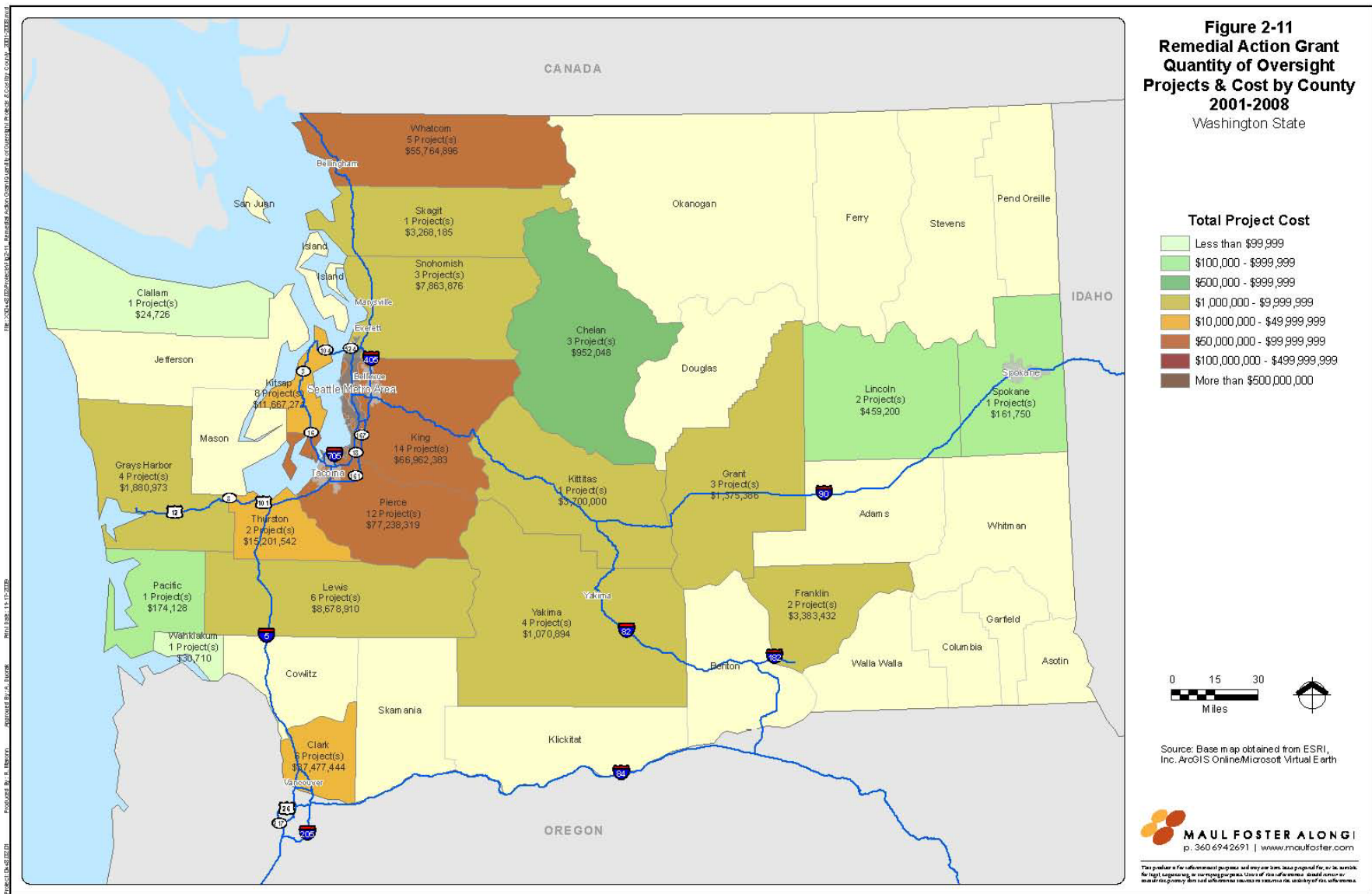


Figure 2-10 Remedial Action Grant Quantity of Oversight Projects & Cost by County (2001-2008) Figure 2-11 Magnitude of Oversight Remedial Action Grants 1989-2009

Source: HB 1761 Model Toxics Control Accounts Ten-Year Financing Plan, December 2008





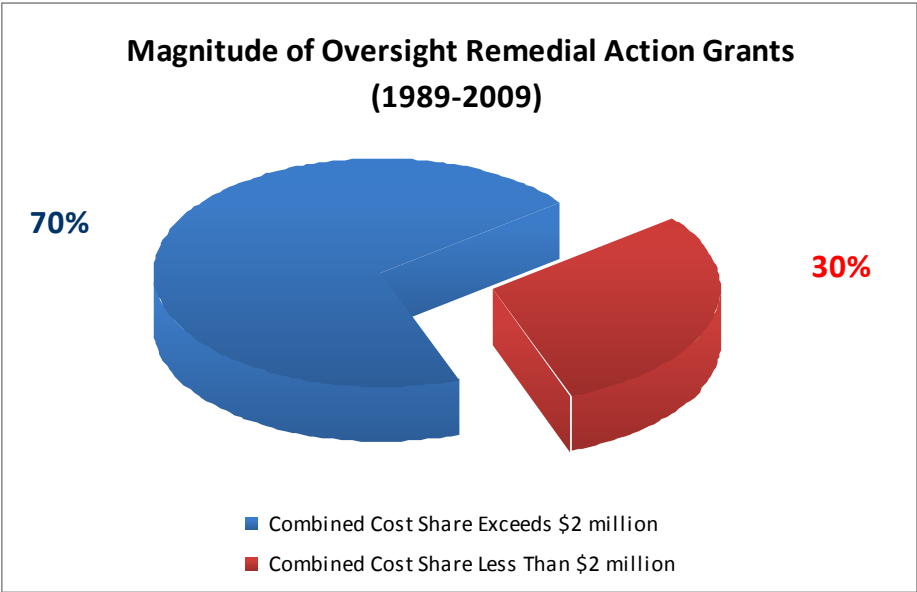
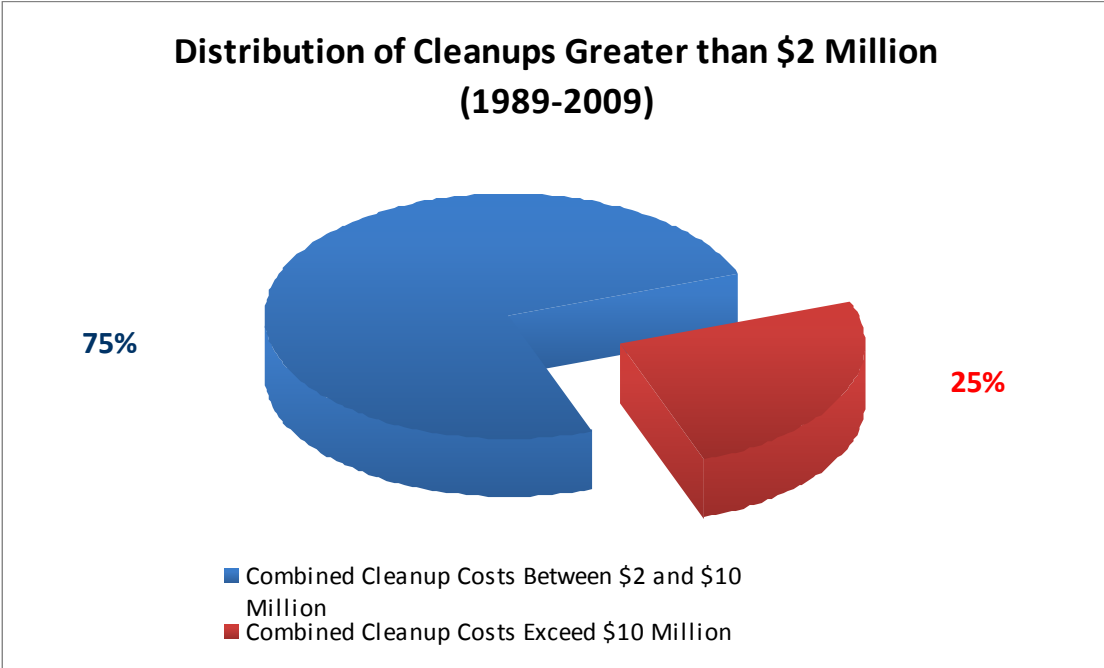


Figure 2-12 Distribution of Cleanups Greater Than \$2 Million 1989-2009  
 Source: HB 1761 Model Toxics Control Accounts Ten-Year Financing Plan, December 2008





## **2.3 SHB 1761: Summary of Ecology’s Report to Legislature**

In the 2007 session, the Legislature passed Substitute House Bill (SHB) 1761, directing Ecology to prioritize MTCA funding to clean up hazardous waste sites and prevent the creation of future hazards due to improper disposal of toxic wastes. The law requires Ecology to submit a comprehensive ten-year MTCA financing report to the Legislature, in coordination with local governments that have cleanup responsibilities, by December 20 in even-numbered years. Ecology completed the first report in December 2008 and submitted it to the Legislature in January 2009.

The SHB 1761 MTCA ten-year financing report intended to provide more planning certainty for the state, local jurisdictions, and ports regarding future hazardous waste cleanup and toxics release and waste prevention needs. The initial report to the Legislature included the following information, as required by the law:

- Identification of long-term hazardous waste cleanup needs for local governments and projections of future costs for programs and activities funded under the LTCA
- Identification of the projected remedial action needs for orphaned, abandoned, and other cleanup sites eligible for funding from the STCA
- Identification of projected solid and hazardous waste planning, prevention, reduction and recycling, and solid waste facility compliance and enforcement needs eligible for funding from LTCA and STCA
- Long-term projections of the remedial action need, cost, revenue, and capital reserve estimates for both the LTCA and the STCA
- Ranked lists of remedial action projects under both accounts

### **2.3.1 2009–2011 Budget and Downturn in Economy**

The data and information in Ecology’s 1761 report were collected and analyzed before September 1, 2008. Consequently, it represented the needs and MTCA financing plans as they were known before the major downturn in the economy. The report did reflect Ecology’s 2009-2011 biennial budget submittal, but not the Governor’s 2009-2011 budget proposal or the November 2008 Department of Revenue forecast, which significantly reduced MTCA revenue projections for the 2009-2011 biennium.

### **2.3.2 Ten-Year Financing Report Contents**

The report included a summary of assumptions that guided its development; background information on MTCA; and a high-level summary of the ten-year financing plans for the STCA and LTCA and other MTCA financing and budget information, as well as detailed Remedial Action Grant, Safe Soils Remediation, Orphaned and Abandoned Site Cleanup, and Puget Sound Aquatic Cleanup site project lists. The report appendix included a summary of Ecology’s November 2009 Puget Sound Initiative and Remedial Action Grant \$100 Million bond proposal.

Ecology's report presented information in three major sections: cleanup, prevention and waste management.

- Cleanup — activities that remove or immobilize hazardous substances at contaminated sites, keep hazardous substances out, and provide opportunities for habitat restoration, economic development, and public recreation.
- Pollution prevention — activities that focus on changes to process, practice, materials, and energy to minimize or eliminate the creation of hazardous waste or use of toxic chemicals.
- Waste management — activities that focus on making sure toxic chemicals and hazardous wastes are safely stored, treated, recycled, or disposed of properly.

Ecology provided specific information for major activities within each section, including ten-year needs assessments, program findings and conclusions, and financing plans.

## **2.4 Recent Changes in Conditions for Remedial Action Grants**

The 2007 Legislature passed House Bill 1761, which added new strategies to cleanup sites quickly and to encourage redevelopment of properties where contamination has hindered or precluded reuse. These added strategies encourage partnering with local communities and liable parties for cleanup and property reuse. Use of these strategies will help ensure a healthy environment and vibrant, sustainable communities for future generations.

Specifically, the director of Ecology or his/her designee may alter grant-matching requirements to create incentives for local governments to expedite cleanups under the following conditions:

- Funding would help prevent or reduce unfair economic hardships imposed by the cleanup liability.
- Funding would create opportunities for new substantial economic development, public recreation, or habitat restoration that would not otherwise exist.
- Funding would create an opportunity that otherwise would not occur for acquiring and redeveloping vacant, orphaned or abandoned property under RCW 70.105.D.040(5).
- Additional strategies that may be used are:
  - The use of outside contracts to conduct necessary studies.
  - The purchase of remedial action cost-cap insurance, when necessary to expedite multiparty cleanup efforts.
  - Environmental insurance can be an important tool to limit liability and risk associated with the discovery and cleanup of contamination. Insurance policies may be an eligible expense if necessary to help acquire property for planned cleanup and reuse. Policies

such as Cleanup Cost Cap and Pollution Legal Liability, or a combined policy of the above, may be eligible.

## **2.5 Current Fiscal Policies of the Remedial Action Grant Program**

Remedial Action Grants and loans are provided on a cost-reimbursement basis. Grants are contingent on the availability of appropriated funding. The fact that a local government is eligible or has received funding for initial phases of remedial action is no guarantee of continued funding. A separate grant agreement will be written for each major phase of remedial action and for discrete tasks and near-future time frames.

Ecology will maintain the budget total after it is set. Ecology will consider grant amendments to change the length of the agreement or reorganize the budget. Ecology will consider requests for increases in the total grant funding to that site, if the cost of remedial action increases. However, Ecology does not promise or guarantee such amendments.

## **3 ANALYSIS OF ALTERNATIVE FINANCE STRUCTURES AND STRATEGIES**

To meet the requirements of the 2009 budget proviso, a Steering Committee convened to explore the range of financial alternatives that the State of Washington could employ to continue and expand environmental cleanups supported by Remedial Action Grants. The Steering Committee included Ecology staff, municipal governments and public ports. This study explores and evaluates an array of financial mechanisms and strategies, developed from a survey of other states' and local experience, against identified goals and performance criteria. This research and analysis, a review of historical and projected need, and Steering Committee input provide the basis for the evaluation of alternative mechanisms presented in the final section of this chapter.

### **3.1 Goals and Evaluation Criteria**

The Steering Committee established the following goals against which alternatives will be evaluated.

**Goal 1: Leverage and extend reach of available LTCA funds within MTCA.**

**Goal 2: Reduce risk and provide more certainty.**

**Goal 3: Ensure flexibility within the program and promote equity in the distribution of funds.**

In addition to comparing the ability of the alternatives to meet the goals, the mechanisms are evaluated using the following criteria.

#### **Criterion 1: Market availability of the alternative**

Given the high capital demand of cleanup projects, costs of some alternatives vary slightly. These products may include environmental insurance or debt instruments and can result in significant costs to both the state and the grantee. It is necessary, however, to balance those costs with incurred benefits.

The commercial nature of debt instruments as well as insurance products can be dramatically influenced by the application. Using the right market product in the right situation will minimize costs.

#### **Criterion 2: Feasibility and steps to implement (ease)**

The alternatives being explored may require amendments to existing statutory structure, administrative guidance, or market acceptance (in the case of insurance and indebtedness). This criterion evaluates the challenges to implementing the use of new alternatives.

#### **Criterion 3: Cost of implementation**

Different approaches to financing projects have different associated transactional costs. This criterion will qualitatively evaluate those costs for each alternative. The significant issue to balance is the transfer and/or acceptance of financial risk against the cost to implement.

#### **Criterion 4: Financial risk and benefits**

The financial alternatives play different roles in ultimately allocating risk and potential costs. That allocation may impact grantees and the state in opposing ways, or it could shift the risk to a third party, thus benefiting both public parties. For example, if Ecology assures grantees that it will fund all cost overruns, then that risk shifts to Ecology from the grantee and may put the parties at odds. Likewise the benefits of a project may accrue to the state in greater proportion than to the grantees.

#### **Criterion 5: Administrative impacts of pursuing an alternative**

The transactional costs associated with different financial approaches vary. This criterion will evaluate those costs qualitatively to both the grantees and the state using the industry's experience.

### **3.2 Review of Cleanup Programs in Other States**

Innovation in financing and promoting cleanup and redevelopment of contaminated sites is occurring through state-level cleanup and brownfield programs across the country. Eleven state brownfield programs were surveyed to inform this study's assessment of alternative financial mechanisms to promote site investigation and cleanup. As with Washington State, each of the state brownfield programs is adapting to the pressures of decreased budgets and the decline in the real estate market. The states have developed a number of programs to provide financial tools for contaminated site assessment, cleanup, and redevelopment (see Table 3-1). An overview of these different types of programs and a discussion of each of these individual states are presented in detail in Appendix A.

Few states match the financial resources of Washington's Remedial Action Grant program to support local government involvement in site assessment and cleanup. Other states with large grant and loan programs for local governments, including New York and Michigan, have been funded with bond initiatives. In those states, the bond funds are nearly exhausted and there is no current or pending funding mechanism to replace them. The significant decrease in funds and increase in demand for these programs underscores the importance of Washington's MTCA tax and the importance of long-term financial planning.

Table 3-1 State Cleanup and Redevelopment Financial Program

State	Grants	Loans	Tax Credits	Tax Increment Financing	Area-Wide Programs	Insurance	Loan Guarantees
California	x	x		x			
Connecticut	x	x	x	x	x	x	x
Florida			x		x		x
Massachusetts	x	x		x		x	
Michigan	x	x	x	x	x		
New Jersey	x	x	x	x	x		
New York	x		x	x	x		
Ohio				x			
Oregon	x	x				x	
Pennsylvania	x	x		x		x	
Washington	x	x		<b>*3</b>		<b>*4</b>	
Wisconsin	x	x	x	x	x	x	x

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<sup>3</sup> Modified versions of tax increment financing are available through Local Revitalization Fund.

<sup>4</sup> Authority for use of insurance mechanisms provided in statute, but has not been used.

### 3.3 Financing Alternatives

Based on the national survey of states with robust cleanup programs and local experience in managing and financing remediation projects, the following alternatives have been further defined within a Washington State context. The considered alternatives, described below, are grouped according to the study goals they address.

