



Residential Marine Shoreline
Stabilization Proposed Rule

Small Business Economic Impact
Statement

Final Report | September 16, 2022

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INTERVIEWED IN JULY AND AUGUST 2022**

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LIST OF ACRONYMS AND ABBREVIATIONS

APPS	Aquatic Protection Permitting System
B&O	Business and Occupation
HCIAG	Hydraulic Code Implementation Advisory Group
HPA	Hydraulic Project Approval
NAICS	North American Industry Classification System
ORIA	Washington State’s Office for Regulatory Innovation and Assistance
RCW	Revised Code of Washington
RFA	Regulatory Fairness Act
SBEIS	Small Business Economic Impact Statement
SMA	Shoreline Management Act
SMP	Shoreline Master Program
WAC	Washington Administrative Code
WDFW	Washington State Department of Fish and Wildlife

EXECUTIVE SUMMARY

This report evaluates the potential costs to businesses of compliance with a Washington State Department of Fish and Wildlife (WDFW) proposed rule that updates Washington State’s Hydraulic Code to clarify how residential shoreline property owners should comply with recent legislation regarding residential marine shoreline stabilization.¹ This Small Business Economic Impact Statement (SBEIS) was developed in accordance with the Regulatory Fairness Act (RFA), Revised Code of Washington (RCW) Section 19.85 to determine whether the proposed rule would result in more than minor and disproportionate cost impact on small businesses. The primary sources of information for this analysis include the following:

- Information gathered through outreach to county and municipal planners, businesses providing the services required by the proposed rule, and residential property owners who have experience with marine shoreline stabilization replacement;
- County and municipal Shoreline Master Program (SMP) documents;
- Tax parcel data identifying land use types along marine shorelines;
- Data identifying location of existing shoreline stabilization along the marine shoreline; and
- Historical Hydraulic Project Approval (HPA) permit data provided by WDFW.

BACKGROUND

Washington State’s Hydraulic Code (WAC 220-660-370) outlines requirements for shoreline bank protection in saltwater (i.e., marine) waters of the state in order to protect fish life from the habitat alteration that can result from certain types of shoreline protection. The existing requirements specify that a person wishing to place *new* shoreline protection, or replace existing protection with *protection that extends waterward of the existing protection*, utilize the least impacting technically feasible protection technique, and include a site assessment, alternatives analysis, and design rationale completed by a qualified professional in their permit application. In 2021 the State Legislature passed Substitute Senate Bill 5273, which amends RCW 77.55.231 to extend these requirements to the *replacement* of existing shoreline stabilization on

¹ This report uses the term “shoreline stabilization” to refer broadly to the various shoreline interventions that are used to prevent or reduce erosion of the shoreline and protect upland property and structures, including passive or nature-based techniques, soft shore techniques, and hard structures such as bulkheads.

residential properties. WDFW is now updating WAC 220-660-370 to be consistent with RCW 77.55.231, and to provide additional clarification with respect to the requirements.

SCOPE OF PROPOSED RULE

The proposed rule affects activities occurring on residential properties along Washington's marine shorelines, including the shorelines of Puget Sound, the Strait of Juan de Fuca, the outer coast, and along coastal estuaries. It does not change existing requirements with respect to commercial or other types of properties, nor does it affect activities occurring on residential properties along non-marine shorelines (e.g., rivers, ponds, or inland lakes). The proposed rule specifically addresses the requirements related to the *replacement or rehabilitation* of existing shoreline stabilization, and does not change the requirements for installation of new structures, or replacement of existing structures where the replacement occurs waterward of the existing structure.

BASELINE FOR THE SBEIS

RCW 77.55.231 requires that residential property owners on all marine shorelines of Washington State that wish to replace existing shoreline stabilization use the least impacting technically feasible alternative and submit a site assessment and alternatives analysis as part of their permit application package. In certain jurisdictions, county and municipal Shoreline Master Programs (SMPs) already specify that a qualified professional must be used to develop those reports. Although the requirement to use a qualified professional is not specified for all jurisdictions, interviews with county and municipal planners conducted in July and August 2022 suggest that it would be impossible or very challenging for an individual without the relevant professional background to fulfill the necessary requirements.² It is also WDFW's experience that permit applicants typically employ a qualified professional to develop necessary reports even absent a specific requirement to do so.³ Therefore, residential applicants looking to replace their shoreline stabilization in the counties where SMPs do not describe that a qualified professional must be hired for the analyses are still likely to hire qualified professionals for this purpose.

PROPOSED RULE REQUIREMENTS

The proposed rule would update WAC 220-660-370 to implement the RCW 77.55.231 requirement for HPA permit applicants for residential marine shoreline stabilization or armoring replacement or rehabilitation projects. Specifically, the proposed rule includes the following:

- Revises existing language in WAC 220-660-370 to require HPA applicants to use the least impacting technically feasible bank protection alternatives for

² Personal and email communication with representatives of county and municipal planning departments conducted in July and August 2022.

³ Email communication with WDFW staff on September 7, 2022.

*replacement or rehabilitation of residential bank protection projects, and specifies preferences for available alternatives;*⁴

- Specifies the reporting elements that must be included in an HPA application for residential replacement projects (outlined in Section 1.2.1 of this SBEIS); and
- Requires that HPA permit applicants for replacement or rehabilitation of residential bank protection provide a site assessment, alternatives analysis and design rationale for the proposed method *that is prepared by a qualified professional.*⁵

As previously described, RCW 77.55.231 constitutes a pre-existing requirement regarding replacement of residential shoreline stabilizations; that is, the requirements of RCW 77.55.231 are part of the baseline of this analysis. Thus, any costs resulting from the requirements specified in RCW 77.55.231, which include the requirement that any person wishing to replace residential marine shoreline stabilization “use the least impacting technically feasible bank protection alternative for the protection of fish life” and “must conduct a site assessment to consider the least impactful alternatives...and should propose a hard armor technique only after considering site characteristics such as the threat to major improvements, wave energy, and other factors in an analysis of alternatives”, are baseline costs of compliance with these pre-existing requirements. The focus of this analysis is on the incremental costs of the proposed rule that are above and beyond the baseline costs.

The proposed rule is focused specifically on replacement or rehabilitation projects for protecting residential shoreline properties. Accordingly, the rule proposal applies only to residential property shoreline owners with existing shoreline stabilization in place. The new requirement specified in the proposed rule is that, when existing stabilization requires replacement or rehabilitation, the permit applicants must hire a qualified professional to complete the site assessment and alternatives analysis. Importantly, the requirement to conduct a site assessment and alternatives analysis is a baseline requirement for these sites; however, RCW 77.55.231 does not specify the need to rely on a qualified professional for the analysis and reporting. Thus, the requirement in the proposed rule to employ a qualified professional may generate incremental compliance costs.

⁴ WAC 220-660-370(3)(b) provides common alternatives for (1) new bank protection and (2) replacement or rehabilitation of bank protection that extends waterward of an existing bank protection structure projects. The proposed rule would modify WAC 220-660-370 to include common alternatives for replacement or rehabilitation of residential bank protection projects, adapted from RCW Section 77.55.231.

⁵ Per WAC 220-660-030, a “qualified professional” is a scientist, engineer, or technologist specializing in a relevant applied science or technology. This person may be certified with an appropriate professional organization, or could be someone who, through demonstrated education, experience, accreditation, and knowledge relevant to the particular matter, may be reasonably relied on to provide advice within that person’s area of expertise.

