



DEPARTMENT OF
ECOLOGY
State of Washington

Small Business Economic Impact Statement

Chapter 173-700 Wetland Mitigation Banking

Required by the Regulatory Fairness Act

March 2009
Publication no. 09-06-014

Publication and Contact Information

This report is available on the Department of Ecology's website at www.ecy.wa.gov/biblio/0906014.html

For more information contact:

Publications Coordinator
Shorelands and Environmental Assistance Program
P.O. Box 47600
Olympia, WA 98504-7600
Phone: (360) 407-6096

Washington State Department of Ecology - www.ecy.wa.gov/

- Headquarters, Olympia 360- 407-6000
- Northwest Regional Office, Bellevue 425- 649-7000
- Southwest Regional Office, Olympia 360- 407-6300
- Central Regional Office, Yakima 509-575-2490
- Eastern Regional Office, Spokane 509-329-3400

If you need this publication in an alternate format, call the Shorelands and Environmental Assistance at (360) 407-6089. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Small Business Economic Impact Statement

Chapter 173-700 WAC Wetland Mitigation Banking

Required by the Regulatory Fairness Action

Shorelands and Environmental Assistance Program
Washington State Department of Ecology
Olympia, Washington

This page is purposely left blank

Executive Summary

Based on research and analysis required by the Regulatory Fairness Act – RCW 19.85.070 – Ecology has determined that the proposed rule (Chapter 173-700 WAC) has a disproportionate impact on small business. Therefore, Ecology included cost-minimizing features in the rule where it is legal and feasible to do so.

Ecology estimated total (present value) compliance costs of \$13.9 million associated with compliance with the standards, monitoring, recordkeeping, and financial assurance set in the proposed rule.

For wetland mitigation banking businesses that may be impacted by the proposed rule, this resulted in cost-to-employment ratios of between \$151 thousand per employee for the largest businesses, to the full amount of \$13.9 million per employee for the smallest investor-only firms. As based on this measure, the proposed rule does impose disproportionate costs on small businesses.

To reduce prospective compliance costs for small businesses, Ecology included cost-reduction and flexibility provisions in the proposed rule. These provisions include:

- Streamlining wetland mitigation bank certification to simplify application and compliance decisions.
- Optional financial assurance for construction (when bank credits are not released prior to construction).
- Optional financial assurance for monitoring (when bank credits are not released prior to achievement of performance standards).

The impact of the proposed rule on jobs – accounting for the flow of money through the state economy as based on a model developed by the state Office of Financial Management – is expected to be a loss of between 21 and 27 jobs. This range depends on assumptions regarding the industry in which wetland banking businesses have primary focus.

Ecology expects the highest job losses if wetland bankers are primarily land developers or in related fields. If, however, wetland bankers are primarily individual investors or investment groups, Ecology expects jobs created in construction and wetland creation to mitigate job losses in investment fields, and lower overall job loss.

Table of Contents

Note: Due to size limitations relating to the filing of documents with the Code Reviser, the SBEIS does not contain a fully detailed explanation of Ecology’s analysis. The Cost-Benefit Analysis (Ecology publication #09-06-002) contains full details of the analysis, including additional contextual information and methodology.

EXECUTIVE SUMMARY	I
TABLE OF CONTENTS.....	II
SECTION 1: INTRODUCTION AND BACKGROUND.....	1
MITIGATION BANKING	1
REGULATORY BASELINE	1
CHANGES UNDER THE PROPOSED RULE AMENDMENTS.....	2
SECTION 2: COMPLIANCE COSTS FOR WASHINGTON BUSINESSES	2
MITIGATION BANK PROSPECTUS	3
BANKING INSTRUMENT	3
CONSTRUCTION AND FINANCIAL ASSURANCE.....	3
MONITORING, LONG-RUN MANAGEMENT, AND FINANCIAL ASSURANCE	3
MONITORING AND REPORTING.....	4
SECTION 3: QUANTIFICATION OF COSTS AND RATIOS	4
MITIGATION BANK PROSPECTUS	5
BANKING INSTRUMENT	5
ABOUT FINANCIAL ASSURANCE.....	6
CONSTRUCTION AND FINANCIAL ASSURANCE.....	7
MONITORING, LONG-RUN MANAGEMENT AND FINANCIAL ASSURANCE	7
TOTAL COMPLIANCE COSTS	8
TOTAL COST-TO-EMPLOYMENT RATIOS.....	8
SECTION 4: ACTION TAKEN TO REDUCE SMALL BUSINESS IMPACTS.....	8
EFFICIENCY IN CERTIFICATION	8
OPTIONAL FINANCIAL ASSURANCE FOR CONSTRUCTION.....	8
OPTIONAL FINANCIAL ASSURANCE FOR MONITORING	9
SECTION 5: SMALL BUSINESS INVOLVEMENT	9
SECTION 6: NAICS CODES OF IMPACTED INDUSTRIES	9
SECTION 7: IMPACT ON JOBS.....	10