Table 3-2 Alignment of Alternatives with Goals

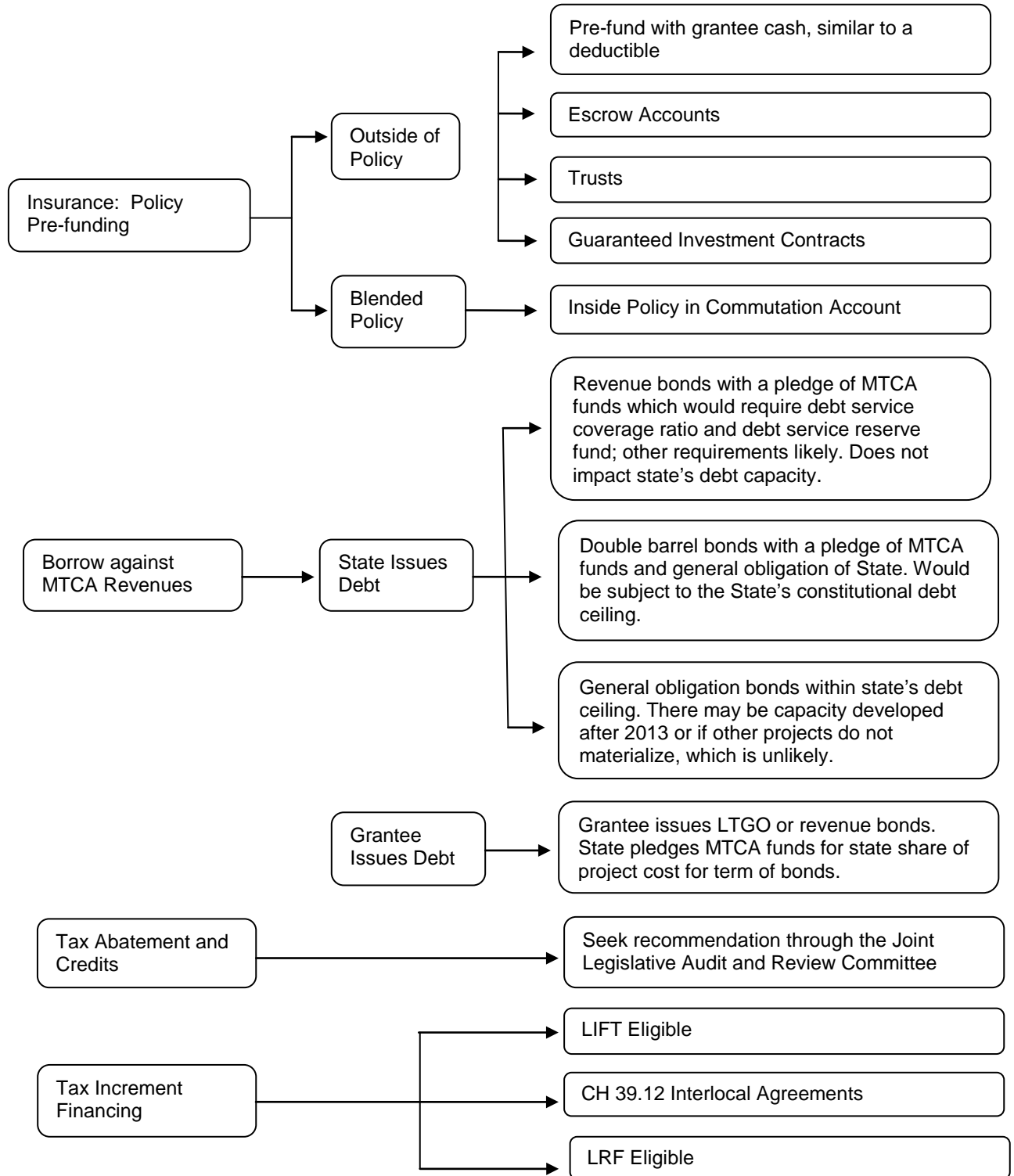
<b>ALTERNATIVES</b>	Leverage and Extend Funds	Reduce Risk and Provide Certainty	Ensure Flexibility and Promote Equity
Debt Issuance	●	●	●
Environmental Insurance	●	●	●
<b>OTHER ALTERNATIVES</b>			
Tax Abatement and Credits	●	○	●
Tax Increment Financing	●	○	●
Grant Funded Trusts	○	●	●
Conditioned Consent Decree	○	●	○
Cash Grants	○	○	●
Cash Flow Timing / Investment Letter	○	●	●
Brownfield Development Authority	●	●	●

- Does Not Address
- Partially Addresses
- Does Address

### 3.3.1 Goal 1: Leverage and Extend Remedial Action Grants

The alternatives that best align with this goal include issuing bonds backed by the MTCA revenue stream, providing tax incentives, authorizing tax increment financing (TIF), and establishing environmental insurance programs (see Figure 3-1).

Figure 3-1 Alternatives that Best Address Goal to Leverage Funds





### **3.3.2 Debt Issuance**

A portion of the anticipated MTCA revenue could be used to support a stream of debt payments and use the generated bond proceeds to pursue identified remediation projects. 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 Governor and Legislature did not support the proposal in the enacted 2009-2011 budget.

Borrowing would improve the funding in three areas: (1) in extending<sup>3</sup> the availability of MTCA funds as a primary source of project funding; (2) as a tool to assist grantees in bridging short-term cash flow needs, as they must first pay for cleanup activities then seek reimbursement from the MTCA program; and (3) to assist grantees in borrowing longer term to fund projects relying on MTCA funds.

### **3.3.3 Debt Financing Background**

Municipal bonds are debt instruments issued by state and local governments for the purpose of financing capital projects. When bonds are issued, the issuer pledges to repay the bonds through a specific revenue stream (revenue bonds) or through taxes and other general revenues (general obligation bonds).

#### **3.3.3.1 Local Government Debt Limits**

In Washington, local governments are not statutorily limited as to the amount of revenue debt they can acquire. The practical limitation is one of being able to make debt service payments and provide for debt service “coverage.” Coverage refers to an amount of net revenues in excess of the required debt service payment that must be available. The coverage requirement is driven primarily by investor demand — how much coverage is needed to make an investor feel comfortable that the issuer will be able to pay its obligations and provide for maintenance of its assets. For example, a typical water revenue bond would have a coverage requirement of 1.25 times. So if annual debt service is \$100,000, an issuer would have to have \$125,000 of net revenue available to pay debt service. Revenue bonds are typically used for projects that generate revenue, such as water/sewer/storm/power utilities.

However, the State Constitution does limit the amount of general obligation debt local governments can incur. There are two types of general obligation debt: limited tax (LTGO) and unlimited tax (UTGO). With LTGO debt, a local government pledges its full faith and credit — that is, it will collect taxes sufficient to make debt service payments. This debt service is typically paid from the issuer’s regular property tax levy. If the issuer chooses to approach the voters for a new, or excess, property tax levy, the government can issue UTGO bonds, which are repaid by this new tax levy. In order to gain passage of the levy, 60 percent of the voters must approve the project and voter turnout must equal at least 40 percent of the number of voters in the previous general election. Debt limits for a variety of governments are established under Article VIII of the State Constitution and RCW 39.36.020.

### 3.3.3.2 State Debt Limits

General Obligation Debt Limitations. With certain exceptions noted below, the amount of state general obligation debt that may be incurred is limited by a constitutional restriction (Article VIII of the Constitution and RCW 39.42.060). The constitutional debt limitation is summarized as follows:

(i) The Constitutional Limitation. Under Article VIII, Section 1 of the State Constitution, new general obligation debt may not be issued if the new debt would cause maximum annual debt service on all thereafter outstanding general obligation debt to exceed 9 percent of the arithmetic mean of general state revenues for the preceding three fiscal years. Excluded from the calculation are the following types of general obligation debt:

(a) Debt payable primarily from excise taxes levied on motor vehicle fuels, income received from the investment of the permanent common school fund, and revenue received from license fees on motor vehicles

(b) Debt that has been refunded

(c) Debt issued after approval of both houses of the Legislature and a majority of those voting in a general or special election

(d) Debt issued to meet temporary deficiencies in the State Treasury

(e) Debt issued in the form of bond anticipation notes

(f) Debt issued to fund or refund debt of the State Building Authority (no longer in existence)

(g) Debt issued to pay “current expenses of [S]tate government”

(h) Debt payable solely from the revenues of particular public improvements (revenue debt of the state)

(i) Any state guarantee of voter-approved general obligation debt of school districts in the state

“General State revenues” is defined for purposes of the constitutional limitation as including all state money received in the State Treasury from each and every source whatsoever, with certain exceptions that include (i) fees and revenues derived from the operation of any facility; (ii) earmarked gifts, grants, donations, and aid; (iii) money for retirement system funds and performance bonds; (iv) money from trust funds, proceeds from sale of bonds, or other indebtedness; and (v) taxes levied for specific purposes.

Securitizing MTCA Revenues It is possible for the state and local governments to borrow for projects related to environmental remediation as individual governments, or they could pool their resources. The benefit of borrowing the money up front is that the local governments would then have the resources needed to enter into long-term contracts to provide for the remediation of their properties.

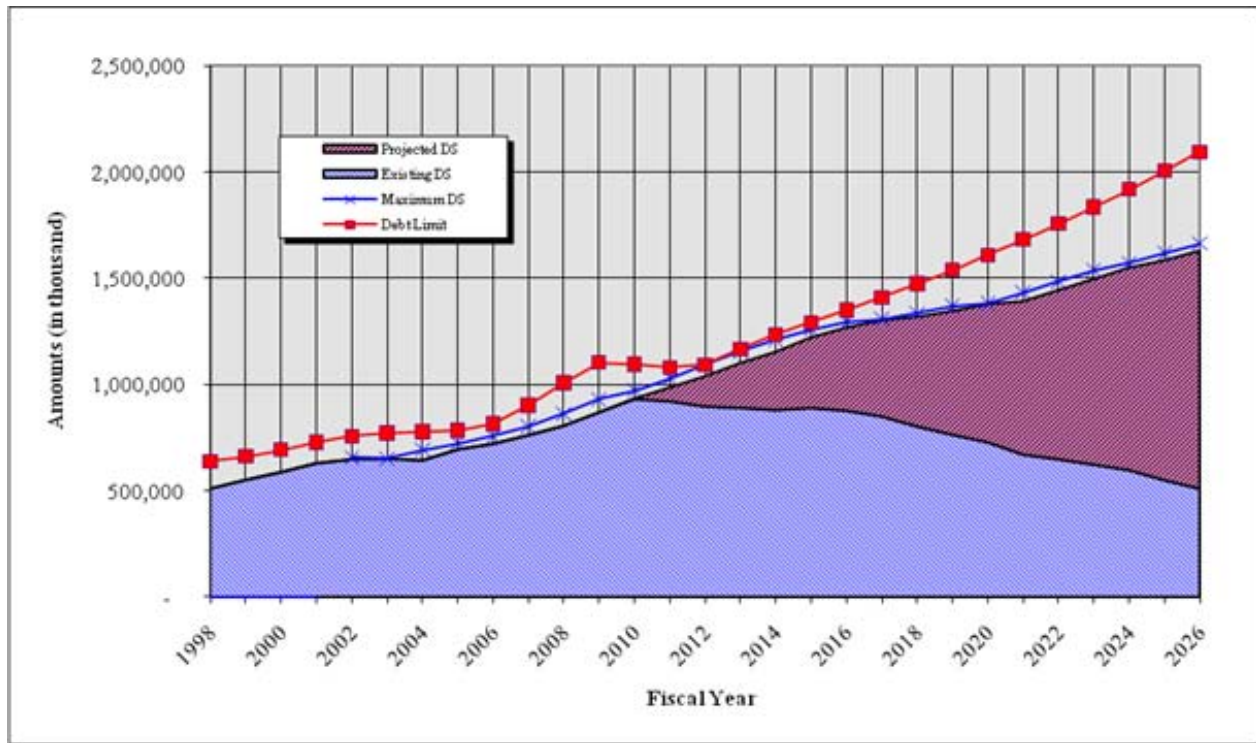
### 3.3.3.3 State Borrowing

The 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.

For example, assuming the state receives \$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 state is currently approaching the constitutional limits of its debt capacity. As part of its capital planning process, projects are identified and budgeted for in advance of needing the actual funds. The chart below shows the state's projected debt service as well as its constitutional limitation of 9 percent of state revenues calculated as described above.

Figure 3-2 Washington State Debt Capacity. Source: State of Washington Debt Model



The projected pinch point first occurs in 2013 where maximum annual debt service equals 9 percent of the state's calculated general fund revenue. This debt service projection actually contemplates future capital budgets that are well below what is included in the current biennial budget, so debt capacity is likely to be very limited for a number of years.

The state likely has the ability to issue revenue bonds backed by the tax that funds MTCA. However, revenue bonds come with covenants and limitations that may make this type of borrowing less appealing. These covenants would include debt service coverage, a debt service reserve fund, and perhaps a rate stabilization fund.

### **3.3.3.4 Local Government Borrowing**

Given that the state's budget is prepared on a biennial basis, the ability of the state to provide budgetary commitments is limited to the timing of the current budget. The state currently may not commit its funds beyond the current biennium — any commitment is subject to the budget/appropriation process). In order for locally issued bonds secured by a revenue stream from the state to be issued, investors need to have a reasonable certainty that the revenue stream will continue throughout the life of the bonds. Accordingly, a modification of state law would be required in order to permit local governments to pledge these revenues for the payment of short-term and long-term locally issued bonds. This would protect these revenues from appropriation risk.

There are several methodologies available to securitize the revenue stream:

- **Short-Term Borrowing**

The state could establish a program that would be modeled after the federal Garvee bond program. In this program, a particular project is approved by the federal government in order to receive payments for eligible debt-related costs. Once a project is selected for bond financing, the project is submitted to the responsible officer for approval as an advance construction project. The advance construction designation will ensure that the project follows established procedures and will preserve the eligibility to reimburse debt-related costs with future federal aid funds. Debt service schedules are established, submitted and approved at the federal level. By complying with these processes, a share of debt service is identified as the federal share and, subject to appropriation, will be paid and disbursed to the state during the life of the approved bond issue.

Another option is for the state to issue an investment letter (see Section 3.3.12). The terms of the investment letter provide a level of commitment of future funding by the state that is sufficient so that local banks are confident enough to provide interim financing for projects.

- **Long-Term Borrowing**

State statutes provide local governments the authority to borrow money based on anticipated grant revenues provided by the state. These bonds can be structured with LTGO or revenue pledges. The cost of borrowing will be directly related to the strength

of the assurance the state can provide that the grant revenues will be available to make timely payments on principal and interest on bonds.

- Pooled Borrowing

Similar to a Brownfield Development Authority, local governments have the ability to come together and pool their resources in order to support projects that will benefit multiple jurisdictions. Pooled borrowing can expand debt capacity by utilizing debt capacity of multiple jurisdictions. Pooled borrowing also can expand and strengthen the pledge of revenues by combining revenue commitments of multiple jurisdictions. Pooled borrowing uses tools available to local governments, including the Interlocal Cooperation Act (RCW 39.34) and public development corporations (RCW 35.21.730 et seq.)

### **3.3.3.5 Evaluation of Alternative**

If the state is the initiator of the securitization of MTCA revenues, a financing mechanism would be required that would not create a “debt” of the state within constitutional or statutory debt limits. This could be accomplished through financing contracts, a revenue obligation, or a third-party arrangement (e.g., an independently created authority).

If the initiator of the securitization of MTCA revenues is local, the issuer may be an individual governmental entity, a group of entities, or a public corporation. For local government issues, there are debt limit considerations.

#### **PROS:**

1. Generates immediate capital to commit to existing projects. Accumulating a project’s total cost at one time facilitates the use of trusts and prefunded insurance products that are discussed later in this report.
2. Accelerates the pace of cleanups, as more “shovel-ready” projects can take place sooner.
3. Protects the integrity of MTCA funds, as debt service pledges commit the use of the funds up front.
4. Smooths out the capital curve for the fund through level debt payments that do not wildly fluctuate. This assumes that some Remedial Action Grant allocations would be available for “cash” grants and that the larger projects would be considered as part of cumulative need satisfied by receiving bond proceeds.

#### **CONS:**

1. Commits state resources otherwise available for other uses within and outside of the MTCA fund.
2. State issued bonds could reduce overall state bonding capacity

3. State issued bonds could reduce capacity to fund new projects not identified in the (SHB) 1761 Ten Year funding strategy.
4. Create transaction and interest cost that may be a poor value compared to cash reimbursement policy.
5. Volatility of revenue stream could put ongoing expenditures at risk and may increase interest rates on bonds.

### **3.3.4 Environmental Insurance**

Environmental insurance programs have gained use across the nation as cleanups have become more complex and as regulations have increased standards and driven some uncertainty into the assumptions of a cleanup project. The state legislature approved an amendment to the state's statutes that allows the use of MTCA funds for environmental insurance. To date, Ecology has not directly participated in an insurance solution. A limited number of grantees, including the Port of Bellingham and the Port of Anacortes, have purchased 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.

#### **3.3.4.1 Background**

Several types of environmental insurance products address pollution risks associated with specific sites and 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 environmental insurance market essentially got its start in the 1980s when General Liability insurers began applying absolute pollution exclusions, which created the need for new insurance tools to fill the gap created by these exclusions. For many years, only a small handful of insurers were in the market to provide environmental coverage. But within the last five years or so, more players have entered the environmental insurance market, putting the current number of insurers providing some level of environmental insurance at nearly 25 (as of October 2009).

The main insurance products are outlined in the following sections.

#### **3.3.4.2 Site-Specific Pollution Liability Insurance**

Site-Specific Pollution Liability insurance is known by many different proprietary names in the insurance market. A common generic name for the coverage is Environmental Impairment Liability (EIL), or Pollution Liability insurance. EIL 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. Policies can also be designed to cover operational pollution risks arising from unanticipated discharges, leakages or spillages, and historical risks for liabilities associated with preexisting contamination — including third-party liabilities and off-site cleanup of historical contamination.