POTENTIALLY AFFECTED BUSINESSES

Absent detailed data on businesses that own residential properties along marine shorelines of Washington, we rely upon the best available information regarding the potential extent of businesses affected by the rule. We begin by describing the extent of shoreline properties that may be affected by the proposed rule, and then describe the universe of businesses that could incur costs as a result of the rule.

Owners of marine shoreline property in Washington, whether individuals or businesses, are only affected by the proposed rule under the following circumstances:

- The property is identified as residential;
- The property already has existing shoreline stabilization in place; and
- Existing requirements with respect to the local jurisdictions' SMPs do not already require the use of a qualified professional to develop the requisite site assessment and alternatives analysis.

Available data suggest 66 percent of Washington's marine shoreline parcels (63,733 tax parcels) are affirmatively identified as residential tax parcels, most of which are single family residential.^{6,7,8} Exhibit ES-1 identifies the tax parcels along the marine shoreline identified as residential. For residential property owners, costs are only incurred when and if there is shoreline stabilization on their property that needs to be repaired or replaced. Of the 63,733 residential tax parcels along the Washington's marine shorelines, 38,872 (61 percent) may be modified by some type of anthropogenic intervention.^{9,10}

Finally, even in cases where residential property has existing shoreline stabilization that may require replacement, a substantial portion of Washington's marine shoreline is already subject to the requirements that are being clarified in the proposed rule (i.e., the requirement for use of a qualified professional to develop the site assessment and alternatives analysis). Specifically, five counties and 13 municipalities specifically require that a qualified professional be used to develop the requisite analyses. Exhibit ES-

⁶ For this analysis, we define the marine shoreline as the extent of Washington's shoreline identified by WDFW as including marine tax parcels. This covers the coastlines of Puget Sound, the Strait of Juan de Fuca, the Pacific Coast, and major coastal estuaries. The Marine Parcel dataset includes parcel polygon data with county, city (if available), land use (if available) and owner data as specified by the county assessor, limited to parcels WDFW has identified as being located on marine shorelines.

⁷ Private geospatial data identifying existing marine shoreline parcels provided via secure server to IEC by WDFW on May 23, 2022. Residential parcels are identified using the property type code included in the data. Of the parcels within the area of focus, 4 percent do not include a property type code, and may also be residential.

⁸ For this analysis, residential parcels are identified by land use zoning code. However, WDFW does not administer the Hydraulic Code based on these designations. Rather, permitting decisions are made based on actual land use, which may not always align with the parcel's assigned land use zoning code.

⁹ Publicly accessible geospatial data from the Washington State Shorezone Inventory. Developed by the Nearshore Habitat Program between 1994 and 2000. Downloaded July 2022. Available at: <https://www.dnr.wa.gov/programs-and-services/aquatics/aquatic-science/nearshore-habitat-inventory>.

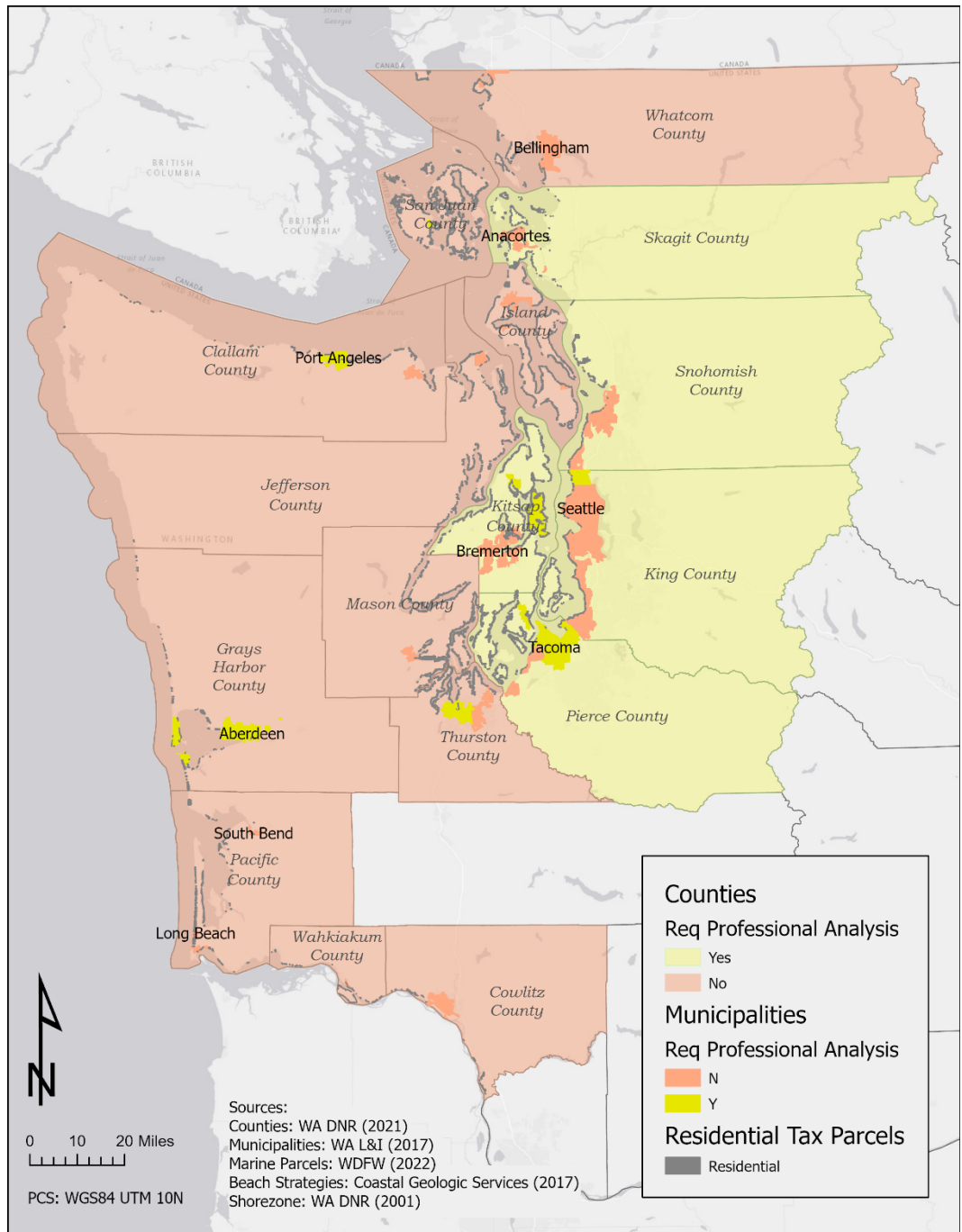
¹⁰ Publicly accessible geospatial data from the Beach Strategies Geodatabase (2017), Coastal Geologic Services, Available at: <https://fortress.wa.gov/dfw/public/PublicDownload/Habitat/BeachStrategies>.

1 displays those counties and municipalities where the requirement to employ a qualified professional to complete the requisite reports is already in place. Residential property owners located in these jurisdictions are not expected to incur costs due to the rule.

While 11 counties and 30 municipalities do not specify this requirement, interviews with county and municipal planners conducted in July and August 2022 suggest that it would be impossible or very challenging for an individual without the relevant professional background to fulfill the necessary requirements. It is also WDFW's experience that property owners often employ a qualified professional to develop requisite reports even absent a requirement to do so.¹¹ Therefore, residential applicants looking to replace their shoreline stabilization in the counties where SMPs do not describe that a qualified professional must be hired for the analyses are still likely to hire qualified professionals for this purpose. Residential property owners (potentially including small businesses) within these jurisdictions needing to repair or rehabilitate shoreline stabilization are unlikely to, but could potentially, incur costs as a result of the rule.