Section 1: Introduction and Background

Based on research and analysis required by the Regulatory Fairness Act – RCW 19.85.070 – Ecology has determined that the proposed rule (Chapter 173-700 WAC) has a disproportionate impact on small business. Therefore, Ecology included cost-minimizing features in the rule where it is legal and feasible to do so.

This document presents the background for the analysis of impacts on small business relative to other businesses, the results of the analysis, and cost-mitigating action taken by Ecology. It is intended to be read with the associated Cost-Benefit Analysis (Ecology publication #09-06-002), which contains more in-depth discussion of the analyses.

Mitigation Banking

The concept of mitigation banking has been around since the 1970s. In 1995, federal agencies released guidance on establishing, using, and operating mitigation banks. Recently there has been a renewed interest in mitigation banks as a regulatory tool, because mitigation banking creates economic incentives for restoring, creating, enhancing and/or preserving wetlands. These economic incentives provide opportunities to change developer behavior in ways that benefit the developer seeking mitigation, and the public and environment that receive wetland services.

Mitigation banks typically involve the consolidation of many small wetland mitigation projects into a larger, potentially more ecologically valuable site. Further, mitigation banks require up-front compensation prior to affecting a wetland at another site. This ensures the success of the mitigation before unavoidable damage occurs at another site. With proper implementation and guidelines, mitigation banking has the potential to:

- Increase ecological benefits.
- Save money for project applicants.
- Improve efficiencies in application and permitting processes.

The proposed rule identifies the criteria necessary for implementing an environmentally sound banking system in Washington State.

Regulatory Baseline

Wetlands are regulated under many statutory authorities. Regulatory agencies from the federal, state, and local governments all have an interest in overseeing wetland protection.

Under current regulatory programs, parties seeking permits for activities that affect wetlands must first avoid and then minimize those effects. Any remaining damage must be compensated for. Historically, the regulatory preference for compensation has been on-site creation, restoration, or enhancement of a wetland. These mitigation efforts have resulted in

several smaller, "postage stamp" wetlands that have had limited success in reaching full functional potential.

Under the proposed rule, the sequencing of avoidance, minimization, and compensation still applies prior to using credits from any mitigation bank. However, in contrast to traditional mitigation activities, mitigation banking requires that compensation—restoration, creation, enhancement, and/or preservation—occurs before a site is affected by a project. Bank projects are put in place prior to allowing unavoidable impacts by a project.

Wetland credits are generated by this up-front activity. Those credits can then be used by the bank sponsor (to mitigate his own wetland impacts at other sites), or sold to another party to offset impacts to wetlands that occur in other locations. Again, only impacts that cannot be avoided or minimized are available for compensation through credits from a mitigation bank.

Changes under the Proposed Rule Amendments

The law, Chapter 90.84 RCW, Wetlands Mitigation Banking, provides no new authority for regulating wetlands, other than wetland bank projects. Current sequencing practices of avoidance, minimization, and compensation still apply. However, the proposed rule (WAC 173-700) focuses on procedures for certifying banks, and the process for implementing banks. Essentially, the proposed rule adds another tool to the regulatory toolbox for protecting wetlands.

To the extent entrepreneurs participate in the creation and functioning of wetland mitigation banks, the rule effectively establishes standards for certifying businesses in the WMB industry. While Ecology analyzed compliance costs in the Cost-Benefit Analysis (Ecology publication #09-06-002) as represented by mitigation bank credit prices (irrespective of whether the bank is run by a developer, entrepreneur, or agency), Ecology analyzed individual costs in this SBEIS, to better present the situation faced by the regulated industry of entrepreneurial wetland bank owners and sponsors.

Section 2: Compliance Costs for Washington Businesses

The proposed rule creates a certification process for wetland mitigation banking (WMB). To the extent that banks are owned or sponsored by entrepreneurs (rather than developers who use the credits themselves; or government agencies), the authorizing statute, Chapter 90.84 RCW, creates an industry of WMB. The proposed rule implements the statute, and regulates that industry.