It is possible to combine both ongoing operational and historical pollution coverage into a single policy. The policies can also be extended to cover off-site waste disposal locations, transportation exposures, natural resource damage claims, legal defense costs, or even contingent risks such as business interruption or economic loss associated with contamination.

A stand-alone EIL policy covering risks associated with preexisting conditions typically has a maximum policy period of ten years. Coverage for new conditions associated with ongoing operations is typically limited to maximum policy terms of five years. Longer policy terms could be obtained in the earlier years of the environmental insurance market, before losses developed on long-term policies. Currently, approximately 20 insurers in the market are capable of providing some form of EIL coverage. Not all of these insurers, however, can provide coverage for complex scenarios such as sediment contamination.

### **3.3.4.3 Cost Overrun Insurance**

Like EIL, cost overrun insurance is known by different names, depending on which insurer is offering the coverage. Unlike EIL, the number of insurers who offer this coverage is much more limited.

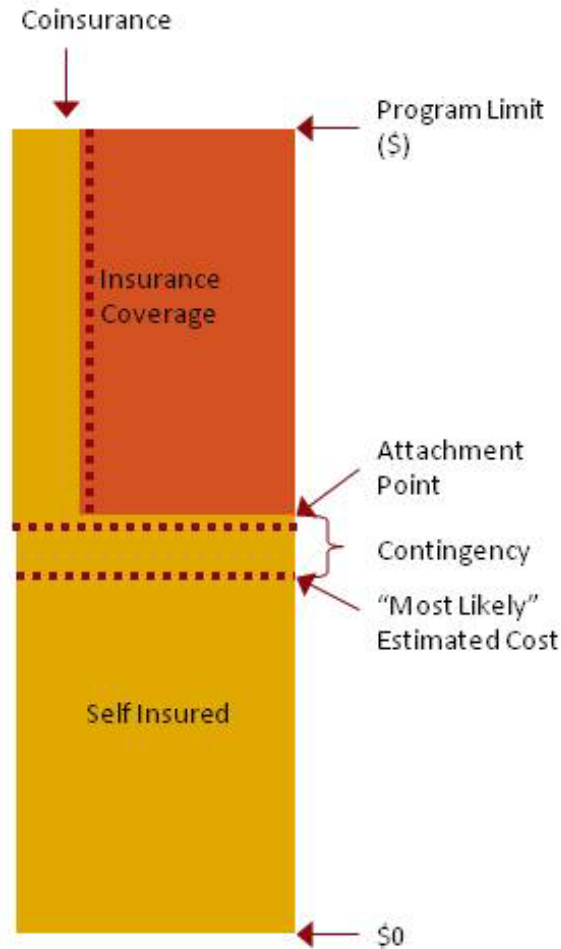
Cost overrun policies are designed to pay for unanticipated remediation project costs that exceed original project estimates. Cost overruns have many causes, including the discovery of additional contamination, unexpected site conditions, underestimation of base costs, changes in regulatory requirements, or failure of cleanup technologies.

The insurance attachment point above which the policy will pay out (subject to the policy limit and other policy terms and conditions) is the subject of a negotiated agreement with the insurer and is based on the insurer's (third party) estimate of the cost for completing a defined remedial action plan. So essentially, the attachment point is the contractor's expected cost estimate, plus a contingency developed by the insurer (see Figure 3-3).

The attachment point determines the insured's retained risk —the insured is responsible for all costs below the attachment point. Consequently, the setting of this attachment point is the most significant factor in the total program price. Not surprisingly, the engineering assessments and negotiations that support the setting of the attachment point are critical and it is very important to have sound site characterization data; high-quality cost estimates backed up by strong, defensible assumptions; and solid project risk controls.

All costs associated with the covered remediation project erode the self-insured retention, and all insurers now require that coinsurance provisions be included in the insurance coverage layer that is excess of the attachment point. This loss-sharing strategy is employed by the insurers to ensure an appropriate alignment of interests — so the insured experiences some loss if costs exceed the attachment point. Coinsurance percentages required by insurers typically start at 10 percent and can be as high as 15 to 20 percent.

Figure 3-3 Cost Overrun Insurance Diagram



Cost overrun insurance has been a challenging product line for insurers, and their historical loss ratios for this product line have been higher than expected. As a result, there are very limited insurer options in the market at this time — currently there are a total of four insurers willing to provide some form of this coverage. Insurers have been attempting to avoid losses similar to those experienced on early cost overrun policies. This has resulted in significant changes to underwriting process and program structures as insurers have taken steps to make their cost overrun insurance programs profitable and sustainable over the past few years, including:

- The engineering and underwriting process has become much more prescriptive, intensive and time consuming.



- Some insurers now require up-front commitment/engineering fees and have sizable minimum premium thresholds.
- Most insurers will insure only preapproved contractors.
- Maximum policy limits are now typically equal to only the “expected” costs, typically referred to as “1 X expected costs.”
- Policy term maximum is now down to ten years, but insurers are taking further steps to restrict terms downward even more and are moving toward covering only the actual cleanup and not covering extended monitoring periods under these policies.
- Premiums have increased significantly over the last few years.
- Maximum market capacity is around \$100 million per site (above self insured retention) — this maximum amount involves “stacking” the capacities of multiple insurers. This amount was previously available from certain insurers on a stand-alone basis.
- Some insurers have established limits as to maximum percentages of cost overrun business they are willing to write in any one year compared to total bookings.
- To focus on larger projects that tend to have more room for error and therefore less potential for claim frequency (i.e., a problem in one area can be offset by other aspects of the project coming in below estimates), most insurers have increased their minimum threshold for the size of projects they are willing to insure. There are a few who will still entertain projects in the \$2.5 million to \$3 million range, and one insurer has developed a limited scope program to provide coverage for projects under \$2 million. The cost to insure these smaller projects is incrementally much higher than the cost to insure larger projects.

In many instances, a cost overrun policy is written in conjunction with an EIL policy to provide the full range of protections afforded by both policies for the work, activities, and potential liabilities at a given remediation site. While they are usually two separate policies, they can be modified to work seamlessly together. Additionally, some insurers have the ability to provide both coverage parts in one combined policy form.

There are also a variety of funding options for the costs associated with the uninsured layer — below the attachment point. Options include self-funding, blended insurance programs and secure funding vehicles such as escrow accounts or trust funds or even structured annuity programs.

#### **3.3.4.4 Blended Insurance Programs**

It is possible to transfer both known cost items (identified remediation obligations) and the associated unknown risks (potential overruns), using a combination of prefunding and conventional cost overrun insurance. These blended insurance programs typically are combined with an EIL policy to cover third-party liability claims and reopener risks.

In essence, insurers charge one premium made up of two components: a premium to fund the predicted remediation expenditure and an additional premium to transfer the cost overrun risks (essentially a conventional cost overrun premium).

Since the “expected” costs are future costs, the estimated remediation costs are discounted to an appropriate net present value (NPV). The policy obligates the insurer to maintain a notional Commutation Account (CA), the balance of which equates to:

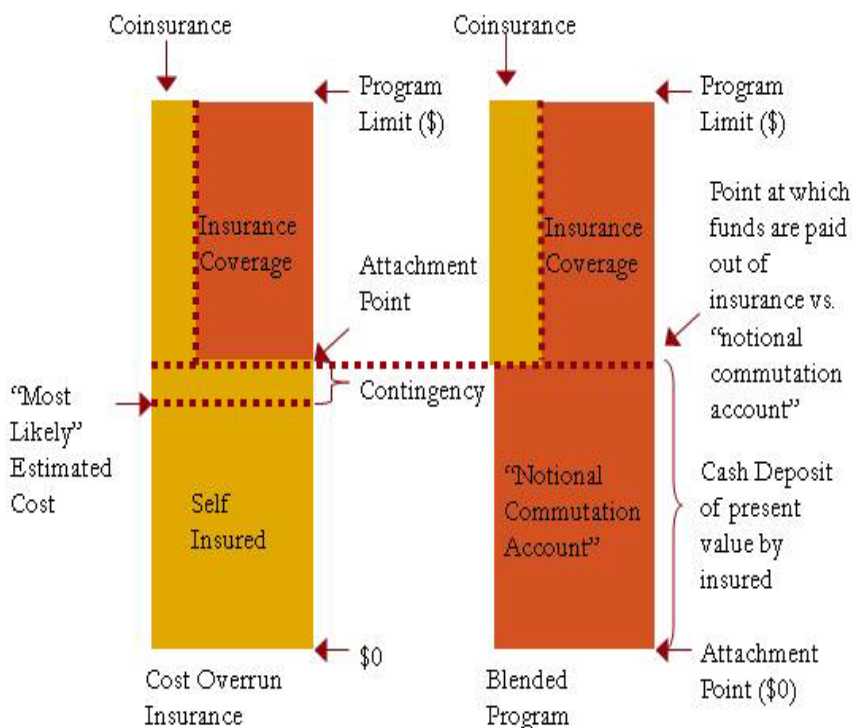
- The initial CA account deposit,
- Plus interest accrued (credited at a pre-agreed annual rate — typically linked to a one-year U.S. Treasury Bill rate),
- Less cleanup costs already paid out under the policy.

The policies contain provisions to allow cancellation and commutation — that is, return of unspent funds targeted at the “expected” costs. However, the insurer will release CA funds only if the notional account balance is positive, and then only in exchange for a full cancellation and release of liability from risks linked to the policy (thus loss of any risk transfer benefits).

Further, each individual policy has specific commutation provisions, which dictate the conditions of commutation and stipulate when policies are eligible to commute.

If through the execution of the project, the CA does not contain sufficient funds to cover reclamation expenses, the overrun is funded by the insurer via the cost overrun coverage up to the policy limit.

Figure 3-4 Blended Insurance Diagram



The primary difference between a blended insurance program and a stand-alone cost overrun insurance policy is that there is no self-insured retention (that is replaced by the prefunding) under the blended program structure.

These programs can also include an EIL policy component to provide the full range of protections afforded by both policies.

The market is very limited for blended programs. Essentially, two insurers are willing to entertain these structures and each one treats payments in and out of the program somewhat differently. Further, one of the insurers has considerable experience over many years and the other is only just beginning to explore utilizing this mechanism.

#### **3.3.4.5 A Hybrid Approach to Obtaining Insurance and Prefunding for Expected Costs**

An alternative approach to financing remediation costs is to combine conventional Cost Overrun/EIL insurance with other secure sources of prefunding such as escrow accounts, trust funds or structured annuity programs such as guaranteed investment contracts (GICs).

The relative merits of funding the expected remediation costs through a trust, escrow or GIC compared to the use of a prefunded or blended insurance program deserve further analysis. Each approach has its advantages and disadvantages. The main considerations are summarized below.

##### **Secure Funding with Cost Overrun/EIL**

- There is more flexibility to self-direct trust investment choices to potentially higher return investments. If the project is performed below current budget expectations, this could increase the amount of dollars to be distributed as profit at the end of the project.
- There is, however, no investment return guarantee with a trust structure, so there is a potential for funds shortfall. To mitigate this risk the investment strategy could target risk-free investments, which in turn dictate low investment returns. A GIC, on the other hand, can “guarantee” an investment return but is relatively inflexible in terms of payout scheduling and incorporating project changes.
- There is no protection against negative investment trends with either a trust or GIC structure. This could potentially lead to a funds shortfall. This “timing risk” will occur if the project costs increase sooner than expected and if anticipated investment returns have not yet been realized to meet the project’s expected cash requirements.
- The cost overrun policy will not extend (or “drop down”) to cover trust fund shortfall.
- Upon the completion of the remediation project there is easy access to any unspent funds held in the trust without having to deal with the insurer and cancel the policy.

##### **Blended Insurance Program — Incorporating Cost Overrun and EIL**

- The project costs will be paid, up to the limits of the policy, no matter what happens to investment returns or inflation rates.
- The “funded” element of the program is priced assuming an investment return of high-grade corporate bonds, which is higher than most guaranteed investment rates available to a trust fund or GIC. Therefore, less money needs to be set aside to cover anticipated project costs.
- This structure may conceivably provide access to longer insurance policy terms.

- Any remaining funds in the CA (the prefunded element) are returned to the insured at policy expiration. However, the amount of funds available at the end of the project is calculated based on an assumed low investment return rate based on one-year U.S. Treasury Bills.

### **3.3.4.6 Implementation Considerations**

Different types of environmental insurance products are available for different scales of projects. The following section describes how insurance could be applicable to these groups.

#### **Insurance Products for Cleanups under \$2 Million**

- Insurance companies can provide just Cost Overrun or just EIL or both without prefunding mechanisms to provide cost overrun protection and coverage for other associated pollution-related liabilities.
- The downside of this for Cost Overrun is that only one insurer is willing to provide coverage for this size of cleanup; coverage is limited; only certain contaminants and methods qualify; and incremental cost is much higher than on larger projects.
- Several markets exist for EIL on a stand-alone basis.

While always a challenging proposition, pooling/aggregation of smaller cleanups into a larger, more insurable cost overrun program is a possible solution that will more cost-effectively create some level of budget certainty for smaller related projects. Combining this method with Brownfield Development Authorities insurance, like debt pooling, is an attractive alternative for these smaller sites.

#### **Insurance Products for Cleanups between \$2 Million and \$10 Million**

Insurance companies can provide just cost overrun, just EIL or both without prefunding mechanisms to provide cost overrun protection and coverage for other associated pollution-related liabilities.

Insurers can use a hybrid approach with cost overrun and/or EIL standing alongside an alternative prefunding option, separate from the insurance program. The downside of this approach can include:

Alternative prefunding options that are outside the insurance program do not provide protection from timing, inflation, or overrun risks found in the Blended Insurance Program.

Trusts still have investment risk that can be offset by GIC.

It is possible to use a blended insurance program for this magnitude of cleanup, but the costs associated with structuring the program can sometimes make this approach disproportionately expensive.

## **Insurance Products for Cleanups over \$10 Million**

Stand alone cost overrun and/or EIL policies can be used for larger scale cleanups, but a blended insurance program is a very good fit for cleanups of this magnitude. In fact, the larger and longer-term the cleanup becomes, typically the more attractive the prefunding approach becomes because of the time value of the deposited funds. Benefits of this approach include:

- Long-term financial certainty as regulatory change, timing, inflation and investment risk is covered by the program.
- Funds are dedicated for future costs and overruns and other potential environmental liabilities are covered, thereby enticing potentially responsible parties (PRPs) to come to the table in negotiating settlement.

Different states have encouraged the successful use of environmental insurance in differing approaches. Washington could consider the following approaches. Following are some of the benefits and disadvantages of the various insurance solutions described above:

### **PROS:**

1. Having the protections of an insurance program in place can entice PRPs to participate.
2. Having EIL coverage on a site to be redeveloped after cleanup can create additional real estate value.
3. Cost cap policies eliminate cost creep and preserve funds.
4. Prefunding, whether inside a policy or in stand-alone instruments such as trusts, protects the integrity of LTCA funds and assures certainty of availability of funds over biennium gaps.
5. The risk of unknown and unanticipated liabilities is reduced or eliminated.
6. Cost estimates are independently verified.
7. The costs of premiums market test the risk and allow either the state or the grantee to make an informed decision as to the applicability of insurance in a specific circumstance.

### **CONS:**

1. Transactional costs may be disproportionate to the size of the project, although pooling of sites can reduce this objection.
2. Current insurance applications are written only after cleanup action plans are approved and typically do not cover assessments and investigative costs.
3. Insurance products traditionally cover the insured only for ten years.
4. There could be a public perception of profit taking by insurance companies.

## **Other Alternatives**

### **3.3.5 Tax Abatement and Credits**

The state currently provides a series of tax abatement or credit opportunities to incent policy goals such as job creation and general economic growth. Given the strong correlation between cleanup of sites and their subsequent redevelopment, the use of tax incentives offers real opportunities to encourage local government investment as well as the follow-up private development investment most likely to occur after cleanup.

If property is ultimately held in public ownership with a port, city or county, there is the attraction to private developers or tenants of being unencumbered by leasehold taxes. Leasehold taxes are the taxes in lieu of property taxes levied against a leasehold interest to replace lost taxes that would not otherwise be collected from tax exempt properties owned by local governments. This amounts to a 12.8 percent tax levy on the value of the lease. If property is sold, then the private interest would be equally attracted by relief from some of the tax burden. In either case, tax incentives could differentiate cleanup sites in a competitive market, increasing the confidence of a local government to take on the remediation and anticipated redevelopment.

While beyond the scope of this analysis, tax abatements or credits for private developers would create greater incentive for private-sector cleanups. This approach may also result in fewer abandoned sites and more cleanups in general; promote infill and reduce sprawl.

#### **3.3.5.1 Background**

Washington's major taxes are the Business and Occupation (B&O) tax, the sales/use tax, and the property tax. Most of the available tax incentives, such as exemptions, credits and deductions, focus on these types of taxes. (See the attached Appendix B for a list of Washington tax incentives.)

Local governmental entities are not exempt from sales and use tax but are usually exempt from B&O tax and property tax. In general, the tax burden associated with government projects is usually borne by the third-party vendors and contractors who sell products or render services to governmental entities. These vendors and contractors must pay B&O tax on their gross receipts and collect sales tax. Thus, local governments seeking to reduce their tax burden typically pursue tax incentives that benefit third-party vendors and contractors.

From 1998 to 2003, Washington State provided a sales and use tax exemption and a reduced B&O tax rate for environmental remedial actions. This exemption ended in 2003 based on a sunset provision in the legislation. Several key lessons were learned from these historic tax exemptions:

- The sales and use tax exemption stretched MTCA grant dollars by reducing the costs of cleanup. Ecology has estimated the exemptions resulted in \$2.7 million per year in LTCA grant funded cleanups.

- Ecology research shows that the tax abatements did not appear to increase the number or pace of cleanups. But they may have contributed to more thorough cleanup being conducted because of the effective reduction in costs.
- The B& O tax credit was primarily captured by consultants and contractors and was not fully passed on to local governments, property owners or PLPs .