¹¹ Email communication with WDFW on September 7, 2022.

EXHIBIT ES-1. RESIDENTIAL MARINE SHORELINE TAX PARCELS AND EXISTING REQUIREMENTS FOR USE OF QUALIFIED PROFESSIONAL FOR SITE ASSESSMENT AND ALTERNATIVES ANALYSIS BASED ON COUNTY AND MUNICIPAL SMPS



Costs of residential shoreline stabilization projects are generally borne by the property owners, which are frequently residents (i.e., households) and not businesses. In some cases, however, businesses may own residential properties or otherwise bear costs for replacing or rehabilitating residential shoreline stabilizations. Specifically, businesses that may incur costs as a result of the proposed rule may include those within the following North American Industry Classification System (NAICS) codes defining economic sectors:

- 813990 - *Business, Professional, Labor, Political, and Similar Organizations/Other Similar Organizations* (except Business, Professional, Labor, and Political Organizations): Includes (but is not limited to) property owners associations, condominium and homeowners' associations, and tenants' associations.¹²
- 531110 – *Lessors of Residential Buildings and Dwellings*

Additionally, businesses that are run out of an individual's residence may be affected by the rule. There are a wide range of business types that may fit this description and data are not available identifying the numbers and types of businesses associated with residential shoreline properties.

As described previously, most residential property owners with existing shoreline stabilization are likely already using qualified professionals to develop site assessments and alternatives analyses and are unlikely to incur costs as a result of the proposed rule. Nonetheless, there is some potential that individual property owners outside of areas where qualified professionals are required may incur the costs of utilizing a professional as a result of the proposed rule, and these property owners may include businesses.

Data limitations preclude the specific identification of businesses that have the potential to incur costs as a result of the rule. Within the counties with marine shorelines, including those where use of a qualified professional for site assessment and alternatives analysis is explicitly already required, there are 12,400 businesses representing NAICS 813990 (organizations including homeowners' association) and 4,589 representing NAICS 531110 (lessors of residential properties).¹³ Of this universe of businesses in counties with marine shorelines, over 99 percent of those businesses are small (i.e., employ fewer than 50 people). Importantly, these businesses may be located anywhere within the county, are not specifically located on the marine shoreline, and are not specifically located on residential property. Data on home-based businesses are not available. This

¹² Homeowners' associations, tenants' associations, and property owners' associations would only be considered businesses to the extent they are incorporated. RCW 64.38.010 (Definitions) defines HOAs as a "corporation, *unincorporated association*, or other legal entity, each member of which is an owner of residential real property located within the association's jurisdiction, as described in the governing documents, and by virtue of membership or ownership of property is obligated to pay real property taxes, insurance premiums, maintenance costs, or for improvement of real property other than that which is owned by the member." The inclusion of "unincorporated association" within the definition suggests that not all HOAs are considered businesses in Washington.

¹³ Business records for businesses within each identified NAICS code within Washington counties with marine shorelines obtained from the D&B Hoovers database on August 2, 2022, <https://www.dnb.com/products/marketing-sales/dnb-hoovers.html>.

analysis conservatively assumes that all home-based businesses employ fewer than 50 individuals and are small.

“Minor cost” is defined in RCW 19.85.020 as, “a cost per business that is less than 0.3 percent of annual revenue or income or one hundred dollars, whichever is greater, or one percent of annual payroll.” Data limitations prevent identification of the average annual revenues for the potentially affected businesses. As such, this analysis conservatively assumes a minor cost threshold of \$100, which is more likely to underestimate than overestimate the minor cost threshold for a given business.

COST OF COMPLIANCE

The proposed rule would only generate additional costs to residential shoreline property owners, including businesses, if, absent the rule, they would comply with existing requirements without the use of a qualified professional (e.g., by having a construction firm submit a report to document slope instability). Most residential property owners with existing shoreline stabilization are likely already using qualified professionals to develop site assessments and alternatives analyses and are unlikely to incur costs as a result of the proposed rule. To the extent that a residential shoreline property owner’s use of a qualified professional results specifically from the proposed rule, this analysis identifies the costs associated with having a qualified professional complete this report.

The cost of employing a qualified professional to complete the site assessment and alternatives analysis ranges from \$3,000 to \$10,000.¹⁴ This range of costs represents estimates from industry representative interviews and email communications. This range of costs is relevant to multiple project types (new armoring structure project, rehabilitation or replacement shoreline stabilization project), proposed armoring types (e.g., hard armoring, hybrid armoring, soft-shore armoring), number of considered alternatives, and residential property shoreline length. This is because the base level of geotechnical analysis and reporting is unchanged across these metrics. For the same reasons, costs are also similar whether a residential applicant is applying for a general HPA permit or an emergency or expedited permit.¹⁵ The range of costs is also unlikely to differ between residential property owners who operate their property as a business and property owners who simply reside within their property.

SUMMARY FINDINGS

Owners of marine shoreline property in Washington, whether individuals or businesses, are only affected by the proposed rule where the property is identified as residential, the property already has existing shoreline stabilization in place, and existing requirements

¹⁴ Before RCW 77.55.231 was codified, permit applicants for residential rehabilitation and replacement bank protection projects in select areas spent as low as \$1,000 to provide proof of slope instability to necessitate the proposed work. However, since RCW 77.55.231 changed the reporting requirements for these applicants, we assume that the costs to prepare these deliverables are on average no lower than \$3,000.

¹⁵ Personal and email communication with representatives of firms providing shoreline stabilization-related services conducted in July 2022.

with respect to the local jurisdictions' SMPs do not already require the use of a qualified professional to develop the requisite site assessment and alternatives analysis. Even where local SMPs do not explicitly clarify the need for a qualified professional to undertake the requisite analyses, most are still likely to hire qualified professionals for this purpose. As such, the proposed rule is unlikely to result in additional costs to residential property owners. In the likely limited instances where the rule may result in incremental costs to residential property owners, those costs may be borne by small businesses that are operating on residential properties. Available data do not allow for a specific identification of the number of small businesses operating on marine shoreline residential properties that may experience costs as a result of the rule, or the extent to which those businesses are small, though employment data for businesses potentially operating on residential parcels within the affected counties suggest 99 percent of these businesses are small. It is unlikely that residential property owners, including small businesses, will incur costs as a result of this rule. However, to the extent that businesses do incur these costs, the costs would be borne disproportionately by small businesses, and are likely to be more than minor.

CHAPTER 1 | INTRODUCTION

This report evaluates the potential costs to businesses of compliance with a Washington State Department of Fish and Wildlife (WDFW) proposed rule that updates Washington State’s Hydraulic Code to clarify how residential shoreline property owners should comply with recent legislation regarding residential marine shoreline stabilization.¹⁶ This Small Business Economic Impact Statement (SBEIS) was developed in accordance with the Regulatory Fairness Act (RFA), Revised Code of Washington (RCW) Section 19.85 to determine whether the proposed rule would result in more than minor and disproportionate cost impacts on small businesses. The primary sources of information for this analysis include the following:

- Information gathered through outreach to county and municipal planners, businesses providing the services required by the proposed rule, and residential property owners who have experience with marine shoreline stabilization replacement;
- County and municipal Shoreline Master Program (SMP) documents;
- Tax parcel data identifying land use types along marine shorelines;
- Data identifying location of existing shoreline stabilization along the marine shoreline; and
- Historic Hydraulic Project Approval (HPA) permit data provided by WDFW.