The certification process for WMB creates a number of costs. While Ecology took WMB credit prices as representative of the present value of all costs per acre in its Cost-Benefit Analysis (Ecology publication #09-06-002), the SBEIS breaks down costs as described below. Costs are quantified to the degree possible in Chapter 3.

Mitigation Bank Prospectus

Prior to the certification of a bank, the proposed rule requires the bank sponsor to create and submit a bank prospectus. The prospectus includes site descriptions of the site, legal context, and planning.

Ecology expects bank sponsors to incur costs for creating a banking prospectus, as based on the time commitment and level of expertise necessary to evaluate each element of the prospectus. Ecology expects that the size of the bank will be an important factor in the level of difficulty and expertise necessary to create the prospectus.

Banking Instrument

The banking instrument describes how the site conditions, management, and credit sales will function in the wetland mitigation bank. This document describes in detail the short-run and long-run qualities and management of the bank, as well as how bank credits will be created and used.

The proposed rule requires the banking instrument to contain some similar or identical information to what is in the mitigation bank prospectus. The banking instrument must also include specific descriptions of how the bank will develop, be monitored and maintained, and how credit banking will function.

Construction and Financial Assurance

Depending on the current state of a bank's land, construction may be required to create wetlands that generate credits for use or sale. This can range from protection of existing, functional wetlands, to wetland restoration, to creation of entirely new wetlands.

Normally, Ecology would not consider full construction costs in its analysis, as they are generally the costs of doing business (creating a product to be sold – credits), rather than costs imposed directly by Ecology. However, because Ecology sets the standards for wetland banks, and defines and evaluates the types of wetland that can be used as mitigation credits, Ecology has included construction costs in its analysis. The proposed rule's standards may impact the size of construction costs, or how construction is performed.

Moreover, Ecology requires financial assurance of construction costs for banks that release credits prior to completing construction. In light of this additional compliance cost, Ecology considered construction costs an important component of evaluating the possible decisions of bankers regarding when to release credits, and whether to incur financial assurance requirements.

Monitoring, Long-Run Management, and Financial Assurance

The proposed rule requires planning and implementation of performance standards, and scheduled monitoring and reporting of compliance. If bank credits are released before

attaining performance standards, the proposed rule requires financial assurance for monitoring and maintenance expenses. Financial assurance is based on the future monitoring and maintenance costs for the operational life of the bank.

The proposed rule requires financial assurance for long-run management of the bank. Financial assurance is based on future costs of annual maintenance, and on expected inflation. It can be funded through contract mechanisms such as endowments or trusts, and must ensure an ownership transfer mechanism for the bank.

Monitoring and Reporting

The proposed rule requires wetland bankers to monitor and report on conditions at the bank. The bank instrument describes, in part, what variables will be monitored, and how they will be monitored and evaluated. The plans and protocols for monitoring the wetland bank, and the schedule for reporting site conditions are described in the banking instrument submitted by the banking certification applicant.

Monitoring and reporting includes, but is not limited to:

- Document baseline conditions after construction.
- Document development of the site.
- Document attainment of performance standards.
- Identify possible problems at the site.

These items document data and methodologies for bank quality evaluation over time, as based on data gathered at the site.

Section 3: Quantification of Costs and Ratios

Ecology quantified all costs for which reliable data and analytic methods were available. The costs associated with creating and certifying a bank are correlated with the size of the bank. Ecology estimated that the cost per acre of a wetland bank diminishes as the size of the bank increases.

The determination that the proposed rule may impose disproportionate costs on small business was a more complicated task, because the size of the bank is not correlated with the bank sponsor's number of employees. Wetland banking is a capital-intensive venture – able to run primarily off of finances, without large contributions of labor over time – unlike an industry that produces goods, or provides ongoing human services. This means a bank of any size can be owned or sponsored by a few investors, who contract construction and monitoring activities to other firms, and do not have many employees.

Data on other measures of business size (sales, labor hours) was not available or reliable for the WMB industry in Washington State. While these may have been more representative of the size of businesses, and of their ability to bear the burden of compliance costs, Ecology decided to use

the most consistently available data in this analysis. This was done to have the most representative sample of businesses possible, and to generate confident results and conclusions.