The Department of Revenue estimated an annual loss of revenue to the state general fund of \$3.5 million for the sales and use tax exemption and \$0.3 million for the B&O tax reduction.

### **3.3.5.2 Legislative Process for Enacting Tax Incentives**

The Legislature has typically enacted tax incentives with the objectives of creating jobs, diversifying the state's economy, and raising living standards for working families. The Legislature's Joint Legislative Audit and Review Committee (Committee) is tasked with analyzing tax preferences or incentives. In its deliberation, it considers public policy objectives, beneficiaries, revenue and economic impact, and whether other states offer such incentives (RCW 43.136.055).

### **3.3.5.3 Public Policy Objectives**

The Committee considers whether the tax preference is justified by any public policy objectives. For the Committee's deliberation, the purpose or intent of a proposed tax incentive should be well documented. For example, differential B&O tax rates are often provided for equity purposes. Some industries have their prices set in national markets and are unable to adjust the price of their products to reflect the cost of a gross receipts tax. Preferential tax rates can provide a tax break to industries that have relatively low profit margins and that are unable to pass on to the consumer the cost of the gross receipts B&O tax. The Legislature has recognized several high-grossing, low-margin manufacturers that operate in competitive national and international markets.

The issue of fairness of gross receipt taxes, such as Washington's B&O tax, may also be considered. An evaluation of fairness may include the effect of the gross receipts tax regime on economic activity and whether the burden of the tax rests on the business that initially pays the tax or is shifted to households. Usually, whether or not the tax burden can be shifted depends on, among other things, the geographic territory of the tax, the geographic territory of the market, consumer reaction to price change, and market competition. It may also be worth noting that there have been numerous adjustments to the B&O tax's rate structure since it was first implemented. Many of these adjustments have been made to accommodate the circumstances of a specific industry (see the examples below).

Once such public policy objectives have been identified, the Committee will consider the extent to which the tax preference will contribute to the achievement of those objectives.

#### **3.3.5.3.1 Beneficiaries**

Entities benefiting from the tax preference should be identified. In addition, consideration should be given to whether there are any unintended benefits to other entities.

### **3.3.5.3.2 Revenue and Economic Impact**

The Committee considers the impact the tax preference has on future tax revenue. Generally, this type of analysis includes determining the general effect of the tax incentive on the state's overall economy and, in particular, the effects on consumption and expenditures of persons and businesses in Washington. In addition, thought should be given to any negative effects that would occur if the proposed tax incentive legislation was not enacted. For example, the Committee considers to what extent the resulting higher taxes affect employment and the economy.

### **3.3.5.3.3 Other States**

The Committee will consider whether other states have a similar tax incentive and whether there are any potential public policy benefits that might be gained by incorporating a corresponding provision in Washington.

### **3.3.5.4 Examples of Tax Incentives**

#### **Radioactive Waste Cleanup**

This past year, the Washington Legislature reduced the B&O tax rate for persons who perform radioactive waste cleanup services (RCW 82.04.263). Instead of paying 1.5 percent on their gross receipts, they pay 0.471 percent. The legislation was enacted to ensure that the lower B&O tax rate applies to all services contributing to the performance of a cleanup project at the Hanford site other than services that are routinely provided to any business, including businesses that are not engaged in cleanup activities. The legislation clarified that support services are those services that support the performance of cleanup and that (i) are within the scope of work under a cleanup contract with the U.S. Department of Energy or (ii) assist in the fulfillment of a requirement of a cleanup project undertaken by the U.S. Department of Energy under a subcontract entered into with the prime contractor or another subcontractor in furtherance of a cleanup contract between the U.S. Department of Energy and a prime contractor.

The legislation makes it clear that the lower B&O tax rate does not apply to general accounting services. But it does apply to performance audits conducted for persons cleaning up radioactive waste. In addition, the lower B&O tax rate does not apply to general legal services, but it does apply to legal services that assist in the fulfillment of a requirement of a cleanup project undertaken by the U.S. Department of Energy. Further, the lower B&O tax rate does not apply to general office janitorial services, but the specialized cleaning of equipment exposed to radioactive waste does qualify.

#### **Public Road Construction**

In general, prime contractors are subject to the retailing B&O tax classification and collect sales tax on the total contract price (which includes labor and materials). For contractors (both prime and subcontractors) who build, repair, or improve streets and sidewalks owned by a municipal corporation or political subdivision of the State of Washington or the federal government, the tax rules change. The contractors are subject to the "public road construction B&O tax" classification. Here, the public road contractors are treated as the consumer of the materials that



are incorporated into the road. Thus, they must pay retail sales or use tax on all materials they place in, or on, the road as well as on equipment and supply purchases. It is likely that the contractors will increase the total contract price in order to recover these costs. However, the local government entity benefits because no sales tax is imposed on the labor component of the contract, only on the materials.

### **Industry Incentives**

The Washington Legislature favors certain industries with tax incentives, most notably aerospace and high technology. The Legislature wants to preserve or create high-paying jobs in Washington.

### **High Technology**

Persons engaged in the following areas of high technology benefit from a B&O tax credit as well as a sales/use tax deferral or waiver:

- Advanced computing
- Advanced materials
- Biotechnology
- Electronic device technology
- Environmental technology

The B&O tax credit is available for certain expenditures related to research and development activities. The maximum credit is \$2 million annually. The sales/use tax deferral is available to those businesses that start new research and development or pilot-scale manufacturing operations, or diversify existing operations by expanding, renovating, or equipping an existing facility located in Washington. Provided that the operations continue for seven years, the deferred sales tax becomes permanently deferred or waived.

### **Electricity for Electrolyte Firms**

As previously mentioned, some tax incentives benefit a very small population. An example of this is the exemption from public utility tax for sales of electricity to chlor-alkali and sodium chlorate electrolytic processing businesses (RCW 82.16.0421). The Legislature stated two public policy objectives when it enacted this exemption:

To retain family wage jobs by enabling electrolytic processing businesses to maintain production at employment levels of at least 75 percent of industry jobs as of January 1, 2004; and

To sustain the Washington electrolytic processing industry so that it will be positioned to preserve and create new jobs when the anticipated reduction of energy costs occurs.

According to data published by the Department of Revenue, the two electrolytic processors in the state employed 95 workers in Washington as of 2008, exceeding the target level of 23 jobs. The industry is continuing production at higher levels than before passage of the legislation (58,000 tons of product in 2003 compared to 190,000 tons in 2008), despite continuing high energy costs.

The Department of Revenue also reports that there were two beneficiaries of this tax exemption as of 2008. EKA Chemicals, a subsidiary of a global company based in Europe, began operation in Moses Lake in 1990, and currently employs 33 workers. Equa-Chlor LLC, an Oregon-based company, began full production in 2007, and employs 62 workers at its facility in Longview. A third company in the chlor-alkali industry, Pioneer Americas at the Port of Tacoma, closed its operation before passage of the tax exemption, but testified in favor of the 2004 legislation in hopes of reopening.

### **3.3.5.5 Evaluation of Alternative**

This study focuses on Remedial Action Grants, which are limited to eligible public entities that are already exempt from many taxes. Tax incentives have a potentially important benefit to public agencies through leasehold excise taxes that are charged to private entities leasing facilities from ports and local governments. The leasehold excise tax is currently 12.8 percent. An abatement or credit against this tax could be a powerful incentive to attract private developers to publicly owned properties. The return on investment through leasing is an important factor in the financial feasibility of many cleanup and redevelopment projects.

Likewise, abatements for taxes for property sold after remediation provide powerful incentives that promote private investment in redevelopment. Perhaps more important, such tax abatements should increase the confidence of local governments to undertake cleanup projects. As discussed in Section 4 of this report, the projected tax revenue to the state from redevelopment of contaminated sites far outdistances the costs of the cleanups and would afford both the capacity and incentive to the state to adopt this strategy.

#### **PROS:**

1. Promotes cleanup and redevelopment without drawing down the LTCA as it provides an additional source of earned revenues to grantees from developments that pay local taxes or that increase the value of property if it is sold.
2. Encourage grantees to undertake cleanup projects more aggressively if their chances of development success are enhanced.

#### **CONS:**

1. Does not benefit all potential municipally lead cleanup projects, particularly those that do not have private development potential or any marginal increase in value to the asset created by the cleanup. If it provides only a neutral value, it is less attractive.
2. Decreases tax revenues to the state general fund potentially impacting other state priorities.

### **3.3.6 Tax Increment Financing (TIF)**

TIF is a widely used tool that encourages early investment of future value into 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 future. In a growing number of states, TIF is used to pay for cleanups, much like infrastructure improvements, relying on the future increased property value to pay back the cleanup 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, traditional TIF tools have been found unconstitutional. However, comparable programs are available in Washington. While less effective than traditional programs, they could provide good incentives to encourage cleanup.

#### **3.3.6.1 Background**

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.

"True" TIF has been found unconstitutional in Washington, 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.

##### **3.3.6.1.1 Local Infrastructure Financing Tool**

Local Infrastructure Financing Tool (LIFT) programs provide a form of TIF for public infrastructure projects in revenue development areas (RDAs) created by a local government (RCW 39.102). The LIFT statute authorizes certain "local governments," including cities, towns, counties, port districts and federally recognized Indian Tribes, to participate in an RDA for the purpose of financing local infrastructure projects. These projects are intended to encourage private development to generate increased tax revenues in the RDA; the increased state and local tax revenues are, in turn, necessary preconditions to receipt of the state sales and use tax credit. The statutes define "public improvements", and limit the definition to infrastructure, without including environmental remediation (RCW 39.102.020(20)(a)).

The key feature of the LIFT program is a state sales and use tax credit. These funding sources interact and are subject to complex limitations under the LIFT statute. The LIFT statute was amended this past legislative session, pursuant to Chapter 267, 2009 Laws, to make the mechanics of the state sales tax credit more workable.

##### **3.3.6.1.2 Local Revitalization Financing**

Local Revitalization Financing (LRF) permits formation of "revitalization areas" to finance certain public infrastructure projects (RCW 39.104). LRF has a similar purpose to the LIFT program. A distinction is that under the LRF program, a "public improvement" is defined to

include “environmental remediation” (RCW 39.104.020(16)(a)(vi)). Moreover, “public improvement” also includes expenditure for the purpose of providing environmental analysis (RCW 39.104.020(16)(b)(i)). Funding sources include a state contribution and a local contribution. The state sales tax credit may not exceed the amount awarded by the state either through statutory allocations to demonstration projects or through competitive allocations. Applications for competitive allocations were due September 1, 2009, and have been awarded by the state. The award is for an annual contribution, which may be collected for up to 25 years. The annual contribution must be matched on an annual basis with local contributions to the project in the prior calendar year. The local contribution can include federal and private sources as well as the local tax increment. It is important to note that the Local Revitalization Statute permits excess local contributions to be carried forward to meet the local match requirement for the state contribution for future years. Revenues from the state sales tax credit must be used for debt service on general obligation bonds issued to pay project costs, and cannot be applied to pay project costs on a pay-as-you-go basis.

The local contribution includes 75 percent of increased property taxes in the revitalization area. The percent of increased local sales taxes in the revitalization area is determined by interlocal agreement. The local contribution also can include federal sources and private sources. The local contribution can be used to pay debt service on bonds issued to finance project costs or can be used to pay project costs on a pay-as-you-go basis.

### **3.3.6.1.3 Interlocal Agreement**

Cities, counties, and ports are authorized to use their taxing powers jointly in overlapping taxing districts under the Interlocal Cooperation Act (RCW 39.34.030). These municipalities could agree by contract to contribute property taxes generated by development to pay for infrastructure needed to attract the development. These municipalities are also authorized to issue non-voted bonds, which could be payable from all non-voted property taxes but sized to be paid on a cash-flow basis from the incremental tax revenues. This approach avoids the statutory constraints of Chapter 39.89 RCW, LIFT, and LRF, but foregoes the possibility of receiving state revenues.

### **3.3.6.2 Evaluation of Alternative**

PROS:

1. Like tax abatements, TIF tools incent grantees to pursue cleanups, but in a more direct way because they can actually capture the real marginal tax increase created by remediation and redevelopment of underutilized contaminated sites. Those funds can be invested in the cleanup or other site needs such as infrastructure.
2. TIF does not increase taxes on private development; it simply captures and focuses the increase to a specified use for a defined period and then the tax stream begins to flow again at higher levels.
3. Other taxing agencies that would forgo relatively shorter tax increase from the subject property recognize significant long-term tax benefits in the future as a compromised site is put back on the tax rolls and, in most cases, with a greatly enhanced value.

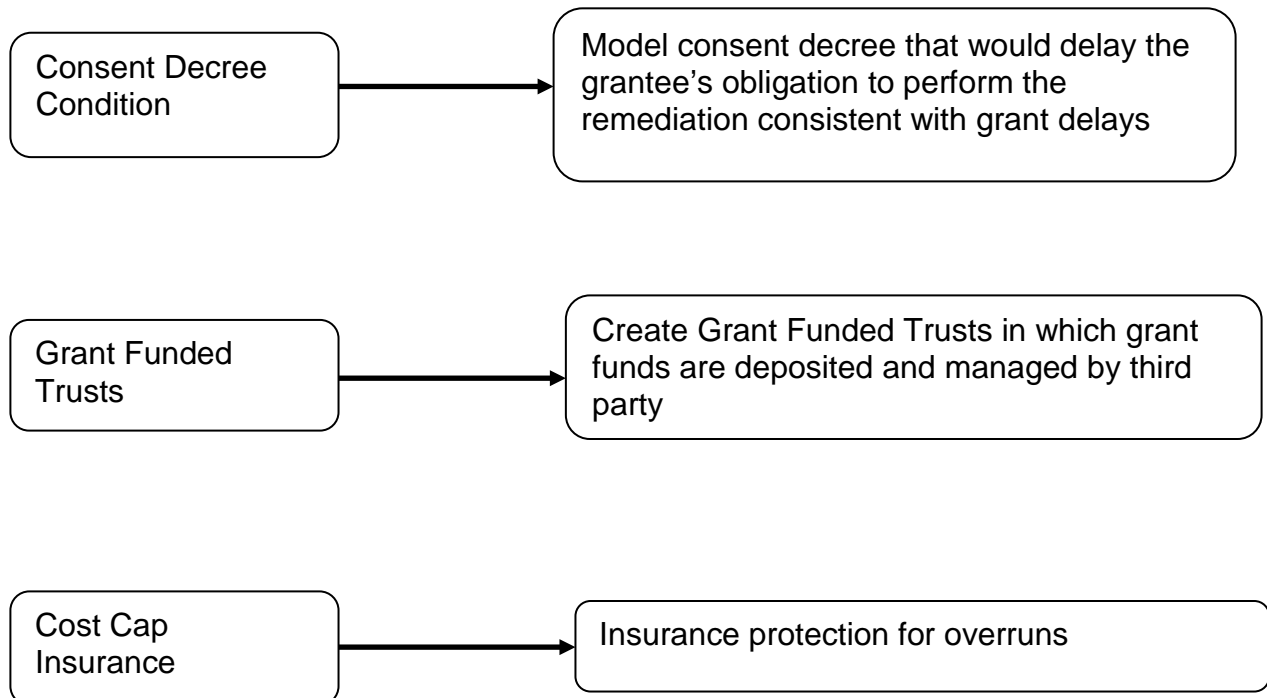
CONS:

1. The relatively short-term lack of growth in the tax revenues of some tax authorities would be more difficult to manage.
2. There is a small but mentionable risk that the economic development gains would not occur, and the sponsoring agencies as well as the agencies forgoing short-term tax increments would not reap long-term increased value.

**3.3.7 Goal 2: Reducing Uncertainty**

Reducing uncertainty has two main objectives. The first is to place awarded Remedial Action Grant funds in a secure instrument that is not subject to annual appropriation and thereby give the grantees enough confidence to move forward with the project. The second is to have access to protection from unknown conditions, poor up-front cost estimating, unanticipated changes in regulatory requirements, and/or unexpected claims by third parties for damages, all occurrences that drive up costs. Several alternatives have been identified that address this goal (see Figure 3-5).

Figure 3-5 Alternatives that Best Address Goal of Reducing Uncertainty



### **3.3.8 Grant Funded Trusts (GFT)**

A common approach in the private sector to address the transactional issues relating to predictability and certainty is to establish a transaction-specific trust. That concept could be applied to publicly funded cleanups with the creation of “Grant Funded Trusts” (GFTs). A GFT could be established by Ecology for projects to hold and receive grant funds. Since trust documents are extremely flexible, Ecology could (subject to appropriation by the Legislature) establish a GFT that holds the total funds necessary for a project.

Ecology or a third party designated by Ecology could act as the trustee. The funds would be dispersed to the local government under rules similar to grant disbursement rules except that the funds are obligated in the trust and cannot be used for other purposes without violating the terms of the GFT. 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 GFT that would ensure that the funds would be available to undertake all projects. As with the Brownfield Development Authorities discussed below, local governments could cost-effectively hire employees and assemble a consultant and legal team to deal with all sites.

The third-party entity could be a nonprofit trustee formed under the provisions of the Interlocal Cooperation Act (RCW 39.34) to oversee disbursement of the funds. The GFT would need to be allowed by a legislative change to either RCW 39.34.030 and/or a change to RCW 70.105D. The creation of a trust keeps the grant funds under the control of Ecology through the designated trustee. It would provide a greater level of certainty than existing grants or insurance and, if properly drafted, satisfy the requirements of GASB 49. In all cases, the environmental liabilities for local governments would not be altered by the GFT.

#### **3.3.8.1 Evaluation of Alternative**

Trusts are used in a number of situations to protect funds and assure their availability when needed. The conditions and the nature of the trusts can be constructed to the particulars of the holding period. Environmental trusts are used extensively for federal cleanup projects and provide a dependable mechanism to secure funds until needed. Investment policies vary in trusts but can be managed to minimize risk to the ultimate benefactor — the remediation project. These trusts can be used inside a prefunded insurance product or as a stand-alone trust when an insurance policy is not used.