1.1 NEED FOR THE RULE

In 2021, the Washington State Legislature passed Substitute Senate Bill (SSB) 5273. This bill requires that anyone desiring to replace residential marine shoreline stabilization must use the least impacting, technically feasible bank protection alternative for the protection of fish life. This requirement is codified in RCW 77.55.231 and applies to the issuance of Hydraulic Project Approval (HPA) permits. The requirement must be met by conducting a site assessment and alternatives analysis report before proposing a hard armoring technique.

WDFW is developing the proposed rule to update the state’s Hydraulic Code rules (Chapter 220-660 Washington Administrative Code [WAC]) to be consistent with RCW

¹⁶ This report uses the term “shoreline stabilization” to refer broadly to the various shoreline interventions that are used to prevent or reduce erosion of the shoreline and protect upland property and structures, including passive or nature-based techniques, soft shore techniques, and hard structures such as bulkheads.

77.55.231. To implement the new statute, WDFW’s objectives for this rule proposal include:

1. Specify that replacement of residential marine shoreline stabilization must utilize the least impacting, technically feasible alternative for the protection of fish life;
2. Identify alternatives for shoreline stabilization from most to least preferred;
3. Specify that a site assessment and alternatives analysis report prepared by a qualified professional is required as part of an application for an HPA permit for this type of project;
4. Identify mandatory report elements; and
5. Elaborate on the report requirement for emergency and expedited permit applications.

Although not specified in SSB 5273, WDFW’s proposed rule will clarify that the requisite site assessment and alternatives analysis report needs to be developed by a qualified professional. Reports must be prepared by a qualified professional to ensure that they are science-based, complete, and draw accurate conclusions. Qualified professionals are able to provide independent, expert analysis. Absent the proposed rule requirement to employ qualified professionals to develop the analyses and report, WDFW may need to reject poorly or incorrectly prepared reports, causing delays in the permitting process and potentially adding cost to the project. WDFW may also deny permits for proposals that are not the least impacting technically feasible option. Using a qualified professional provides HPA applicants with certainty that they have met regulatory requirements for analysis and reporting. A report prepared by a qualified professional will inform subsequent project design, increasing the likelihood that the final proposal is permissible. This requirement is consistent with existing rule in WAC 220-660-370 relative to *new* residential shoreline stabilization projects.

1.2 REQUIREMENTS FOR DEVELOPING AN SBEIS

19.85 RCW requires that the relevant agency prepare an SBEIS if the proposed rule “will impose more than minor costs on businesses in an industry.”¹⁷ “Minor cost” is defined in RCW 19.85.020 as a cost per business that is less than 0.3 percent of annual revenue or income, or \$100, whichever is greater, or one percent of annual payroll.¹⁸ The guidelines for preparing an SBEIS are included in RCW 19.85.040.¹⁹ This analysis also utilizes the more specific guidance and resources provided by Washington State’s Office for

¹⁷ RCW 19.85.030 Agency Rules - Small Business economic impact statement reduction of costs imposed by rule. Accessed September 20, 2021 at: <https://app.leg.wa.gov/RCW/default.aspx?cite=19.85.030>.

¹⁸ RCW 19.85.020 Definitions. Accessed September 20, 2021 at: <https://app.leg.wa.gov/rcw/default.aspx?cite=19.85.020>.

¹⁹ RCW 19.85.040 Small business economic impact statement—Purpose—Contents. Accessed September 20, 2021 at: <https://app.leg.wa.gov/RCW/default.aspx?cite=19.85.040>.

Regulatory Innovation and Assistance (ORIA).²⁰ Per the SBEIS *Frequently Asked Questions* guidance, agencies are required to consider “costs imposed on businesses and costs associated with compliance with the proposed rules.”²¹ Agencies are not required under 19.85 RCW to consider indirect costs not associated with compliance with the rule.

1.3 SUMMARY OF THE PROPOSED RULE

WDFW is proposing changes to WAC 220-660-370 regarding bank protection in saltwater areas. These changes address a 2021 requirement in RCW 77.55.231, which states that anyone desiring to replace residential marine shoreline stabilization must use the least impacting, technically feasible bank protection alternative for the protection of fish life, proven through the completion of a site assessment and alternatives analysis. The proposed rule will clarify the requirement that residential property owners applying for a Hydraulic Project Approval (HPA) permit complete a site assessment and alternatives analysis, and specify the need for a qualified professional to develop the analysis and reporting, for residential shoreline rehabilitation or replacement stabilization projects. This section summarizes the relevant existing regulations and practices for residential property owners submitting HPA permit applications for shoreline stabilization projects, identifies how they would change under the proposed rule, and describes how the change may result in costs to affected businesses.

1.3.1 EXISTING REGULATIONS AND POLICIES

This section describes the existing state and local regulations and policies that guide the placement of shoreline stabilization on Washington’s marine shorelines, which forms the baseline for this analysis.

Hydraulic Code Rules

The current language of the WAC for bank protection in saltwater areas requires HPA permit applicants for either a *new* residential bank protection or the *replacement or rehabilitation of residential bank protection that extends waterward of an existing bank protection structure* (“waterward replacement”) to use the least impacting technically feasible bank protection alternative.²² These requirements do not currently apply to replacement or rehabilitation of residential bank protection that *does not* extend waterward of an existing structure. The section stipulates that HPA applicants should propose a hard armoring technique only after considering relevant site characteristics and other factors in an alternatives analysis.

²⁰ ORIA. 2021. Regulatory Fairness Act Support. Accessed July 31, 2022 at: https://www.oria.wa.gov/site/alias__oria/934/regulatory-fairness-act-support.aspx.

²¹ WA Attorney General Office. 2021. Small Business Economic Impact Statements - Frequently Asked Questions. Accessed July 31, 2022 at: https://www.oria.wa.gov/Portals/_oria/VersionedDocuments/RFA/Regulatory_Fairness_Act/DRAFT_SBEIS_FAQ.pdf.

²² The WAC defines “feasible” as available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

In addition, HPA applicants for *new* or *waterward replacement* of existing bank protection structures are required to submit a site assessment and design rationale for the proposed method. These deliverables, in conjunction with the alternatives analysis, must be prepared by a qualified professional.²³ This “qualified professionals report” must be provided as part of the complete HPA application, which should include the following:

- An assessment of the level of risk to existing buildings, roads, or services being threatened by the erosion;
- Evidence of erosion and/or slope instability to warrant the stabilization work;
- Alternatives considered and the technical rationale specific to the bank protection technique proposed;
- An analysis of the benefits and impacts associated with the chosen protection method; and
- An explanation of the method chosen, design parameters, types of materials, quantities, staging, and site rehabilitation.

These requirements apply across all land use zones for the applicable project types (i.e., new shoreline bank protection or waterward replacements of existing protection). However, these WAC requirements *do not* apply to HPA permit applicants that wish to *replace* existing marine residential shoreline stabilization.