Ecology also evaluated costs-per-employee based on the attributes of banks that are currently planned. These banks are the minimum set of banks that will need to comply with the proposed rule for certification. They are primarily small businesses (individuals or small groups of investors). Here, also, Ecology concluded that the proposed rule may impose disproportionate costs on small businesses.

This chapter describes the methodology and results of Ecology's estimation of compliance costs for wetland banks, and possible cost-to-employment ratios for small and large firms.

Mitigation Bank Prospectus

To develop a prospectus for a proposed wetland mitigation bank, a bank sponsor must directly, or through consultants, expend time and expertise. Ecology assumed that creating a prospectus will take approximately 1,000 hours (approximately six months of full time work). The level of analytic work required involves a high degree of expertise. Ecology estimated the per-hour cost of this labor as \$44.25 per hour, the expected 2009 wage rate for management and administrative positions in the Pacific Census Division of the United States. Ecology expanded the scope of the wage estimate beyond Washington State because some existing bank sponsors or consultants are located in nearby states. Ecology also allowed for hiring consultants from states with similar mitigation banking procedures, and with a similar geographic area. Ecology expects, however, that bank sponsors will seek to minimize costs while maintaining the necessary level of expertise.

Multiplying wage by the number of hours required to create a prospectus for a wetland mitigation bank, Ecology estimated that a bank will incur a prospectus cost of \$44 thousand. Ecology assumed conservatively that this entire cost is incurred up front, and did not discount it over time, as it could not make confident assumptions about the distribution of time spent on a prospectus.

Banking Instrument

To develop a wetland mitigation banking instrument, a bank sponsor must add to information provided in the banking prospectus. This involves additional information about bank design, construction, sponsor responsibilities, monitoring and maintenance, and how the bank will function and sell credits over time.

Ecology assumed that developing a banking instrument will take approximately 4,000 hours (approximately two years of full time work). This level of analytic work requires a high degree of expertise from both the document's creator, and from engineering or landscape consultants contributing to the work. Ecology could not determine the degree to which a sponsor's effort in creating the banking instrument could be exchanged for consultant effort. This depends highly on the sponsor's area of expertise. To maintain conservative estimates,

Ecology assumed that a consulting landscape expert will be involved in the creation of the banking instrument the entire time the document is being created.

Ecology estimated the per-hour cost of sponsor labor as \$44.25 (see above), the expected 2009 wage for management and administrative positions in the Pacific Census Division of the United States. Ecology estimated the per-hour cost of engineer or landscape architect labor as \$48.44, the expected 2009 wage for engineering and architectural positions in the Pacific Census Division of the United States. Ecology expanded the scope of the wage estimates beyond Washington State because some existing bank sponsors or consultants are located in nearby states. Ecology also allowed for hiring consultants from states with similar mitigation banking procedures, and with similar geographic area. Ecology expects, however, that bank sponsors will seek to minimize costs while maintaining the necessary level of expertise.

Multiplying the wage by the number of hours required to create a banking instrument for a wetland mitigation bank, Ecology estimated that a bank will incur a banking instrument cost of \$177 thousand for creation of the instrument, plus \$194 thousand for engineering or design expertise. The total expected cost is \$371 thousand. Ecology assumed conservatively that this entire cost is incurred up front, and did not discount it over time.

About Financial Assurance

Ecology estimated costs over time and present value financial assurance for construction, monitoring, and long-run management. Present value is the current dollar equivalent of a flow of costs over time, accounting for inflation, and for the opportunity cost of not being able to invest those dollars in the future if they are spent up front. In other words, the present value is how much money a wetland banker would need to invest now to be able to pay a series of future (say, annual) costs.

In the typical present value (PV) calculation, Ecology calculates PV costs based on an expected annual inflation rate, and expected return to invested capital for the industry in question. This accounts for both the return on investing that money before the costs occur, and for the value of each dollar lost to inflation over time.

In this standard Ecology calculation, the expected costs of future construction and the money necessary up-front to cover those costs (PV) are identical. If financial assurance is calculated in this fashion, there is no difference over time between paying construction (or maintenance; or long-run management) costs as they occur, and having enough funds for up front as with financial assurance.

Construction and Financial Assurance

Ecology surveyed available wetland construction costs in Washington State. Ecology calculated a median cost of nearly \$70 thousand per acre.¹ At the median size of 160 acres, for mitigation banks that may be impacted by the proposed rule, this totals \$11.2 million. This value is nominal (does not account for inflation), as reported in available data. Ecology could not determine the distribution of costs over construction time for this value, and so made the conservative assumption that the entire (undiscounted) amount was required prior to construction. This is likely to be a conservative overestimate of a financial assurance of construction costs.