#### **PROS:**

1. Protect funds in an independent trust that cannot be re-appropriated for other uses, providing certainty to grantees.
2. Allow investment interest to accumulate to the project’s benefit.

3. Provide a secure location to deposit prefunded insurance proceeds outside a policy product.
4. Prefunded trusts reduce and likely eliminate any GASB concerns on how a liability is booked.

**CONS:**

There is a certain level of risk associated with the viability and safety of a trust's investments; however this can be managed with GICs or conservative investment policies.

### **3.3.8.2 Consent Decree Provision**

The consent decree is the court-approved and enforceable commitment to conduct a specified cleanup. Consent decrees contain a timeline for completion of the specified cleanup. Local governments agree to the terms of these consent decrees with the promise of grant funding to help offset part of the cost. Historically, Ecology and the Office of the Attorney General have been unwilling to agree to provisions in consent decrees that automatically allow for an extension of the schedule for cleanup action if grant funding is not made available as promised. However, the two agencies have approved such extensions on a case-by-case basis.

This policy position is based on Ecology's concern that such provisions will lead PLPs that are not eligible for grant funding to demand same or similar extension provisions related to private financing.

While consent decrees address the cleanup phase (after a cleanup action plan or record of decision) agreed orders with a similar condition could be used for the assessment phase.

### **3.3.8.3 Evaluation of Alternative**

Ecology could create a special form of consent decree for use with grants that links the schedule for performing the cleanup action to the receipt of grant funding. With this approach, local government grantees would have greater assurance that the state will share the financial burden for site cleanup. In light of the recent financial crisis at all levels of government this assurance, is especially critical. If correctly drafted, such a consent decree would also allow for a GASB 49 reporting that reflected the actual agreement between the local government and Ecology.

**PROS:**

Protects and encourages grantees to enter into cleanup commitments.

**CONS:**

1. May delay project implementation if grants are not forthcoming and the project is delayed.
2. Increased transactional costs if projects are delayed.

3. Creates equity issues since this option is not available for non-grant eligible entities who enter into consent decrees with Ecology and the Office of the Attorney General.
4. Declining availability of grant funds may postpone municipal participation until grant funding improves.
5. Inflationary pressures would increase project costs and state costs during any delay.

### 3.3.8.4 Cost Overrun Insurance

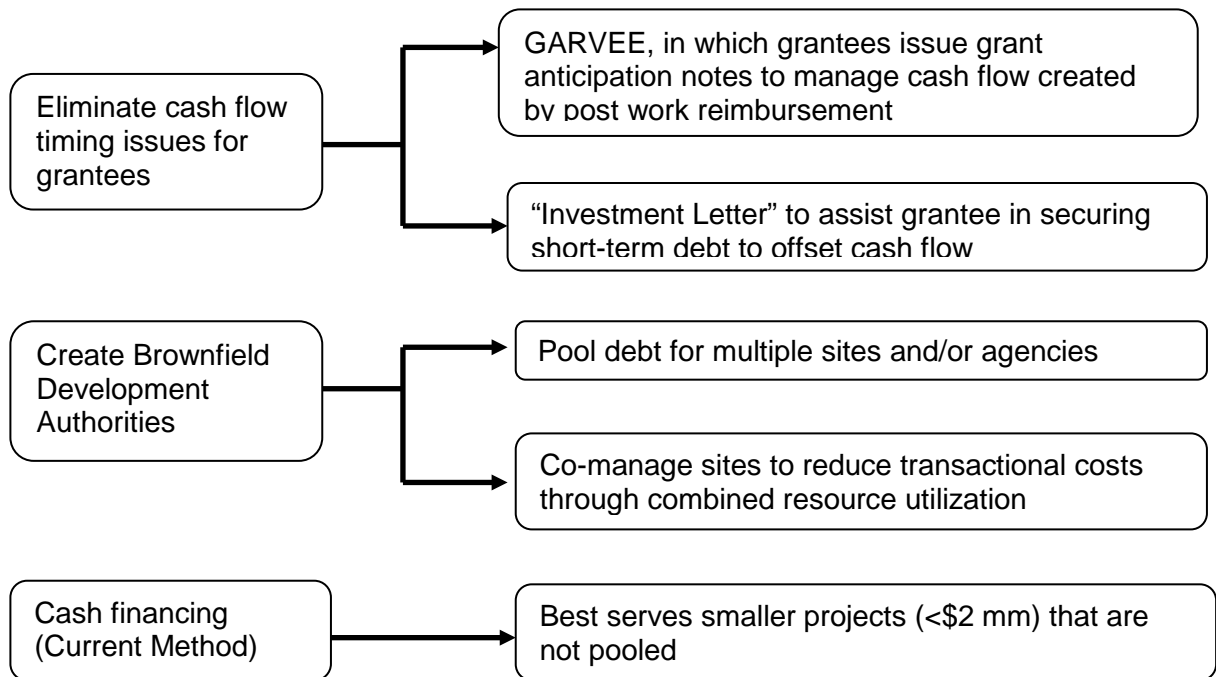
This insurance product aligns with both Goals 1 and 2 by leveraging the Remedial Action Grants and providing greater certainty for grantees by providing protection against unknown cost increase. This alternative is discussed in Section 3.3.4.

### 3.3.9 Goal 3: Ensure Flexibility and Promote Equity

Flexibility in the administration of the Remedial Action Grant program is critical so that economic biases are not built into the details of the program and result in inequity of access to the program. That inequity could result if projects are not as compatible with the program's offerings because of project size and complexity or financial strength of the grantee agency.

The alternatives that provide a means to address these concerns include methods to assist grantees in resolving cash flow challenges; pooling smaller projects for purposes of efficiency and cost and/or qualifying them for insurance protection; and using the traditional cash grant program where it is more practical (see Figure 3-6).

Figure 3-6 Alternatives that Best Address Goal of Flexibility and Equity





### **3.3.10 Cash Grants**

The Remedial Action Grant program currently is operated and managed on a cash basis. This has worked reasonably well over the last two decades, but this analysis has illustrated the constraints associated with this limited approach (see Section 1.2). Cash-funded cleanups are entirely appropriate in certain circumstances, particularly for projects that can occur within a single biennium. This concept refers to the practice of funding cleanups with appropriate funds within a biennium without the benefit of any other instrument to reduce the associated risk.

#### **PROS:**

1. Provides flexibility to changing conditions, especially for smaller projects.
2. Requires no administrative or governance changes (represents current approach).
3. Provides flexibility to the state in managing limited resources.

#### **CONS:**

Maintains current uncertainty for grantees and the state if it is the only available option and discourages participation of grantees.

Limits the number of cleanups to be undertaken in a given period of time when LTCA appropriations are high.

Does not offer any financial management strategies to offset inflation and recognize economies of scale in undertaking larger projects.

Encourages project proponents to overstate project costs through excessive contingency calculations.

### **3.3.11 Cash-Flow Timing**

The receipt of Remedial Action Grants through reimbursements creates a cash-flow challenge for the grantees. Project costs are significant and, despite Ecology's efforts to reimburse promptly, interim funding is still needed.

Also, since the grants are often limited to 50 percent of the total cost of the project, public entities may wish to secure interim financing for the entire cost of a project, pending reimbursement from Remedial Action Grant funds. A number of public entities have found it difficult to obtain interim financing from lending institutions for these projects. The typical rationale for declining the financing request is that there appears to be no assurance that Ecology will provide the Remedial Action Grant funds.

A potential mechanism to address this concern is through the issuance of investment letters, such as those provided by the U.S. Department of Agriculture (USDA).

The USDA operates a number of programs, one of which is the provision of long-term loans and grants to local communities for water and sewer purposes. USDA regulations require (except in special circumstances) that the local community obtain interim financing for the construction of the project, and the USDA funds are used for take out (long-term funding) after construction is completed. In order to assist local communities in obtaining construction loans from local banks, USDA has developed a form of “investment letter.” The terms of the investment letter are sufficient so that local banks are confident enough in the long-term take out by USDA that they will provide interim financing for improvement projects. Since USDA also monitors projects, banks will often require an additional sign-off for disbursing progress payments on line of credit financing. (Appendix C includes an example format for the USDA “investment letter.”)

Another approach that would resolve the shorter need for gap funding would be a program established by the state that would be modeled after the federal Garvee bond program (described in Section 3.3.1.4.2). A particular project would be approved by the state in order to receive payments for eligible debt-related costs. Once a project was selected for bond financing, the project would be submitted to the responsible officer for approval as an advance construction project. This would make it easier for grantees to secure gap funding.

### **3.3.11.1 Evaluation of Alternative**

#### **PROS:**

Provides bankable assurances to grantees to borrow funds in anticipation of grant payments and encourages their participation.

#### **CONS:**

None apparent.

### **3.3.12 Brownfield Development Authorities**

The concept of a Brownfield Development Authority is similar to the traditional public development authorities that can be established by local governments. A Brownfield Development Authority could be established to oversee cleanup of multiple contaminated sites in an area (similar to the Thea Foss Waterway Development Authority in Tacoma). Using this tool, local governments could pool multiple sites to provide the opportunity to minimize transaction costs while leveraging redevelopment funding to cleanup funding. Cost would be minimized by:

- Jointly developing the environmental, finance, and insurance expertise to address all the sites. Transaction costs would be minimized for each site.
- Although a regulatory concern, managing the sites as a “single site,” thereby allowing for staging, treatment, or isolation of polluted soils at a single site with one set of institutional controls.
- Purchasing insurance and obtaining umbrella grants that cover the liabilities at all the sites.

- Develop cleanup strategies in the context of area-wide economic development and comprehensive plans.

### **3.3.12.1 Evaluation of Alternative**

Brownfield Development Authorities would accomplish a number of goals in addressing the challenges of remediation efforts. They would facilitate the pooling of several sites for management and financing efficiencies where no logical area-wide government exists. Pooling of sites could consider regulatory approaches that offer improved environmental protection and reduced costs if sites were taken as a system.

#### **PROS:**

1. Pooled sites would increase the financial strength of the single sites to secure grantee funding for the local grant match as well as for securing interim funding for cash-flow purposes.
2. Managing sites under a single governance structure reduces the transactional and overhead costs to all sites.
3. Purchasing insurance products jointly will make smaller sites more eligible and overall cost will be reduced.
4. Address systematic problem with a more comprehensive solution.
5. It is consistent with the likelihood that Ecology will be conducting many cleanup projects under a multi-site/area-wide model in the future.

#### **CONS:**

May create more challenging regulatory pathways to pursue enforcement activities.

## **3.4 Evaluation of Alternative Mechanisms**

The alternatives presented above were assessed against the goals and the criteria described in Section 3.1 of this report (see Table 3-3). This assessment represents the subjective judgment of the report's authors and is intended to be a guide to determining the relative value and significance of the alternatives as implementation is contemplated.

Table 3-3 Alternatives Against Evaluation Criteria

Grouping by Alignment with Goals	Financial Alternative	Evaluation Criteria				
		Is this product readily available on the market?	Is it feasible?	Are there any extraordinary implementation costs?	What is the relationship between financial risk and benefit?	Are the administrative impacts to Ecology significant?
Goal 1: Leverage MTCA Funds						
	State issues Debt to Increase Fund Availability	Yes; however, revenue bonds will require more stringent conditions and GO Bonds will require debt capacity under the constitutional ceiling	Yes with marketplace acceptability and perhaps revenue stability analysis	Yes, costs of issuance and fund management	Great benefit in accelerating clean up; financial risk is related to stability of revenue stream and bond market conditions	Yes, fund management and working with the Office of the State Treasurer to prepare documents
	Grantee or another locally established entity issues long term debt secured by MTCA funds.	Yes, with assurances from the State related to availability of future grant revenue	Yes, with statutory amendments to pledge MTCA funds	Yes, costs of issuance and fund management to grantee	Great benefits to grantees, particularly in projects that have projects out of balance with grantee's resources	No
	Tax Abatement	N/A	Yes, with legislative authority after review by Joint Legislative Audit and Review Committee	Yes, but reasonable, currently done in other programs	Good benefits, no long term risk	No

Grouping by Alignment with Goals	Financial Alternative	Evaluation Criteria				
		Is this product readily available on the market?	Is it feasible?	Are there any extraordinary implementation costs?	What is the relationship between financial risk and benefit?	Are the administrative impacts to Ecology significant?
	Tax Increment Financing Expansion within existing programs of LIFT and LRF	N/A	Yes requires legislative action to continue programs and amend LIFT to make cleanup costs eligible..	Yes, but reasonable, currently done in other programs	Good benefits, no long term risk	No
	Purchase Environmental Insurance	Yes	Yes, currently allowed under existing statutes	Yes, a premium for risk transfer of cost exceedance; however this is offset by cost cap protection	Great benefit, reduces risk to State and grantees, acceptable and manageable risk with third party financial entity. Provides GASB 49 solution	Yes, will need to acquire in-house knowledge
Goal 2: Reduce Uncertainty						
	Grant Funded Trusts	N/A	Yes, with statutory amendments	Minimal transactional costs	Greater certainty for grantee which addresses GASB 49 problem. Reduces overall transactional cost to Ecology .Great benefit to grantee, little risk to Ecology	No

Grouping by Alignment with Goals	Financial Alternative	Evaluation Criteria				
		Is this product readily available on the market?	Is it feasible?	Are there any extraordinary implementation costs?	What is the relationship between financial risk and benefit?	Are the administrative impacts to Ecology significant?
	Conditioned Consent Decree linking timing of cleanups to grant funding (applicable for larger Agreed Orders as well)	N/A	Yes, administratively but could seek legislation limiting to grant eligible local governments	No	Great risk reducer to grantee, no change in risk to Ecology because grantees unlikely to proceed without grant funds. May resolve GASB 49 reporting issue.	No, except for initial rule making
Goal 3: Flexibility						
	Cash Grants	N/A	Yes, current process	Not more than current	Low benefit, high risk to grantee	Current process
	Cash Flow Timing (Garvee or Investment Letters)	N/A	Yes, requires legislation action to allow Ecology to pledge MTCA funds	No	Great benefit to Grantee, no risk to Ecology	Minimal, issuing the letter
	Create Brownfield Development Authority	N/A	Yes, with statutory amendments	For grantees, not State	Great benefit to grantee, no risk to Ecology	No

## 4 FINANCIAL IMPLICATIONS

Since its inception in 1988 as a voter initiative, the MTCA program has successfully completed over 6,000 site cleanup projects across Washington State. While these cleanups directly benefit human health and the environment, the MTCA program achieves multiple public policy objectives, such as economic development and community revitalization that are often overlooked and underestimated.

The benefits derived from this state program demonstrate a matured sustainability model that serves our state and local communities well. Environmental protection is the foundation of the program, in particular because most of the cleanup sites are adjacent to some of the state's most sensitive environmental assets, such as Puget Sound or inland river systems. Cleanups not only remove or immobilize hazardous materials and contaminants; they often produce other measurable and less tangible benefits.

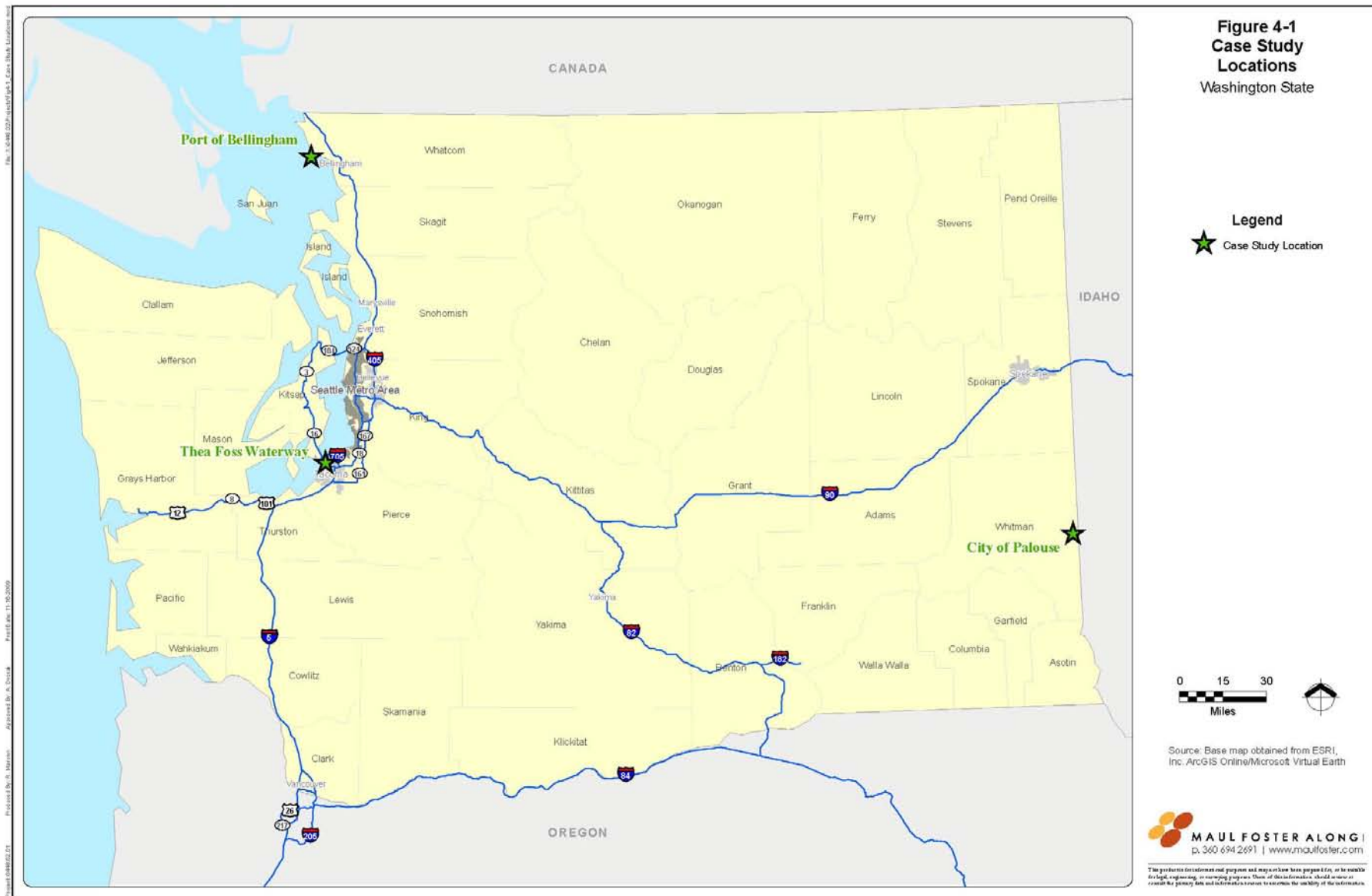


Community enhancements are recognized in a number of visible and more subtle ways. Contaminated sites are often blighted properties that detract from the quality of neighborhoods. Cleanup projects are central to revitalization of such neighborhoods. In addition, the redevelopment of these sites builds a community's sense of identity and can even help brand an area or entire town. Ecology's efforts in cleanup often result in increased public recreation opportunities in the form of open space and access to marine and freshwater bodies. Redevelopment of publicly owned sites frequently includes investments that have a strong public purpose and interest, such as education facilities, interpretive centers, or community gathering facilities.