Property owners also have the option of applying for an emergency or expedited permit per requirements stipulated in RCW 77.55.021(12), RCW 77.55.021(14), and RCW 77.55.021(16). Per RCW 77.55.021(14), if WDFW determines that an imminent danger exists, they can issue an expedited written permit for work to remove any obstructions, repair existing structures, restore banks, or protect property. Per RCW 77.55.021(16), WDFW may also issue an expedited written permit in those instances where normal permit processing would result in significant hardship for the applicant or unacceptable damage to the environment. Expedited permit requests require a complete written application as required in RCW 77.55.021(2), which should include the following:

- General plans for the overall project;
- Complete plans and specifications of the proposed construction or work within the mean higher high water line in salt water or within the ordinary high water line in fresh water;
- Complete plans and specifications for the proper protection of fish life;
- Notice of compliance with any applicable requirements of the state environmental policy act, unless otherwise provided for in this chapter; and

²³ Per WAC 220-660-030, a “qualified professional” is a scientist, engineer, or technologist specializing in a relevant applied science or technology. This person may be certified with an appropriate professional organization, or could be someone who, through demonstrated education, experience, accreditation, and knowledge relevant to the particular matter, may be reasonably relied on to provide advice within that person’s area of expertise.

- In the event that any person or government agency desires to undertake mineral prospecting or mining using motorized or gravity siphon equipment or desires to discharge effluent from such an activity to waters of the state, the person or government agency must also provide proof of compliance with the requirements of the federal clean water act issued by the department of ecology.

WAC 220-660-030 requires a qualified professional's report for all new bank protection projects, whether the new shoreline stabilization project applicants are applying for a general HPA, expedited, or emergency permit, unless WDFW grants an exemption depending on the scale and nature of the project.

In 2021, Washington Legislature (via Substitute Senate Bill [SSB] 5273) passed a requirement (codified in RCW 77.55.231) that anyone desiring to *replace* residential marine shoreline stabilization must use the least impacting technically feasible bank protection alternative for the protection of fish life. Further, unless WDFW provides an exemption based on the scale and nature of the project, a property owner that desires to replace residential marine shoreline stabilization must complete a site assessment and alternatives assessment to consider the least impacting alternatives before proposing a hard armoring technique. The RCW does not specify that these analyses and report be completed by a "qualified professional."

Shoreline Management Act/Shoreline Master Program Requirements

The Shoreline Management Act (SMA) (Chapter 90.58 RCW) establishes partnerships between state and local governments for "managing, accessing, and protecting Washington's shorelines."²⁴ The SMA requires local governments within shoreline areas in the state of Washington to develop SMPs within their jurisdictions. The statewide rules that translate the broad policies of the SMA into guidance for the development of local SMPs are found in the state's Shoreline Master Program Guidelines (Chapter 173-26 WAC). To ensure that county and municipal governments are complying with changing state standards for SMPs during review periods, the Act requires that local governments amend their SMPs at least once every eight years. Local SMPs must at minimum address specific topics of statewide significance and may elect to go above and beyond statewide requirements to regulate the shoreline within their local jurisdiction.

With respect to shoreline modifications, including shoreline stabilization, for new structures, the SMP Guidelines require geotechnical reports that address the need for the modification, risk, and rate of erosion, and justification for hard armoring where it is being proposed. The SMP Guidelines do not specify that geotechnical reports must be developed by a qualified professional. The SMP Guidelines do not specify the need for a geotechnical report with respect to replacement stabilization. Of note, regardless of whether a local jurisdiction's SMP explicitly states the need for site assessment and

²⁴ Washington Department of Ecology. 2022. Shoreline Management Act (SMA). Viewed at <https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-laws-rules-and-cases#:~:text=The%20state%20Shoreline%20Management%20Act,shoreline%20use%20in%20their%20jurisdictions>, July 29, 2022.

alternatives analysis, permittees in those jurisdictions are still subject to those requirements based on RCW 77.55.231.

1.3.2 USE OF QUALIFIED PROFESSIONAL TO DEVELOP SITE ASSESMENT AND ALTERNATIVES ANALYSIS

As outlined above, WAC 220-660-370 requires that for *new* shoreline stabilization, a qualified professional must address a suite of requirements including a risk assessment, evidence of erosion, alternatives for bank protection techniques, and the benefits and impacts of the selected technique. The WAC does not currently include the same requirements for residential property owners who wish to *replace or rehabilitate* existing shoreline stabilization. However, these requirements are already in place for residential shoreline stabilization replacements in some counties and municipalities through their local SMPs.

Exhibit 1-1 below describes each county's reporting requirements for replacing residential shoreline stabilization according to their respective SMPs. For each county, Exhibit 1-1 highlights whether requisite analyses are to be undertaken by a qualified professional according to the text of the local SMP.²⁵ While SMPs are separate from HPA requirements, some SMPs specify overlapping requirements regarding replacement of shoreline stabilizations, and therefore provide insight regarding the expected behaviors of permittees absent this rule proposal.

Interviews with shoreline planners from selected counties and the SMPs of each county informed this analysis. Several county and municipal shoreline planners stated in interviews that even if their SMPs did not explicitly clarify the need for a qualified professional to undertake the analyses, it would be impossible or very challenging for an individual without the relevant professional background to fulfill the necessary requirements. Therefore, residential applicants looking to replace their shoreline stabilization in the counties where SMPs do not describe that a qualified professional must be hired for the analyses are still likely to hire qualified professionals for this purpose.

Of the 16 counties with marine shorelines, five explicitly state the requirement for use of a qualified professional in developing site assessment and alternatives analysis reports. Four do not specify the need for a qualified professional to develop the requisite analyses, and although seven do not currently describe a requirement for geotechnical reports of any kind for applicants replacing residential shoreline stabilization, those residents are required to develop these reports by RCW 77.55.231 when applying for an HPA permit. In both cases, as described previously, it is likely that qualified professionals are being used to fulfill those requirements.

²⁵ Again, even where an SMP suggests that a site assessment and alternatives analysis is not required, individuals in those jurisdictions are in fact subject to those requirements based on RCW 77.55.231.

EXHIBIT 1-1. COUNTY SMP REQUIREMENTS FOR RESIDENTIAL REPLACEMENT SHORELINE
STABILIZATION

COUNTY NAME	ANALYSES TO BE COMPLETED BY QUALIFIED PROFESSIONAL? ¹	SOURCE
Clallam	Need for a qualified professional not specified	Clallam County Shoreline Master Program
Cowlitz	No requirement for site assessment and alternatives analysis specified	Cowlitz County Shoreline Master Program
Grays Harbor	No requirement for site assessment and alternatives analysis specified	Interview with county shoreline planner; Grays Harbor County Shoreline Master Program
Island	Need for a qualified professional not specified	Interview with county shoreline planner; Island County Shoreline Master Program
Jefferson	No requirement for site assessment and alternatives analysis specified	Interview with county shoreline planner; Jefferson County Shoreline Master Program
King	Yes	Interview with county shoreline planner; King County Shoreline Master Program
Kitsap	Yes	Interview with county shoreline planner; Kitsap County Shoreline Master Program
Mason	No requirement for site assessment and alternatives analysis specified	Interview with county shoreline planner; Mason County Shoreline Master Program
Pacific	No requirement for site assessment and alternatives analysis specified	Pacific County Shoreline Master Program
Pierce	Yes	Interview with county shoreline planner; Pierce County Shoreline Master Program
San Juan	Need for a qualified professional not specified	San Juan County Shoreline Master Program
Skagit	Yes	Skagit County Shoreline Master Program
Snohomish	Yes	Interview with county shoreline planner; Snohomish County Shoreline Master Program
Thurston	No requirement for site assessment and alternatives analysis specified	Interview with county shoreline planner; Thurston County Shoreline Master Program
Wahkiakum	No requirement for site assessment and alternatives analysis specified	Wahkiakum County Shoreline Master Program

COUNTY NAME	ANALYSES TO BE COMPLETED BY QUALIFIED PROFESSIONAL? ¹	SOURCE
Whatcom	Need for a qualified professional not specified	Whatcom County Shoreline Master Program
Notes: 1. Where SMPs do not explicitly specify use of a certified professional, per IEC's interviews with selected counties it is unlikely that a residential property owner would be able to complete a compliant geotechnical report without the support of the appropriate qualified professional. Therefore, the instances where it is "not specified" whether a professional is required, applicants are likely to hire a qualified professional to fulfill the geotechnical analysis requirement. Sources: Shoreline Master Programs for each county. Interviews with Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pierce, Snohomish, and Thurston Counties conducted from July through August 2022.		