Rather than attempt to disentangle the imposed requirements from the basic costs of doing business, Ecology chose to estimate entire wetland construction costs, and treat them as though they were wholly composed of requirements set by the proposed rule. The construction cost estimated here is an overestimate of the actual incremental costs imposed by the proposed rule.

Monitoring, Long-Run Management and Financial Assurance

Ecology was unable to gather specific data on the long-run costs of monitoring and management of wetland banks, independent of overall costs, or as distinct from construction costs. Ecology, therefore, used existing wetland bank credit prices to estimate, first, annualized costs and, second, the portion of up-front financial assurance costs that reflects long run monitoring and management costs. Ecology could do this, based on likely interest and discount rates, because standard economic theory indicates that the cost per acre of wetland bank credits should reflect the discounted present value of long run construction, monitoring, and maintenance costs, divided by the number of acres in a bank.

Based on an Army Corps of Engineers survey (See the associated Cost-Benefit Analysis, Ecology publication #09-06-002, for details), Ecology calculated that the median price of wetland bank credits is \$84 thousand per acre, in the Northwestern Corps Division. Using an annual discount rate of 1.88 percent,² Ecology calculated an annualized cost of construction, monitoring, and maintenance of approximately \$5 thousand per acre, per year. Subtracting the annualized cost of construction over the life of the bank (see above section; divided by the median acreage of wetland banks in the state) of approximately \$4 thousand per acre, Ecology calculated an annualized cost of long-run monitoring and maintenance of \$802 per

¹ Ecology chose the most conservatively large estimate of wetland creation costs, namely, complete construction of a wetland. This option was deemed more expensive than preservation or restoration of existing wetlands.

² Ecology uses a twenty-year timeframe for analyzing long-run and ongoing present values, as it typically encompasses the meaningful time period before discounted future values diminish below significant levels. Ecology used a discount rate of 1.88%, which equals the expected rate of return on invested capital (the risk-free rate of US Treasury I-Bonds, adjusted for inflation). When possible, Ecology uses an industry-specific rate of return, but could not determine this rate for the diverse set of sponsors – investor groups, individual owners, and development groups – involved in wetland mitigation banking.

acre. When accounting for inflation and discounting over time, this is equivalent to a payment of \$2.3 million up front for the median size of wetland bank in the state.

Total Compliance Costs

Ecology estimated total compliance costs to be \$13.9 million for a median wetland mitigation bank. These costs account for future inflation and opportunity costs of money where possible, and are assumed to be up-front costs, where distribution of costs over time was not available, and present value discounting was not possible.

Total Cost-to-Employment Ratios

Ecology calculated cost-to-employment ratios to examine the relative impacts of the proposed rule on small versus large businesses. Other measures of business ability to cope with compliance costs (sales, hours of labor) were not available, due to the composition of bank-sponsoring businesses – largely investment or development companies, or individual and small groups of investors. Typically, these firms’ revenues are returns to investment, rather than sales, and they do not have explicit labor hours as inputs to production, as would be seen with traditional manufacturing of goods.

Ratios of total cost to employment ranged from \$150,596 per employee for large businesses, to the full cost of \$13,854,850 for the smallest business involving a single investor. The median-sized business would incur a ratio of cost-to-employment of \$3,463,713 per employee. It is clear from these ratios that the proposed rule creates a disproportionate impact on small business, as based on employment rolls. This means Ecology must make reasonable effort to mitigate these disproportionate impacts.

Section 4: Action Taken to Reduce Small Business Impacts

Ecology took a variety of actions in the proposed rule to reduce both the disproportionate impact of compliance costs on small businesses, and to reduce compliance costs by allowing flexibility for internal business decisions made by wetland mitigation banks.

Efficiency in Certification

The proposed rule creates a streamlined certification, improving efficiency and reducing transaction costs for all businesses. It allows certification of banks through local, state, and federal permitting authorities concurrently. In particular, this reduction primarily in time costs is likely to be relatively large for small businesses operating smaller, less complicated, banks, and to reduce the disproportionality of costs.

Optional Financial Assurance for Construction

The proposed rule only requires financial assurance for construction if credits are released prior to completion of construction. This gives all businesses greater flexibility in their

internal decisions regarding cost reductions and profit maximization. It allows small businesses, in particular, to address their unique needs, as they are more likely to find funding financial assurances difficult.