Economic vitality is not only a significant byproduct – it is often the driving force that prompts the cleanup. Economic improvement is captured in two ways:

- First is in the immediate and one-time capital expenditures for cleanup activities, habitat enhancement, infrastructure construction to serve the redeveloped site, and the vertical construction. While the Ecology grants fund a portion of the cleanup and habitat costs, public site owners (grantees) will invest matching funds from local sources or other grants. This public-sector investment often leverages private-sector investment in redevelopment following cleanup.
- Second is in the long-term economic lift a project brings in the form of increased tax revenues, higher property values and indirect spending stimulated by a revitalized property. That economic lift is further sustained by job creation from the site that often surpasses previous employment levels on these “blighted” properties.

Figure 4-1 Case Study Locations





This section examines these broader benefits of cleanup and redevelopment of environmentally impaired properties in four case studies (see Figure 4-1). The Pacific Wood Treating (PWT) site in Ridgefield is described from a qualitative perspective. Economic models are used to quantitatively assess three other case studies: the Thea Foss Waterway in Tacoma, the Waterfront District in Bellingham and the Palouse Producers property in Palouse.

## **4.1 Qualitative Case Study**

The Port of Ridgefield (Port) is a special purpose district serving northern Clark County in southwestern Washington. Like the state's other 75 port districts, the Port's historic responsibility has been to actively pursue economic development opportunities and related initiatives to improve the quality of life of the residents in the greater Ridgefield area. That role was nearly derailed in 1993 when its major industrial tenant, Pacific Wood Treating (PWT), went bankrupt and left the Port with over \$50 million in cleanup liability at the Port's Lake River Industrial site (LRIS).

The Port recognized the huge economic potential in developable land in north Clark County. But the threat of the site being placed on the federal National Priorities List (NPL) and the strict joint and several liability provisions of the federal Superfund approach would likely have bankrupted the Port.

Ecology and the Port created an innovative funding package and strategy to complete the massive cleanup project. This strategy has allowed the Port to undertake the massive cleanup and once again focus on job creation and economic development, looking toward the future of the greater Ridgefield community.

The LRIS includes approximately 40 acres located in the city limits of Ridgefield on the banks of Lake River, a tributary of the Columbia River, and Carty Lake that is in the Ridgefield National Wildlife Refuge (Refuge).

### **4.1.1 History of Remediation**

PWT abandoned hazardous waste and wood-treating chemicals on the property at the time of its bankruptcy. Soil and groundwater were heavily contaminated with wood-treating chemicals including chlorophenolic compounds (e.g., pentachlorophenol [PCP]), polyaromatic hydrocarbons (PAHs), dioxins, volatile organic compounds, and copper, chromium, and arsenic. As a result of PWT's former operations, an approximately 4-acre plume of free product was migrating toward Carty Lake on the Refuge. Surface water runoff from former treated wood storage areas was contaminating storm water and sediments on the Refuge and in Lake River.

Since Ecology began working with the Port, the Port has removed contaminated structures, over 100 tons and 4,500 gallons of hazardous waste, and over 158,000 gallons of abandoned toxic wood-treating chemicals. The Port has completed interim actions to eliminate stormwater runoff onto the Refuge and to remove sources of stormwater contamination. As a result of these interim actions, stormwater quality meets state discharge requirements. The Port completed an emergency action to protect the Refuge, which is described in the following section.

#### **4.1.2 Threat to Refuge and Lake River**

The Refuge provides important habitat for waterfowl, shorebirds, wading birds, passerines, numerous amphibian species, and threatened and endangered species. It is a primary roosting area for tundra swans and lesser sandhill cranes. The Refuge has national significance as part of the regional refuge system in southwestern Washington State and is a destination for eco-tourism, nature conservancy, research, hunting, fishing and archeological investigations of tribal settlements and Lewis & Clark encampments.

Contaminants originating from the former PWT facility had migrated off-site and into Ridgefield National Wildlife Refuge lands. An emergency action was necessary to remove the existing contamination and prevent future contamination.



#### **4.1.3 An Innovative Technical Solution**

Ecology classifies the PWT site as one of its most challenging cleanup sites. The emergency action included the installation of a Steam Enhanced Remediation (SER) system for removal of contaminants from the area impacted by PWT's former wood-treating operation. The injection of steam heats groundwater to boiling temperatures and allows for the removal of free product from the groundwater. Using conventional pump and treat technology, at ambient temperatures, only a fraction of the free product could be removed, even if operated for 100 years. Using the innovative technology funded by Ecology, the Port has removed close to 25,000 gallons of free product, recovered 465 tons of sludge, and treated over 110 million gallons of contaminated groundwater since SER began in April 2004.

#### **4.1.4 Sustainable Redevelopment Approach**

The environmental protection benefits of this project are immeasurable given the national and regional value of the Refuge.

The anticipated redevelopment of the site will generate economic vitality to the local economy as it is redeveloped into mixed uses. Possible site uses include interpretive and research facilities connected with the Refuge and Lake River; commercial job creation and limited residential. Those uses will regenerate this blighted site and convert it into economic productivity that will likely exceed its former value, tax generation capacity and employment base as a wood treatment facility.

Development plans for the site include strong physical and visual connections to the "Main Street" commercial center so as to fuel interest in the overall community by outside investors. Keeping this development goal in mind will result in the project giving "lift" to the existing commercial area and not erode its economic value.

Inherent in this unique cleanup is the ability to transfer this proven technology to other sites with similar conditions throughout the State. A definitive technical knowledge base has been developed as a byproduct of the work and its economic value can be captured and deployed elsewhere.

The availability of the Ecology grant in this case made it possible for the Port to pursue other development efforts during this extended cleanup process. More than 75 acres of Port-owned land have been developed and occupied by new businesses that are now home to over 500 local jobs. Building on the success of Ridgefield's first industrial park, the Port recently purchased 45 acres adjacent to its existing 30-acre parcel at the Ridgefield I-5 junction, creating another contiguous 75-acre parcel of prime industrial and commercial property in the heart of the I-5 Discovery Corridor.



The Discovery Corridor is a roughly 5,000-acre strip of land along I-5 that stretches from the intersection of I-205 and I-5 to the northern boundary of Clark County. This Discovery Corridor is a prime location with three and soon to be four highway interchanges; access to four deep water ports within 25 miles; access to Portland International Airport within 20 miles; service by BNSF Rail; nearby Washington State University research and education facilities and with over 2 million people within an hour drive. Harnessing this economic potential has been greatly facilitated by the ability of the Port to dedicate its limited resources to economic development capitalizing on its partnership with Ecology in addressing a looming environmental liability.

The quality of life and character of a community is defined by its public spaces as well. The redevelopment of the site includes community enhancements that provide much desired and improved access to the River and the Refuge. In essence the site will allow the Ridgefield community to maximize the value of these great natural assets for recreation and its stunning visual presentation. Community enhancements planned for the site include "Main Street" overlooks, new moorage facilities on the river; open space parks and trails and a possible bridge connection to the Refuge.

## 4.2 Quantitative Case Studies

The Steering Committee chose three case studies for quantitative analysis of their economic impacts. These case studies represent a range of cleanup and redevelopment projects from large, complex sites to smaller, isolated parcels; population size from small to medium to large cities; and geographic breadth.

The economic impacts of these three projects were assessed using the Economic & Fiscal Impact Model for Brownfields Property Reuse prepared for Ecology by E. D. Hovee & Company, LLC. The planned development programs evaluated in the models are adapted from information provided by the Port of Bellingham and Tacoma Foss Development Authority, with the Palouse

development program as prepared by E. D. Hovee & Company, LLC in July 2009. Development costs are based on information as provided or, where not provided, by applying 2009 prevailing costs as derived from the international cost estimating firm Rider Levett Bucknall. Cost estimates as of 2009 are specific to the Pacific Northwest.

Where project-specific information is missing or incomplete, interpolations are made based on comparable project experience and brownfields impact modeling process. Impact estimates are from the nationally recognized IMPLAN input-output model. IMPLAN employment, wage, and output/revenue multipliers are multicounty, as developed for Ecology as of 2007 (the most recent year available).

Tax rates are specific to each jurisdiction and are compiled from current sources, including local county assessors' offices and the Washington Department of Revenue. Revenue estimates are not made for utility taxes or for development charges or impact fees, which are based on cost of service. All impact estimates are calculated in 2009 dollars, as of complete project build-out.

NPV calculations are estimated over 20 years, assuming an annual discount rate of 5.5 percent. All tax revenues are escalated at an average rate of 3 percent, except property taxes at 1 percent, based on state voter approved ballot measure. All development program cost and impact measures should be considered as order of magnitude estimates and are preliminary and subject to change.

To calculate one-time jobs created by infrastructure construction and vertical build-out, industry standard values were used. Cleanup costs were estimated on forecasted Ecology Remedial Action Grant needs for the Bellingham and Thea Foss projects. The one-time job creation and other economic benefits are understated, as they do not include historical costs or local grantee shares.

#### **4.2.1 Thea Foss Waterway**

More than 100 years ago, the Thea Foss Waterway in Tacoma was home to thriving industrial activities served by rail and marine transportation infrastructure. By 1981, changes in the region's economy had left the area blighted and littered with vacant buildings.

In 1996, community leaders, recognizing the great potential of a vibrant mixed-use waterfront, created the Foss Waterway Development Authority. This special-purpose authority, a creation of the City of Tacoma, took the lead on cleanup and redevelopment of the waterway and set about transforming the City's waterfront.

When full development is complete it will include parks, a residential community, offices, and retail businesses along 1.5 miles of waterway. A public esplanade will run the full length of the project. Currently, seven of the 15 development sites are being constructed or planned for redevelopment.



Today the area is home to unique uses, including the Museum of Glass; the Chihuly Bridge of Glass; Albers Mill, a restored 1904 mill converted to residential use; and Thea's Landing residential community and appurtenances, including small boat moorage and a developing Maritime Center.

To realize this bright future required a massive cleanup of the waterway as part of a U.S. Environmental Protection Agency (USEPA) Superfund cleanup of Commencement Bay. Identified in 1983 as a cleanup site, the area had accumulated over one million cubic yards of sediments contaminated with pesticides, metals, and manmade chemicals.

In 1994, in conjunction with several state and federal agencies as well as private parties, the City of Tacoma volunteered to lead the cleanup effort. From 2002 to 2006, contaminated sediments were dredged and placed behind a contamination berm. Four new habitat sites were developed along with the transformation of urban shorelines to softscapes that are fish-friendly.

#### **4.2.1.1 Economic Impact Assessment**

The Thea Foss site is estimated to generate an NPV in local and state taxes of \$133.7 million over a 20-year period, assuming a full build-out of the site (see Table 4-1 through Table 4-3). The Thea Foss Development Authority does not levy taxes; however, it is a creation of the City of Tacoma. The City tax estimate is \$27 million over the 20-year forecast period. This analysis does not take into account the Authority's earned revenue for leases and other property revenues.

It is estimated that the state will see \$67.3 million in tax revenues. With a MTCA investment of approximately \$30.4 million, this represents a ratio of 2:1 in tax revenues to MTCA funds over the period.

Table 4-1 Economic Impact Modeling—Washington Brownfields Reuse, Tacoma Thea Foss Waterway Projects, Tax Revenues by Type

STATE AND LOCAL TAX REVENUE ITEM	Rate Applied	Unit of Measure (U/M)	Calculated As	Annual Taxes @ Build-Out	Cumulative NPV - 20 Years	Comments
<b>One-Time Tax Revenues</b>						
Real Estate Excise Tax (REET)	1.78%	of transactions	\$251,015,625	-	\$4,235,150	Initial property purchase and condo sales
Sales Tax on Construction	8.4%	of construction	\$299,265,168	-	\$23,827,750	Estimated from construction budget
<i>Subtotal One-Time Taxes</i>				-	<b>\$28,062,900</b>	
<b>Ongoing Tax Revenues</b>						
Annual revenues estimated in 2009 \$\$						
Business and Occupation Tax	0.986%	of gross volume	\$50,120,700	\$494,270	\$7,064,080	State rate weighted by business type
Incremental Property Tax*	\$11.6206	per \$1,000 TAV	\$370,000,000	\$4,299,620	\$51,514,220	Calculated on property value @ buildout
Real Estate Excise Tax (REET)	1.78%	of transaction	\$48,744,400	\$867,650	\$12,400,350	From condo + commercial resales
Sales Tax w/On-Site Business	8.4%	of taxable sales	\$25,442,700	\$2,031,110	\$30,544,380	On retail and other taxable businesses
Other Taxes (if applicable)	4.0%	added w/lodging	\$5,304,000	\$212,160	\$2,728,950	Not applied with options considered
Marine State and Local Taxes		Pro rate estimate		\$99,330	\$1,378,260	Estimate from BST/Bellingham analysis
<i>Subtotal Annual Tax Revenues</i>				<b>\$8,004,140</b>	<b>\$105,630,240</b>	
<b>Net Present Value (NPV)</b>					<b>\$133,693,140</b>	One-time + ongoing over 20 years
Discount Rate Applied	5.5%	assumed cost of public borrowing / opportunity cost				
Inflation Rate	3.0%	assumed rate applied to market value and taxable retail sales				
Cap on Annual TAV Appreciation	1.0%	on property tax increases	Property, sales and B&O tax sources			
Residential Turnover Rate	15.0%	annual homeowner sales				
Commercial Turnover Rate	5.0%	annual sales of on-site commercial property				
* Note: Annual tax at build-out is based on full collections without property tax abatement.						

Table 4-2 Economic Impact Modeling—Washington Brownfields Reuse, Tacoma Thea Foss Waterway Projects, Tax Revenues by Jurisdiction

<b>TAX REVENUE ALLOCATIONS BY JURISDICTION</b>	<b>Annual Taxes @ Build-Out</b>	<b>Cumulative NPV - 20 Years</b>	<b>Comments</b>
<b>ESTIMATED ONE-TIME TAXES</b>			
State of Washington		\$21,483,630	Sales tax and REET
City		\$4,026,280	Sales tax and REET
County		\$567,340	Sales tax on construction
Transit		\$1,701,980	Sales tax on construction
Other		\$283,670	Pierce Zoo and Parks
<b>Total One-Time Taxes</b>		<b>\$28,062,900</b>	Sales tax on construction + REET
<b>ESTIMATED ANNUAL REVENUES</b>			
State of Washington	\$3,414,550	\$45,857,500	Property, sales and B&O tax sources
City	\$1,580,450	\$23,002,630	Property and sales tax
County	\$436,580	\$5,348,270	Property and dedicated sales tax
Port	\$67,660	\$810,640	Property tax
Schools	\$1,776,720	\$21,287,080	Property tax
Public Transit	\$152,660	\$2,181,790	
Regional Library	-	-	Property tax
Other Special Districts	\$476,190	\$5,764,070	Property tax—EMS
Marina State and Local Taxes	\$99,330	\$1,378,260	Based on BST analysis
<b>Total Ongoing Tax Revenues</b>	<b>\$8,004,140</b>	<b>\$105,630,240</b>	Property, sales and B&O tax sources
<b>TOTAL NET PRESENT VALUE (NPV)</b> (One-Time + Ongoing Revenues)		<b>\$133,693,140</b>	One-time + ongoing revenues

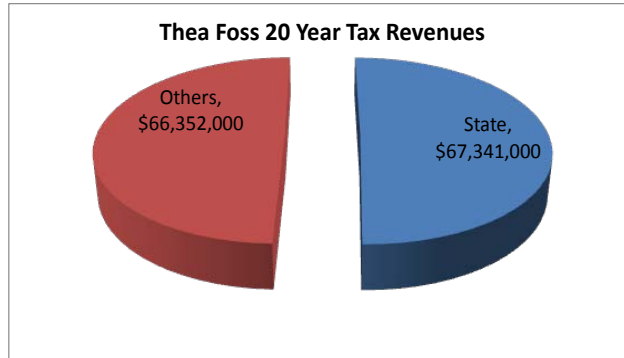
Notes: Annual taxes assuming no property tax abatement.

Table 4-3 Economic Impact Modeling—Washington Brownfields Reuse, Tacoma Thea Foss Waterway Projects, Economic Multiplier Benefits

ECONOMIC INDICATOR	Direct Impact	Economic Multiplier	Multiplier Impact*
<b>Construction Impacts</b>			
On-Site Employment	2,285	1.71	3,911
Total Payroll	\$135,076,933	1.60	\$216,142,800
Average Annual Wage	\$59,100	-	\$55,300
Business Revenue	\$391,765,200	1.55	\$607,236,100
<b>Ongoing Operations</b>			
On-Site Employment	1,036	1.47	1,524
Total Payroll	\$43,724,200	1.60	\$69,955,200
Average Annual Wage	\$42,200	-	\$45,900
Business Revenue	\$101,133,830	1.55	\$156,977,500
*Note: Calculated as sum of direct, indirect, and induced effects.			