Exhibit 1-2 displays the same information as Exhibit 1-1 at the municipal level. This analysis includes all municipalities identified in the marine tax parcel data. Of the 43 municipalities that meet these criteria, 13 specifically state a requirement that a qualified professional develop the requisite reports for replacement residential shoreline stabilization structures. Two municipalities—Anacortes and Seattle—do not specify that a qualified professional must provide the reports, but as described above, it is likely residents are nonetheless hiring qualified professionals to fulfill these requirements. For the remainder, although the SMP does not specify the need for an alternatives analysis and site assessment, individuals in those jurisdictions must do so because of the requirements of RCW 77.55.231 and, for the same reason previously described, are most likely to be using qualified professionals to fulfill those requirements.

EXHIBIT 1-2. MUNICIPAL REQUIREMENTS FOR RESIDENTIAL REPLACEMENT SHORELINE STABILIZATION OR ARMOROING

MUNICIPALITY NAME ¹	ANALYSES TO BE COMPLETED BY QUALIFIED PROFESSIONAL? ²	SOURCE
Aberdeen	Yes	Aberdeen Shoreline Master Program
Anacortes	Need for qualified professional not specified	Interview with municipal planner; Anacortes Shoreline Master Program
Bainbridge Island	Yes	Interview with municipal planner; Bainbridge Island Shoreline Master Program
Bellingham	No requirement for site assessment and alternatives analysis specified	Bellingham Shoreline Master Program
Blaine	No requirement for site assessment and alternatives analysis specified	Blaine Shoreline Master Program

MUNICIPALITY NAME ¹	ANALYSES TO BE COMPLETED BY QUALIFIED PROFESSIONAL? ²	SOURCE
Bremerton	No requirement for site assessment and alternatives analysis specified	Bremerton Shoreline Master Program
Burien	No requirement for site assessment and alternatives analysis specified	Burien Shoreline Master Program
Cathlamet	No requirement for site assessment and alternatives analysis specified	Cathlamet Shoreline Master Program
Coupeville	No requirement for site assessment and alternatives analysis specified	Coupeville Shoreline Master Program
Des Moines	No requirement for site assessment and alternatives analysis specified	Des Moines Shoreline Master Program
DuPont	No requirement for site assessment and alternatives analysis specified	DuPont Shoreline Master Program
Edmonds	No requirement for site assessment and alternatives analysis specified	Edmonds Shoreline Master Program
Everett	No requirement for site assessment and alternatives analysis specified	Everett Shoreline Master Program
Federal Way	No requirement for site assessment and alternatives analysis specified	Federal Way Shoreline Master Program
Friday Harbor	Yes	Friday Harbor Shoreline Master Program
Gig Harbor ³	Yes	Interview with municipal planner; Gig Harbor Shoreline Master Program
Hoquiam	Yes	Hoquiam Shoreline Master Program
Ilwaco	No requirement for site assessment and alternatives analysis specified	Ilwaco Shoreline Master Program
La Conner	No requirement for site assessment and alternatives analysis specified	La Conner Shoreline Master Program
Lacey	No requirement for site assessment and alternatives analysis specified	Lacey Shoreline Master Program
Langley	No requirement for site assessment and alternatives analysis specified	Langley Shoreline Master Program
Longview	No requirement for site assessment and alternatives analysis specified	Longview Shoreline Master Program
Long Beach	No requirement for site assessment and alternatives analysis specified	Long Beach Shoreline Master Program

MUNICIPALITY NAME ¹	ANALYSES TO BE COMPLETED BY QUALIFIED PROFESSIONAL? ²	SOURCE
Mukilteo	No requirement for site assessment and alternatives analysis specified	Mukilteo Shoreline Master Program
Normandy Park	No requirement for site assessment and alternatives analysis specified	Normandy Park Shoreline Master Program
Oak Harbor	No requirement for site assessment and alternatives analysis specified	Oak Harbor Shoreline Master Program
Ocean Shores	Yes	Ocean Shores Shoreline Master Program
Olympia ⁴	Yes	Interview with municipal planner; Olympia Shoreline Master Program
Port Angeles	Yes	Port Angeles Shoreline Master Program
Port Orchard	No requirement for site assessment and alternatives analysis specified	Port Orchard Shoreline Master Program
Port Townsend	No requirement for site assessment and alternatives analysis specified	Port Townsend Shoreline Master Program
Poulsbo	Yes	Poulsbo Shoreline Master Program
Ruston	Yes	Ruston Shoreline Master Program
Seattle	Need for qualified professional not specified	Seattle Shoreline Master Program
Sequim	No requirement for site assessment and alternatives analysis specified	Sequim Shoreline Master Program
Shelton	No requirement for site assessment and alternatives analysis specified	Shelton Shoreline Master Program
Shoreline	Yes	Shoreline Shoreline Master Program
South Bend	No requirement for site assessment and alternatives analysis specified	South Bend Shoreline Master Program
Steilacoom	No requirement for site assessment and alternatives analysis specified	Steilacoom Shoreline Master Program
Tacoma	Yes	Tacoma Shoreline Master Program
University Place	No requirement for site assessment and alternatives analysis specified	University Place Shoreline Master Program
Westport	Yes	Westport Shoreline Master Program
Woodway	No requirement for site assessment and alternatives analysis specified	Woodway Shoreline Master Program
Notes: 1. Municipalities with marine tax parcels within municipal boundaries. Marine tax parcels identified using private geospatial data identifying existing marine shoreline parcels provided via secure server to IEc by WDFW on May 23, 2022. Municipalities were specified by identifying marine tax parcels falling within municipal boundaries from publicly available geospatial data from the Washington Department of Natural Resources (WA DNR) (2021).		