Optional Financial Assurance for Monitoring

The proposed rule only requires financial assurance for monitoring if credits are released prior to attainment of a wetland bank's performance standards. This gives all businesses greater flexibility in their internal decisions regarding cost reductions and profit maximization. It allows small businesses, in particular, to address their unique needs, as they are more likely to find funding financial assurances difficult.

Section 5: Small Business Involvement

Ecology extensively involved businesses in the development of the proposed rule, including small businesses. Ecology involved the business community, and especially those businesses that might be disproportionately impacted by regulation, because they provide unique input into the views of the regulated community.

A large part of business involvement began during the pilot phase of the rulemaking, through the Pilot Program Advisors Group. The Advisors Group assisted Ecology in implementation of the Wetland Banking Pilot Program. In addition, the Advisors Group assisted in revisions to the proposed rule language. The Advisors Group consists of:

- Local, state, and federal agencies.
- Conservation and environmental interests.
- Mitigation bankers, including small businesses prospectively impacted by the proposed rule.
- Agriculture and business communities, including small businesses as represented by professional organizations.

Section 6: NAICS Codes of Impacted Industries

This section lists NAICS codes for industries Ecology expects to be impacted by the proposed rule.³ The list does not include public entities such as state and local agencies that may also be impacted by the proposed rule, as these are not private businesses.

Wetland mitigation bank sponsors are largely investment based in Washington State. This ranges from individuals or small groups of individuals contracting with management firms to bank on their own land under a Limited Liability Corporation business, to interstate investment and land development firms.

³ North American Industry Classification System (NAICS) codes have largely taken the place of Standard Industry Classification (SIC) codes in the categorization of industries.

Ecology faced difficulty in researching and assigning NAICS codes to wetland mitigation banks in Washington State, as this industry is not yet thoroughly defined in the codes' structure. The investors and firms themselves, however, generally fall into three categories:

- 523910: Individuals investing in financial contracts on own account
- 237210: Land Subdivision
- 5222: Non-depository Credit Intermediation

The existing NAICS system has difficulty suiting industries such as wetland mitigation banking. This is, in part, because the industry is relatively new, and consists of a variety of investor and firm types. Moreover, it is because – unlike typical real estate sales – a wetland bank provides the entire set of long run quality and maintenance services in the package of a credit. In this sense, the wetland bank does not create goods in the traditional physical sense (for which the standard industrial classification systems were designed), so much as it provides a long-run service.

In response to the need for classification of service sector industries (as well as international firms), the US Census Bureau has been developing the North American Product Classification System (NAPCS) since 1999, but the system is not yet complete. The Census Bureau writes of the NAPCS:

Whereas NAICS focuses on the input and production processes of industries, NAPCS will classify all the outputs of the industries defined in NAICS. The long-term objective of NAPCS is to develop a market-oriented, or demand-based, classification system for products that (a) is not industry-of-origin based but can be linked to the NAICS industry structure, (b) is consistent across the three NAICS countries, and (c) promotes improvements in the identification and classification of service products across international classification systems, such as the Central Product Classification System of the United Nations.

In light of the limitations on available NAICS classifications, Ecology listed classifications that are likely to be impacted by the proposed rule, to the best of its ability. In future, Ecology hopes to use the NAICS and NAPCS in conjunction to describe affected industries.

Section 7: Impact on Jobs

Ecology used the Washington State Office of Financial Management's 2002 Washington Input-Output Model (OFM-IO) to estimate the proposed rule's first-round impact on jobs across the state. This methodology estimates the impact as reductions or increases in spending in certain sectors of the state economy flow through to purchases, suppliers, and demand for other goods.

Ecology assumed that compliance expenditures on skilled consultants in engineering or landscape fields would result in increased revenues to that industry. Ecology assumed that construction financial assurance would go to the construction industry, and that compliance costs were lost to at least one of the industries listed in Section 6.

Ecology estimated based on the OFM-IO model that the proposed rule may result in economy-wide job losses between 21 and 27 jobs overall. If businesses sponsoring wetland banks in Washington State fall primarily into the land development industry, overall job losses will be the highest, with primary losses in construction field. If businesses sponsoring wetland banks fall primarily into finance and related investment fields, net employment gains may occur, with increased employment in the construction field mitigating losses in the credit intermediation and other investment industries.