Figure 4-2 Estimated tax revenues generated by redevelopment of Thea Foss Waterway



#### 4.2.2 Palouse Producers

The Palouse Producers site is located in the City of Palouse (population 1,100) in Whitman County, roughly two miles west of the Idaho border and within 16 miles of Pullman, home of Washington State University. This approximately 20,000-square-foot site has been the home of commercial activity since the late 1800s. Most recently, Palouse Producers used it as a bulk fuel storage site.

In 1985, Ecology cited Palouse Producers for allowing petroleum spills that threatened the adjacent Palouse River. Emergency action cleanup activities removed contaminated soils, but recent sampling conducted through an EPA Targeted Brownfields Assessment revealed that pockets of contaminants remained, including heavy metals and petroleum products.

Although the site is less than a half-acre in size, it represents a significant part of the City's small Main Street commercial district. Its current state detracts from the vitality of Main Street, but its redevelopment can create a significant boost to the local economy. Its location on the North Fork Palouse River also creates exciting opportunities to connect the City to its waterfront. In 2009, Ecology provided the City with an Integrated Planning Grant funded through LTCA funds to holistically plan for cleanup and redevelopment of the property. The grant is funding development of a community-based and market-driven vision for future use of the property.

Cleanup costs are forecasted at approximately \$343,000. Additional site testing and development analysis are under way to determine a more specific course of action. Ecology expects the City to attempt to acquire the site and seek a Remedial Action Grant to fund cleanup.

Potential future uses of the site, while not finalized, include mixed-use commercial, limited housing, and public access to the river. The development potential will capitalize on the unique nature of the community; its investment in infrastructure, including downtown streetscape; its

location in the heart of the state’s agricultural region; and its proximity to Washington State University.

#### 4.2.2.1 Economic Impact Assessment

The Palouse Producers site is estimated to generate an NPV in local and state taxes of \$1.9 million over a 20-year period, assuming a full build-out of the site (see Figure 4-3). The City itself is estimated to receive \$282,000 in tax generation (see Tables 4-4 through 4-6). The site cleanup is estimated to cost \$343,000, which illustrates that a community in this economic condition will require a Remedial Action Grant to address the financial impacts of assuming cleanup responsibility. This analysis, however, does not include any revenues associated with property leases to the City, nor does it include other City transactional or capital costs. It is only a tax comparison.

The state, on the other hand, theoretically could see over 4:1 tax revenues to MTCA funds over the period.

Figure 4-3 Estimated tax revenues generated by redevelopment of the Palouse Producers property

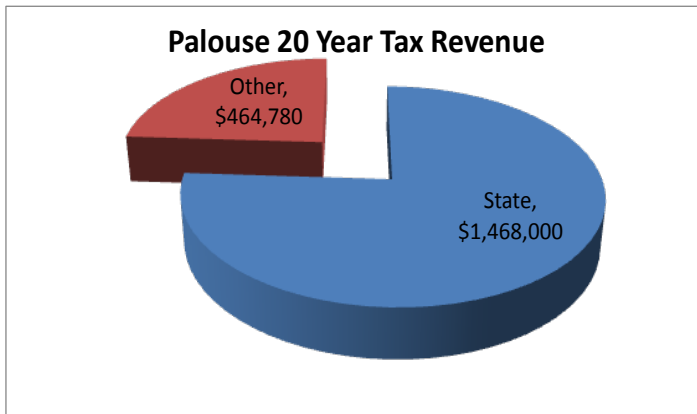


Table 4-4 Economic Impact Modeling—Washington Brownfields Reuse, Palouse Producers Site, Tax Revenues by Type

STATE AND LOCAL TAX REVENUE ITEM	Rate Applied	Unit of Measure (U/M)	Calculated As	Annual Taxes @ Build-out		Cumulative NPV - 20 Years	Comments
				100% Taxes	w/Abatement		
<b>One-Time Tax Revenues</b>							
Real Estate Excise Tax (REET)	1.53%	of transactions	\$1,217,500	-	-	\$17,700	Initial property purchase and condo sales
Sales Tax on Construction	7.8%	of construction	\$2,614,700	-	-	\$193,300	Estimated from construction budget
<i>Subtotal One-Time Taxes</i>				-	-	<b>\$211,000</b>	
<b>Ongoing Tax Revenues</b>							
Business and Occupation Tax	0.471%	of gross volume	\$1,350,000	\$6,360	\$6,360	\$90,900	Annual revenues estimated in 2009 \$\$ State rate weighted by business type
Incremental Property Tax*	\$14.0170	per \$1,000 TAV	\$2,208,700	\$30,960	\$9,100	\$234,000	Calculated on property value
Real Estate Excise Tax (REET)	1.53%	of transaction	\$272,100	\$4,160	\$4,160	\$59,500	From condo + commercial resales
Sales Tax w/On-Site Business	7.8%	of taxable sales	\$1,200,000	\$93,600	\$93,600	\$1,337,700	On retail and other taxable businesses
Other Taxes (if applicable)	2.0%	added w/lodging	-	-	-	-	Not applied with options considered
<i>Subtotal Annual Tax Revenues</i>				<b>\$135,080</b>	<b>\$113,220</b>	<b>\$1,722,100</b>	
<b>Net Present Value (NPV)</b>						<b>\$1,933,100</b>	One-time + ongoing over 20 years
Discount Rate Applied	5.5%	assumed cost of public borrowing / opportunity cost					
Inflation Rate	3.0%	assumed rate applied to market value and taxable retail sales					
Cap on Annual TAV Appreciation	1.0%	assumed rate applied to market value and taxable retail sales					
Residential Turnover Rate	15.0%	annual homeowner sales	Property, sales and B&O tax sources				
Commercial Turnover Rate	5.0%	annual sales of on-site commercial property					
* Note: Annual tax at build-out is based on full collections without property tax abatement. The net present value (NPV) calculation includes deduction for abatement in the first 8 years after project completion.							

Table 4-5 Economic Impact Modeling—Washington Brownfields Reuse, Palouse Producers Site, Tax Revenues by Jurisdiction

TAX REVENUE ALLOCATIONS BY JURISDICTION	Annual Taxes @ Build-out		Cumulative NPV - 20 Years	Comments
	100% Taxes	w/Abatement		
<b>ESTIMATED ONE-TIME TAXES</b>				
State of Washington			\$175,900	Sales tax and REET
City			\$27,680	Sales tax and REET
County			\$7,410	Admin share of City sales tax
Transit			-	
Other			-	
<b>Total One-Time Taxes</b>			<b>\$210,990</b>	Sales tax on construction + REET
<b>ESTIMATED ANNUAL REVENUES</b>				
State of Washington	\$92,590	\$89,240	\$1,292,410	Property, sales and B&O tax sources
City	\$22,080	\$15,440	\$254,430	Property and sales tax
County	\$7,130	\$4,640	\$78,940	Property and dedicated sales tax
Port	\$890	\$260	\$6,930	Property tax
Schools	\$10,410	\$3,060	\$81,060	Property tax
Public Transit	-	-	-	
Regional Library	\$1,070	\$310	\$8,330	Property tax
Other Special Districts	\$910	\$270	\$7,090	Property tax—EMS
<b>Total Ongoing Tax Revenues</b>	<b>\$135,080</b>	<b>\$113,220</b>	<b>\$1,722,100</b>	Property, sales and B&O tax sources
<b>TOTAL NET PRESENT VALUE (NPV)</b> (One-Time + Ongoing Revenues)			<b>\$1,933,090</b>	One-time + ongoing revenues
Notes: Annual taxes @ 100% equals revenues assuming no property tax abatement. NPV calculation deducts for abatement in the first 8 years after project completion.				

Table 4-6 Economic Impact Modeling—Washington Brownfields Reuse, Palouse Producers Site, Economic Multiplier Benefits

ECONOMIC INDICATOR	Direct Impact	Economic Multiplier	Multiplier Impact*
<b>Construction Impacts</b>			
On-Site Employment	20.2	1.88	38.0
Total Payroll	\$997,880	1.69	\$1,682,200
Average Annual Wage	\$49,400	-	\$44,300
Business Revenue	\$3,182,500	1.61	\$5,123,800
<b>Ongoing Operations</b>			
On-Site Employment	19.6	1.38	27.0
Total Payroll	\$505,240	1.65	\$832,900
Average Annual Wage	\$25,800	-	\$30,800
Business Revenue	\$1,566,800	1.62	\$2,540,800
*Note: Calculated as sum of direct, indirect, and induced effects.			

### 4.2.3 Bellingham Waterfront

The Bellingham Waterfront is a multiagency redevelopment effort in this city of 75,000 residents located in northwest Washington within 18 miles of British Columbia. Ecology originally selected this project as a demonstration pilot program to realize more integrated and comprehensive remediation of baywide cleanups. Since then, this remediation and reuse effort has become one of the state's largest undertakings



There are five independent cleanup sites in the planning area of 228 acres. Responsible parties include the Port of Bellingham, the City of Bellingham, Georgia Pacific Corporation, other private parties, and the State of Washington. The area-wide effort began in the mid-1990s, but coalesced in 2005 when the Port acquired 135 acres from Georgia Pacific in exchange for undertaking a prescribed cleanup remedy for the corporation's historical contamination of sediments in the Whatcom Waterway and upland sites.

Critical to the effort's financial feasibility was the receipt of a series of Remedial Action Grants from Ecology to augment local funds to complete the remediation. The estimated need for state participation is approximately \$45 million to \$55 million. The Port obtained cost cap insurance to protect the community from project cost creep, which required a prefunding of 50 percent of the calculated cost of remediation. Georgia Pacific bore the cost of the insurance risk premium, which protected both the Port and the corporation. While the Port assumed the cleanup responsibility, it did not indemnify Georgia Pacific from any environmental liability. The corporation will retain its share of liability if the costs exceed the insurance limits, which is not expected. As a component of the insurance product, an EIL policy is in place. This policy protects the insured against the discovery of any unknown contaminants, third-party claims and regulatory changes imposed on the cleanup.

The Port entered into interlocal agreements with the City of Bellingham to jointly plan the redevelopment of the site, including amendments to local land-use regulations and the installation of needed infrastructure by the City to accommodate new mixed-use investments from the historical industrial uses. Expected uses include mixed use, residential, and commercial build-out, accompanied by new marine facilities, open spaces, trails, and habitat development.

Two unique public interest outcomes are worthy of mention. One is the Port and Western Washington University's creation of a public development corporation to pursue the construction of new university facilities on the waterfront through joint ventures with private developers. The other is the creation of an Innovation Zone, and more specifically a technology center, to pursue research and education of "lab to market" opportunities focused on marine innovation. The center is a cooperative effort of the Port, Western Washington University and Bellingham Technology College funded with a \$1 million grant from the state.

Because of the significant investment in required infrastructure, the City of Bellingham was selected to be in the first pilot tax increment program of the state, LIFT. That financing program captures the marginal tax increase from the accelerated appraised value of property within the district and matches it with state funding. It is expected that new infrastructure attracts new private investment that otherwise would not materialize.

#### **4.2.3.1 Economic Impact Assessment**

The Bellingham site is estimated to generate an NPV in local and state taxes of \$477.3 million over a 20-year period, assuming a full build-out of the site (see Figure 4-4 above). It is estimated that the Port and City, the principal local investors, will receive \$4.6 million and \$73.1 million, respectively, in tax generation (see Tables 4-7 through 4-9). This analysis does not take into account the City's participation in the pilot LIFT program with the state, nor does the analysis estimate the Port and/or City's revenues for property leases (as property owners).

Table 4-7 Economic Impact Modeling—Washington Brownfields Reuse, Port of Bellingham, Tax Revenues by Type

STATE AND LOCAL TAX REVENUE ITEM	Rate Applied	Unit of Measure (U/M)	Calculated As	Annual Taxes @ 100% Taxes	Cumulative NPV - 20 Years	Comments
<b>One-Time Tax Revenues</b>						
Real Estate Excise Tax (REET)	1.78%	of transactions	\$434,137,500	-	\$7,324,800	Initial property purchase and condo sales
Sales Tax on Construction	8.5%	of construction	\$1,002,472,700	-	\$80,767,900	Estimated from construction budget
<i>Subtotal One-Time Taxes</i>				-	<b>\$88,092,700</b>	
<b>Ongoing Tax Revenues</b>						
Business and Occupation Tax	0.870%	of gross volume	\$512,586,300	\$4,460,940	\$63,755,200	Annual revenues estimated in 2009 \$\$ State rate weighted by business type
Incremental Property Tax*	\$9.0151	per \$1,000 TAV	\$1,262,590,900	\$11,382,350	\$136,373,500	Calculated on property value
Real Estate Excise Tax (REET)	1.78%	of transaction	\$119,723,000	\$2,131,070	\$30,457,000	From condo + commercial resales
Sales Tax w/On-Site Business	8.5%	of taxable sales	\$128,866,300	\$10,953,640	\$156,547,800	On retail and other taxable businesses
Other Taxes (if applicable)	4.0%	added w/lodging	-	-	-	Not applicable for this project
Marine State and Local Taxes		Pro rate estimate		\$154,000	\$2,136,800	Estimate from BST
<i>Subtotal Annual Tax Revenues</i>				<b>\$29,082,000</b>	<b>\$389,270,300</b>	
<b>Net Present Value (NPV)</b>					<b>\$477,363,000</b>	One-time + ongoing over 20 years
Discount Rate Applied	5.5% assumed rate applied to market value and taxable retail sales					
Inflation Rate	3.0% assumed rate applied Property, sales and B&O tax sources					
Cap on Annual TAV Appreciation	1.0% on property tax increases					
Residential Turnover Rate	15.0% annual homeowner sales					
Commercial Turnover Rate	5.0% annual sales of on-site commercial property					
*Note: Annual tax at build-out is based on full collections without property tax abatement.						



Table 4-8 Economic Impact Modeling—Washington Brownfields Reuse, Port of Bellingham, Tax Revenues by Jurisdiction

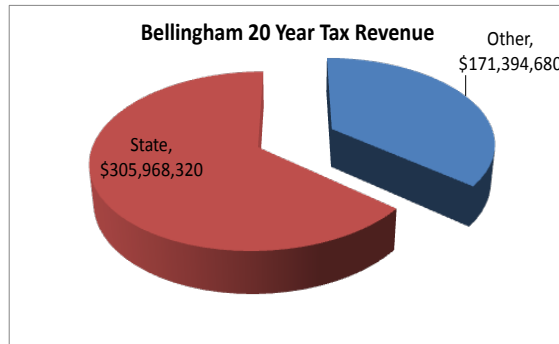
TAX REVENUE ALLOCATION BY JURISDICTION	Annual Taxes @ Build-out 100% Taxes	Cumulative NPV - 20 Years	Comments
<b>ESTIMATED ONE-TIME TAXES</b>			
State of Washington		\$67,030,950	Sales tax and REET
City		\$11,559,640	Sales tax and REET
County		\$3,800,840	Admin share of City sales tax
Transit		\$5,701,270	
Other		-	
<b>Total One-Time Taxes</b>		<b>\$88,092,700</b>	Sales tax on construction + REET
<b>ESTIMATED ANNUAL REVENUES</b>			
State of Washington	\$17,171,410	\$238,937,370	Property, sales and B&O tax sources
City	\$4,767,400	\$61,479,870	Property and sales tax
County	\$1,799,240	\$22,748,070	Property and dedicated sales tax
Port	\$386,260	\$4,627,840	Property tax
Schools	\$3,771,070	\$45,181,750	Property tax
Public Transit	\$773,200	\$11,050,450	
Other Special Districts	\$259,420	\$3,108,150	Property tax—EMS
Marina State and Local Taxes	\$154,000	\$2,136,800	Based on BST analysis
<b>Total Ongoing Tax Revenues</b>	<b>\$29,082,000</b>	<b>\$389,270,300</b>	Property, sales and B&O tax sources
<b>TOTAL NET PRESENT VALUE (NPV)</b> (One-Time + Ongoing Revenues)		<b>\$477,363,000</b>	One-time + ongoing revenues

Table 4-9 Economic Impact Modeling – Washington Brownfields Reuse, Port of Bellingham, Economic Multiplier Benefits

STATE AND LOCAL	Direct Impact	Economic Multiplier	Multiplier Impact*
<b>Construction Impacts</b>			
On-Site Employment	7,809	1.63	12,702
Total Payroll	\$416,037,811	1.40	\$581,720,400
Average Annual Wage	\$53,300	-	\$45,800
Business Revenue	\$1,262,591,000	1.41	\$1,780,398,200
<b>Ongoing Operations</b>			
On-Site Employment	6,729	1.78	11,963
Total Payroll	\$303,688,420	1.65	\$502,151,200
Average Annual Wage	\$45,100	-	\$42,000
Business Revenue	\$1,793,226,312	1.34	\$2,401,014,400
* Note: Calculated as sum of direct, indirect, and induced effects.			

The state, on the other hand, theoretically could see \$305.9 million against the MTCA investment estimated between \$45 million and \$55 million. In either cleanup cost scenario, this represents a ratio of 6:1 or 7:1 in tax revenues to MTCA funds over the period.

Figure 4-4 Estimated Tax Revenues Generated by Redevelopment of the Bellingham Waterfront District



#### 4.2.4 Employment Implications

Job creation is another indicator of economic value of brownfield sites. As indicated in the economic benefits analysis for each case study, there are two types of job generation: one is the one-time construction jobs that are measured in job years and the other is the ongoing estimated job creation based on standards for the projected build-out by land use, e.g., commercial, retail, manufacturing, residential.