MUNICIPALITY NAME ¹	ANALYSES TO BE COMPLETED BY QUALIFIED PROFESSIONAL? ²	SOURCE
<p>2. Some SMPs do specify that a qualified professional is required for shoreline stabilization analyses and report but that these reporting requirements are not relevant for replacement structures. Of note, where SMPs do not explicitly specify use of a certified professional, per IEc's interviews with selected counties it is unlikely that a residential property owner would be able to complete a compliant geotechnical report without the support of the appropriate qualified professional. Therefore, the instances where it is "not specified" whether a professional is required, applicants are likely to hire a qualified professional to fulfill the geotechnical analysis requirement.</p> <p>3. Interviewee described that although the requirements are not specified in the SMP in detail, they are being implemented in practice.</p> <p>4. Municipal SMP requires that a qualified professional conduct most, but not all of those analyses.</p> <p>Sources: Shoreline Master Programs for each municipality. Interviews with representatives from Olympia, Gig Harbor, Bainbridge Island, and Anacortes conducted from in July 2022.</p>		

1.3.3 PROPOSED RULE PROVISIONS

The proposed rule would update WAC 220-660-370 to be consistent with the existing RCW 77.55.231 requirement for HPA permit applicants for residential marine shoreline stabilization replacement or rehabilitation projects. Specifically, the proposed rule prescribes the following:

- Revises existing language in WAC 220-660-370 to require HPA applicants to use the least impacting technically feasible bank protection alternatives for *replacement or rehabilitation of residential* bank protection projects, and specifies preferences for available alternatives;²⁶
- Specifies the specific reporting elements that must be included in an HPA application for residential replacement projects (outlined in Section 1.2.1 of this report); and
- Requires that HPA permit applicants for replacement or rehabilitation of residential bank protection provide a site assessment, alternatives analysis and design rationale for the proposed method *that is prepared by a qualified professional*.

As described in Section 1.2.1, revisions made to RCW 77.55.231 as a result of SSB 5273 have already put into place the requirement to employ the least impacting technically feasible stabilization technique, and requirements for a site assessment and alternatives analysis with respect to replacement of residential shoreline stabilization. Costs incurred due to these requirements are thus not considered to be incremental to, or a result of, the proposed rule. Thus, the key rule change implemented by the proposed rule is that permit applicants of replacement or rehabilitation of residential bank protection projects must hire a qualified professional to complete the qualified professionals report. Applicants for these project types were not previously required to submit a qualified professionals

²⁶ WAC 220-660-370 provides common alternatives for (1) new bank protection and (2) replacement or rehabilitation of bank protection that extends waterward of an existing bank protection structure projects. The proposed rule would modify WAC 220-660-370 to provide common alternatives for replacement or rehabilitation of residential bank protection projects, adapted from RCW Section 77.55.231.

report, so any incurred costs to meet this updated requirement may be attributable to the proposed rule.

The proposed rule also outlines exemptions to the above requirements. WDFW may grant an exemption to the above described requirements under the following conditions:

- The department may grant an exemption depending on the scale and nature of the project; or
- Projects for the removal of an existing bank protection structure and restoration of the beach are exempted. These projects may include other passive techniques such as controlling upland drainage or planting native vegetation.

Finally, the proposed rule also clarifies the requirements for permit applicants seeking expedited or emergency permits, whether for new or replacement of existing shoreline stabilization), under RCW 77.55.021(12), RCW 77.55.021(14), or RCW 77.55.021(16). These applications should include all deliverables outlined in RCW 77.55.021(2), but a site assessment and alternatives analysis report are not required at the time of application. The proposed rule states that any HPA permit applicant who submits an emergency or expedited application must submit within 90 days from the permit issuance a site assessment and alternatives analysis report, unless WDFW issues an exemption. After review of these deliverables, the HPA permit applicant may be required to replace the structure with one that is truly the least impacting technically feasible alternative.

WAC 220-660-370 currently requires the submission of a site assessment and alternatives analysis report for all new shoreline modification, regardless of the type of application (standard, expedited, or emergency) unless the department provides an exemption depending on the scale and nature of the project. RCW 77.55.231 requires the same for replacement of existing shoreline stabilization. The proposed rule thus does not effectively change the existing requirement for *new* or *replacement* shoreline stabilization expedited or emergency applicants, other than specifying the timeframe within which the requisite report must be submitted.

CHAPTER 2 | SMALL BUSINESS IMPACTS

This chapter evaluates the potential economic impacts of the proposed rule on small businesses in Washington State. As outlined in the RFA and in accordance with other guidance and best practices, this SBEIS addresses the following questions.^{27,28,29}

- What are the industries and universe of businesses that may incur costs as a result of this rule?
- What are the likely costs of the rule to those businesses?
- Are the costs resulting from the rule anticipated to be more than minor?
- Will the rule disproportionately affect small businesses?
- What steps has the agency taken to reduce the costs of the rule on small businesses?
- How has the agency involved small businesses in the development of the rule?
- How many jobs may be created or lost as a result of compliance with the rule?

The sections that follow address each of these questions individually.

2.1 POTENTIALLY AFFECTED SMALL BUSINESSES

The rule has the potential to affect businesses that own residential property on marine shorelines of Washington State and that may need to replace or rehabilitate existing shoreline stabilization. The term “residential” with respect to the hydraulic code is not defined. For purposes of rule implementation, WDFW interprets the term with its common definition of describing a property on which individuals reside.³⁰ WDFW has specified that they will not consider hotel and motel properties to be residential properties with respect to the rule, but other short and long-term residential property rentals will be considered residential and must comply with the rule.

²⁷ RCW 19.85.040 Small business economic impact statement—Purpose—Contents. Accessed July 31, 2022 at: <https://app.leg.wa.gov/RCW/default.aspx?cite=19.85.040>.

²⁸ ORIA. 2021. Regulatory Fairness Act Support. Accessed July 31, 2022 at: https://www.oria.wa.gov/site/alias__oria/934/regulatory-fairness-act-support.aspx.

²⁹ WA Attorney General Office. 2021. Small Business Economic Impact Statements - Frequently Asked Questions. Accessed July 31, 2022 at: https://www.oria.wa.gov/Portals/_oria/VersionedDocuments/RFA/Regulatory_Fairness_Act/DRAFT_SBEIS_FAQ.pdf.

³⁰ Personal communication with WDFW staff on July 27, 2022.

Absent detailed data on businesses that own residential properties along marine shorelines of Washington, we rely upon the best available information regarding the potential extent of businesses affected by the rule. We begin by describing the extent of shoreline properties that may be affected by the proposed rule, and then describe the universe of businesses that could incur costs as a result of the rule.

2.1.1 EXTENT OF AFFECTED SHORELINE PROPERTY

Owners of marine shoreline property in Washington, whether individuals or businesses, are only affected by the proposed rule under the following circumstances:

- The property is identified as residential;
- The property already has existing shoreline stabilization in place; and
- Existing requirements with respect to the local jurisdictions' SMPs do not already require the use of a qualified professional to develop the requisite site assessment and alternatives analysis.

Available data suggest 66 percent of Washington's marine shoreline parcels (63,733 tax parcels) are affirmatively identified as residential tax parcels, most of which are single family residential.^{31,32} Of the 96,957 tax parcels of all types along Washington's marine shoreline, 46,373 (48 percent) are identified as single family residential. Another 12,074 of the parcels (12 percent) are identified as multi-unit residential. Exhibit 2-1 identifies the tax parcels along the marine shoreline identified as residential.³³

For residential property owners, costs are only incurred when and if there is shoreline stabilization on their property that needs to be repaired or replaced. Of the 63,733 residential tax parcels along the Washington's marine shorelines, 38,872 (61 percent) may be modified by some type of anthropogenic intervention.^{34,35}

Finally, even in cases where residential property has existing shoreline stabilization that may require replacement, a substantial portion of Washington's marine shoreline is

³¹ For this analysis, we define the marine shoreline as the extent of Washington's shoreline identified by WDFW as including marine tax parcels. This covers the coastlines of Puget Sound, the Strait of Juan de Fuca, the Pacific Coast, and major coastal estuaries. The Marine Parcel dataset includes parcel polygon data with county, city (if available), land use (if available) and owner data as specified by the county assessor, limited to parcels WDFW has identified as being located on marine shorelines.