Each of the communities has build-out projections per land-use type that yields a potential job creation total. This analysis does not assume marginal job creation, just the total going forward. The reality is that these sites may have some existing minimal employment, but they are being redeveloped not only because of their environmental impairment but also because they are underperforming or blighted properties. Job creation includes short-term construction and cleanup jobs and long-term ongoing jobs.

The analysis underestimates the construction and cleanup jobs created by the Tacoma and Bellingham case studies. The Tacoma case study estimates these jobs based on the remaining costs to complete cleanup and does not consider work already completed. The Bellingham analysis only considers the estimated state share of cleanup costs remaining. The case of Palouse assumed all costs, state and local, for the entire cleanup.

The following table compares *ongoing* jobs created versus the approximate amount of MTCA fund grants that have been or may be invested in the projects.

Table 4-10 Estimated Job Creation

Project	Projected Annual Employment	MTCA Cleanup Projected or Actual	Ongoing Direct Jobs per Year per \$1,000 of MTCA Funds
Palouse	19.6	\$343,000	0.06
Bellingham	6,729	\$50,000,000	0.13
Thea Foss	1,036	\$30,400,000	0.035
Average Remedial Action Grants (not weighted)			.08

Extrapolating the average job creation ratios from these three case studies, the forecasted Remedial Action Grant need of \$532 million over the next ten years will generate an estimated 18,620 to 69,160 ongoing jobs or a non-weighted average of 42,560. That level of employment is equivalent to the total of the University of Washington (27,000), Boeing (10,000), and Washington State University (5,770) combined. That represents the direct ongoing jobs and, as the analysis points out, there is a 1.78 multiplier creating some projected 75,750 additional indirect, related jobs on the average.

Using the Ecology model, the combined 20-year annual payroll estimate at full build-out and occupancy is \$572.9 million and the combined annual business revenue at full build-out is projected to be \$2.5 billion.

It should be noted that this is a cursory review and the extrapolation should be tempered with these important considerations:

- The single largest factor in the job forecast is the projected density of use and type of use. Warehousing, for example, results in far fewer employment opportunities than office uses or manufacturing. Density is the result of a number of factors, including market strength and land use regulations.
- The forecast assumes a full build-out and the reality is that it will occur over time and the job benefits will be realized over time with the property's ability to absorb market demand.
- Most significant, the nature of the remediation project is critical. Some projects may afford limited development potential because there is no upside development potential. A case in point would be a remediation effort that was all in water and that would have no measurable impact on the adjacent upland property, or for which there was no marginal increase in marine commercial activity.

- Also assumed in the analysis is that these are net marginal tax revenue increases, but there will likely be increased service demands to support the development.

All in all a robust cleanup program geared toward brownfield redevelopment has a positive economic impact on the state and local communities. These cleanups use land and infrastructure wisely from an investment perspective and create future employment opportunities that would not otherwise exist.

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## 5 SUMMARY OF FINDINGS

### 5.1 Lessons from Other States' Cleanup Programs

Washington State's cleanup program is unique among such programs throughout the nation largely because of the availability of a dedicated revenue stream. In states where ongoing revenue is lacking, brownfield programs struggle to secure cash funding for smaller, short-term projects as well as to ensure flexible and equitable distribution of those funds. The states reviewed in this study did, however, provide some program elements worthy of consideration by Washington State:

- A number of states offer some type of tax incentives for private cleanup work with varying restrictions and limits, but with fairly broad definitions of available costs.
- Likewise, a number of states have modified their tax increment statutes to include brownfield site cleanup as an eligible cost beyond the more traditional infrastructure investments.
- Environmental insurance is becoming more commonly employed by states as they strive to control costs and secure funding. Six state insurance programs warrant further review.

### 5.2 Analysis of Remedial Action Grant Funding

- The MTCA statute directs that 53 percent of the generated funds be placed in an LTCA that is forecasted at \$135million to \$140 million per biennia for the next ten years.
- Approximately 17 percent of the total MTCA revenue stream, by policy, is projected to be allocated to Remedial Action Grants; this is 32 percent of the LTCA portion. In the last budget cycle the request for Remedial Action Grant funds was reduced from \$45 million to \$37.5 million because of statewide economic conditions.
- Over the last 20 years, the state has invested \$345 million through MTCA Remedial Action Grants to match \$290 million in local government funds to undertake some 242 cleanup projects.
- Historically, 70 percent of the total costs of cleanup projects funded by Remedial Action Grants were in excess of \$2 million. In the recent forecast for 2009-2019, that percentage increases to 96 percent.
- Other tools and financial incentives to assist communities in undertaking brownfield projects are limited constitutionally. That impairs a community's ability to capture increased property values and redirect them to stimulate redevelopment.

## **5.3 Challenges Facing Remedial Action Grant Program**

### **5.3.1 Demand Exceeds Projected Funding**

The MTCA fund allocates funds to provide an incentive and resource to local governments to undertake the cleanup of publicly owned sites in the state. That funding level is not adequate to keep up with the ongoing demand, which is outdistancing available resources by 2:1.

### **5.3.2 Uncertainty**

The cleanup partnerships between the state and local governments are challenging and require a leap of faith for the local grantee. The availability of future state funding is subject to annual state appropriation and that circumstance creates a well-founded hesitancy in local governments.

- The average cleanup project funded by Remedial Action Grants takes approximately nine years to complete, quite often bridging four biennium budget cycles.
- Ecology experience indicates that virtually every cleanup exceeds initial cost estimates despite the best attempts at estimating by the grantee, consultants, and the state.
- New accounting standards (GASB 49) treat environmental liabilities more conservatively and do not recognize grant promises as bookable assets that would offset booked environmental liabilities.

### **5.3.3 Diversity of Sites and Financial Need**

Cleanup projects vary greatly in size and complexity, as do the financial strength and experience of grantee agencies. Therefore, there is a practical need for a range of tools available to local government to encourage cleanup.

- Cleanup projects range in size from small (under \$2 million) to well over \$10 million.
- In the forecast for the next ten years of Remedial Action Grant funding needs, the small sites will account for 53 percent by number of locations but require only four percent of the funds, while the larger sites will require 96 percent of the funds.
- One site, the Duwamish Waterway, is forecasted to require \$175 million, or one third, of all of the funds allocated for Remedial Action Grants over the next ten years.
- Remedial Action Grants are managed on a reimbursable basis only, which requires that a grantee manage what can sometimes be a relatively large cash-flow liability.

### **5.3.4 Economic and Community Benefits of Remedial Action Grant Program**

Using MTCA funds to encourage cleanup efforts ultimately leverages public and private investment that can stimulate economic growth.



- The cleanup of contaminated properties is often associated with an ensuing redevelopment effort that provides economic lift to a community. That lift is realized as communities proceed past cleanup to invest in needed infrastructure that stimulates vertical commercial, institutional, and residential development.
- In three case studies reviewed in the study, ongoing employment payrolls leverage MTCA funds 7:1, business revenues 32:1, and tax revenues 6:1.

## 5.4 Flexible Strategy

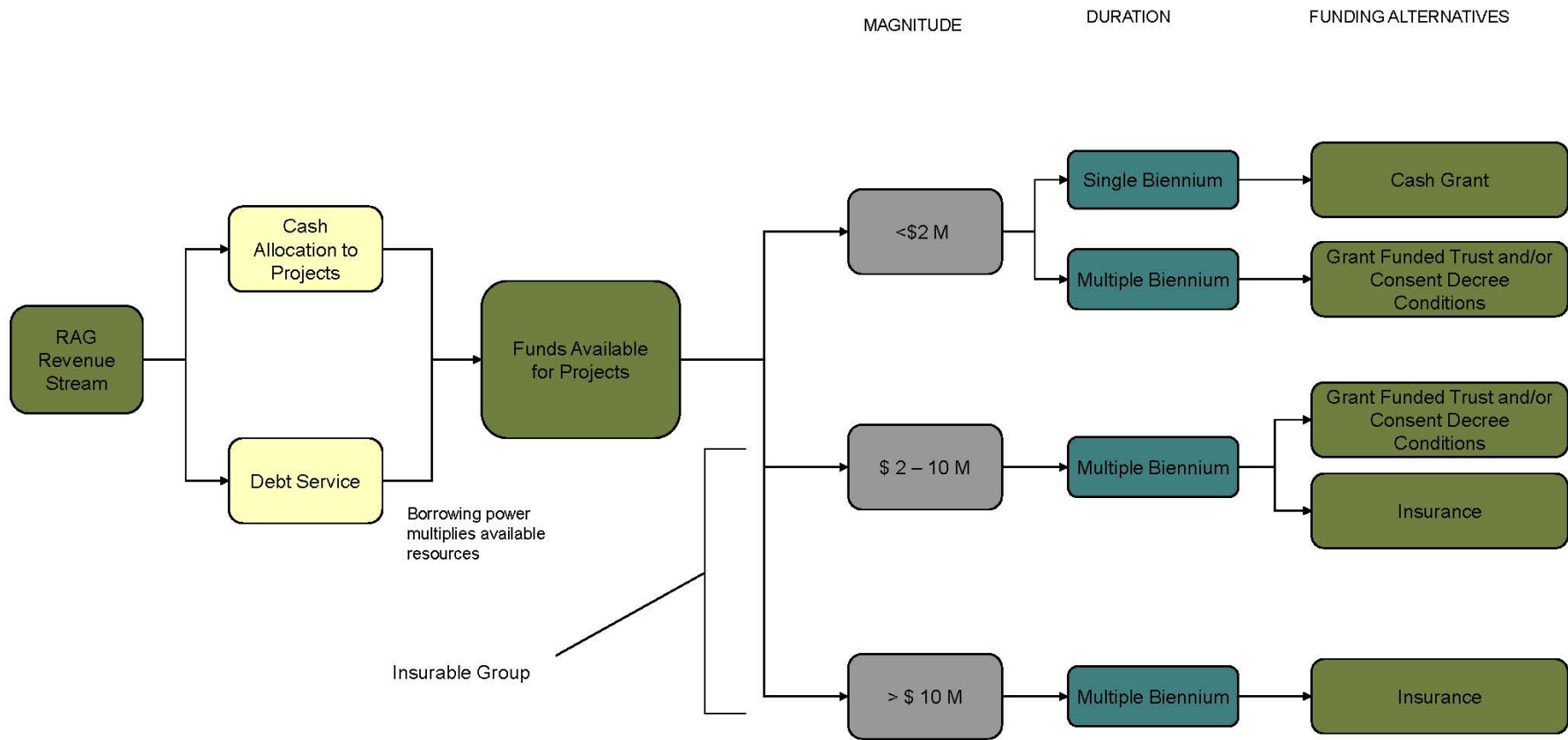
This report has explored techniques currently in use nationally and aligned those with the most pressing needs for the Washington State Remedial Action Grant program. The alternatives considered here are intended to suggest ways to make the program even more robust and effective than its historical performance. It has taken into account the analytical work undertaken by the University of Washington (reference?) as well as the Phase II Economic Impact Modeling Report prepared by E. D. Hovee. Further, the work has relied on data, observations, and insights provided by Ecology staff and, most important, the oversight of the state's governmental partners making up the report's Steering Committee.

This analysis concludes that a combination of tools would provide an effective strategy for addressing the challenges to the Remedial Action Grant program. These tools include:

- Borrow against state MTCA revenues to increase available funds in aggregate.
- Offer tax abatements and credits to create an incentive for local governments to participate.
- Promote existing tax-increment-type programs to include cleanup costs as eligible capital expenses.
- Pursue greater use of environmental cost cap and EIL insurance products.
- Create model consent decrees that link the requirement that a local government perform to the receipt of a Remedial Action Grant.
- Develop GFTs for deposit of grant proceeds.
- Provide state assurances to local governments to improve their ability to secure financing for interim and ongoing fund needs.
- Allow for the creation of Brownfield Development Authorities.
- Continue with the existing cash-basis grant program.

The employment of these tools is subject to further discussion that places their effectiveness in context with both the magnitude and duration of cleanup efforts. Figure 5-1 describes a potential strategic path of consideration in approaching projects in the future.

Figure 5-1 Integration of Funding Alternatives



This diagram demonstrates how a variety of these financial alternatives can be employed in a complementary approach to address the varying needs of projects of different magnitude and duration.

Unless dramatic changes are made in the portion of funds allocated from the LTCA to Remedial Action Grants, specifically, more than doubling the current allocation, the best alternative to making funds available is to borrow against the revenue stream. The creation of a rolling fund pool could provide sufficient funds to meet the projected needs, while reserving the required portion of biennium funds for the “cash” grant projects under \$2 million.

As projects with varying magnitudes and durations are considered, there are tools available that can provide further certainty and cost control assurances that protect both the state and the grant recipients.

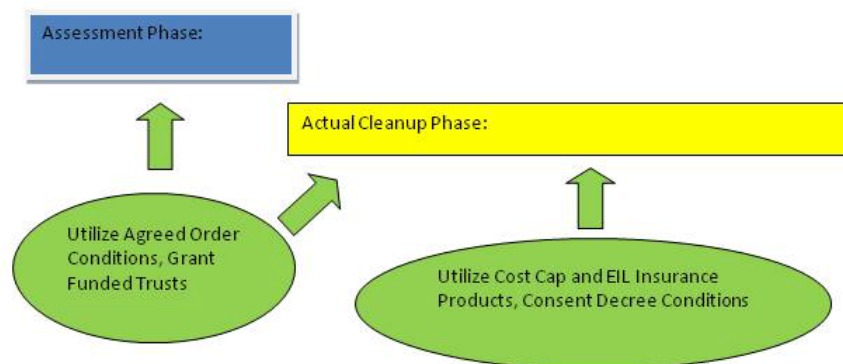
The smaller projects, those defined as less than \$2 million, could avail themselves of a GFT or “Consent Decree Condition” (or both) that greatly reduces their risk of unavailability of grant funds. This is particularly applicable to projects with a duration that exceeds a biennium. Ecology reports that all but the smallest of projects bridge a biennium. Also impacting this decision for smaller projects is the timing within the biennium in which the funds would be disbursed.

The larger projects, those defined as in excess of \$2 million, could avail themselves of an insurance product in addition to the tools available to smaller projects. Insurance products are traditionally geared for projects in excess of \$10 million; however, under certain conditions insurance would be available to projects of between \$2 million and \$10 million and even for pooled projects under \$2 million.

A review of Ecology grant-specific expenditures reveals that approximately 15 percent of total project costs are used for the assessment phase of a project, typically the RI/FS phase, and that 85 percent are expended following the cleanup action plan. The insurance industry is reluctant to assume risk transfer before a project has had a decision of record made because the risk exposure is too great.

As a result, it is unlikely in most circumstances that the assessment phase can be insured. The strategic path forward for this refinement is illustrated in Figure 5-2. Note that the suggestion of including language to condition consent decrees on grant funding could also be applicable to agreed orders to offset risk associated with large assessment projects.

Figure 5-2 Strategic Path Forward for Refinement



## Alternatives that may require Legislative Actions

Table 5-1 Legislative Actions for Alternatives

Alternatives	Legislation Required
State borrowing against MTCA revenues	Legislation that would specifically authorize the issuance of revenue bonds and the pledging of revenues
Utilize cost cap and EIL insurance products	No
Create tax incentives	Yes after review by Joint Legislative Audit and Review Committee
Expand LIFT and LRF programs	Yes, to clarify that existing programs can include remediation costs as eligible
Model consent decrees	No, unless state wanted to restrict availability to eligible local governments
GFTs	Yes
State assurances to support local borrowing	Yes, investment letters, legislation authorizing local governments to pledge MTCA funds for debt service repayment
Create Brownfield Authorities	Yes
Continue cash program	No

## 5.5 Further Considerations

### 5.5.1 Create Flexibility for Local Government's Match

The current grant system does not allow local governments to use funds recovered from other PLPs as its share of a grant. This creates an economic disincentive for participation by other PLPs. While the reluctance of the state to provide funding for other PLPs is understandable, the practical effect is that the grants are used to cover more of the cost. Ecology should develop more flexibility in grant matching funds. This would allow local governments to approach other PLPs and use the grant funds as a means of leveraging participation. For example, other PLPs' funding could be used as part of a local government's match for grants that are used to investigate the site or develop a feasible alternative. The early involvement of other PLPs in the investigation and alternative remedy analysis would create a greater possibility of later participation in the cleanup. Without this flexibility, local governments lack any incentive to pursue other PLPs.

### 5.5.2 Reporting Economic Benefits

The economic benefits of remedial action projects are often estimated at the onset; however, the actual after-the-fact results are not reported. Ecology should consider a grant condition that requires recipients to make periodic reports on the spinoff benefits in addition to any

environmental monitoring required. This will enable a true database to be developed to be used in the future to focus cleanup efforts.

### **5.5.3 State as Environmental Insurance Provider**

This analysis has considered the availability of commercial environmental insurance for cost cap and liability protection. Those products require a premium to offset the risk and also require prefunding in some circumstances. The state could consider self-insuring the risk. The commercial insurers spread their risk across a wider risk pool. Additionally, the commercial carriers will provide coverage for the full cleanup amount. For the state to consider self-insuring it would either move to the full insurance of the project or insure only its own portion. The analysis will have to specifically weigh the cost, risk, and transactional implications.

### **5.5.4 Approach for Large Projects (Duwamish Site)**

Due to the magnitude of the Duwamish Site (one-third of the projected RAG budget over the next ten years), financing for this site should be considered independent of the overall financial strategy. While the alternative explored in this report are applicable to the Duwamish Site, the financial protections for the LTCA will be inordinately influenced by the demands for this project. Possible approaches could include stand alone financing through debt issuance, independently crafted environmental insurance or federal participation.

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

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Appendices A through D are in a separate document titled **Model Toxics Control Act, Remedial Action Grants, Alternative Financing Evaluation, Appendices** (Publication No. 10-09-043A)

Appendix A – Other State Programs Survey

Appendix B – List of Washington State Tax Incentives

Appendix C – Investment Letter Sample

Appendix D – Remedial Action Grant Historical Summary