³² Private geospatial data identifying existing marine shoreline parcels provided via secure server to IEc by WDFW on May 23, 2022. Residential parcels are identified using the property type code included in the data. Of the parcels within the area of focus, 4 percent do not include a property type code, and may also be residential.

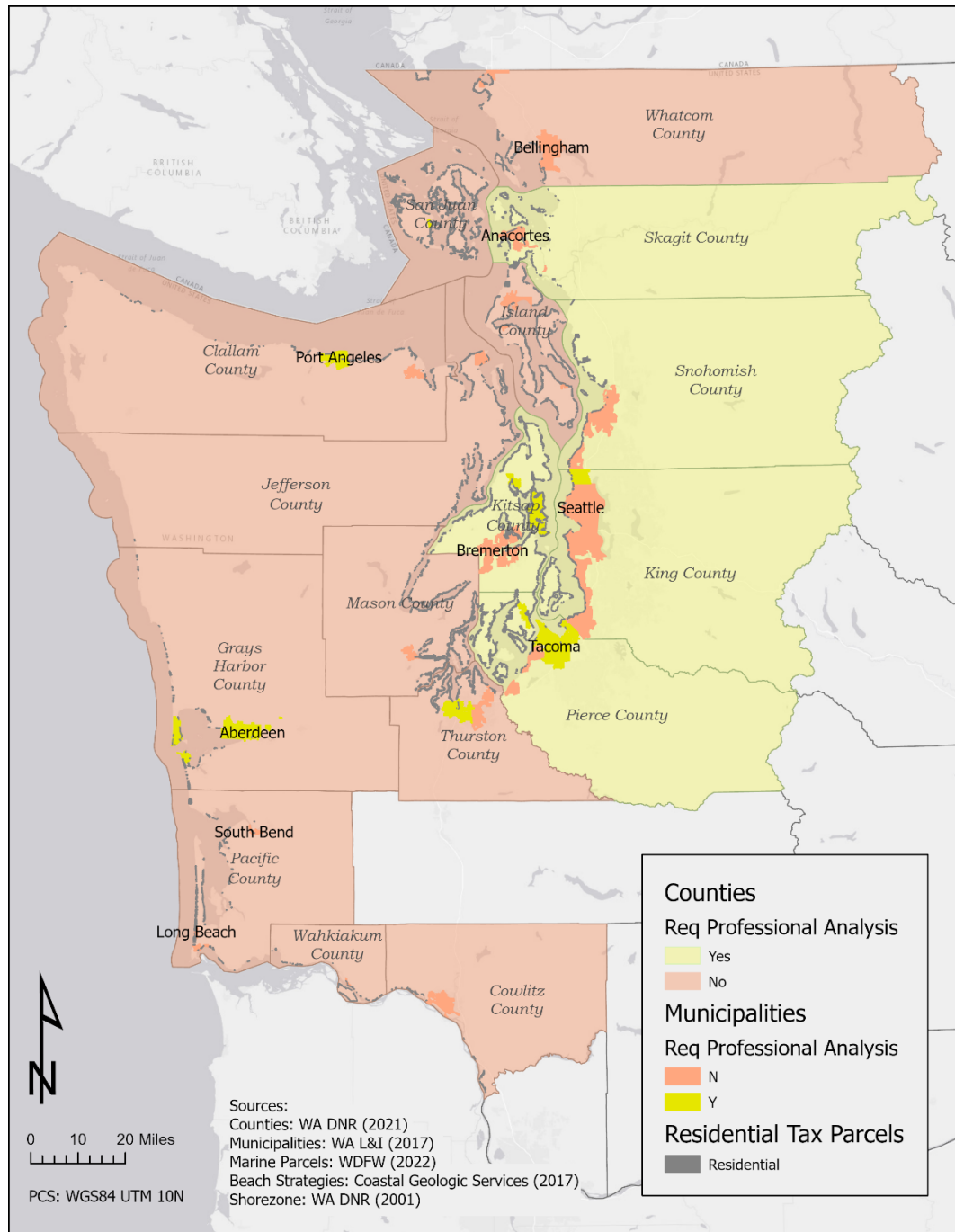
³³ For this analysis, residential parcels are identified by land use zoning code. However, WDFW does not administer the Hydraulic Code based on these designations. Rather, permitting decisions are made based on actual land use, which may not always align with the parcel's assigned land use zoning code.

³⁴ Publicly accessible geospatial data from the Washington State Shorezone Inventory. Developed by the Nearshore Habitat Program between 1994 and 2000. Downloaded July 2022. Available at: <https://www.dnr.wa.gov/programs-and-services/aquatics/aquatic-science/nearshore-habitat-inventory>.

³⁵ Publicly accessible geospatial data from the Beach Strategies Geodatabase (2017), Coastal Geologic Services, Available at: <https://fortress.wa.gov/dfw/public/PublicDownload/Habitat/BeachStrategies>.

already subject to the requirements that are being clarified in the proposed rule (i.e., the requirement for use of a qualified professional to develop the site assessment and alternatives analysis). Specifically, five counties and 13 municipalities specifically require that a qualified professional be used to develop the requisite analyses. Exhibit 2-1 displays those counties and municipalities where the requirement to employ a qualified professional to complete the requisite reports is already in place. Residential property owners located in these jurisdictions are not expected to incur costs due to the rule. While 11 counties and 30 municipalities do not identify this requirement, interviews with county and municipal planners conducted in July and August 2022 suggest that it would be impossible or very challenging for an individual without the relevant professional background to fulfill the necessary requirements. Therefore, residential applicants looking to replace their shoreline stabilization in the counties where SMPs do not describe that a qualified professional must be hired for the analyses are still likely to hire qualified professionals for this purpose. Residential property owners (potentially including small businesses) within these jurisdictions needing to repair or rehabilitate shoreline stabilization are unlikely to, but could potentially, incur costs as a result of the rule.

EXHIBIT 2-1. RESIDENTIAL MARINE SHORELINE TAX PARCELS AND EXISTING REQUIREMENTS FOR USE OF QUALIFIED PROFESSIONAL FOR SITE ASSESSMENT AND ALTERNATIVES ANALYSIS BASED ON COUNTY AND MUNICIPAL SMPS



2.1.2 IDENTIFICATION OF POTENTIALLY AFFECTED BUSINESSES

Costs of residential shoreline stabilization projects are generally borne by the property owners, which are frequently residents (i.e., households) and not businesses. In some cases, however, businesses may own residential properties or otherwise bear costs for replacing or rehabilitating residential shoreline stabilizations. Specifically, businesses that may incur costs as a result of the proposed rule may include those within the following North American Industry Classification System (NAICS) codes defining economic sectors:

- 813990 - *Business, Professional, Labor, Political, and Similar Organizations/Other Similar Organizations (except Business, Professional, Labor, and Political Organizations)*: Includes (but is not limited to) property owners associations, condominium and homeowners' associations, and tenants' associations.³⁶
- 531110 – *Lessors of Residential Buildings and Dwellings*

Additionally, businesses that are run out of an individual's residence may be affected by the rule. There are a wide range of business types that may fit this description and data are not available identifying the numbers and types of businesses associated with residential shoreline properties.

Data limitations do not allow for a specific enumeration and identification of the potentially affected businesses. Specific limitations include:

- NAICS code 813990 (*Other Similar Organizations*) includes a substantially greater universe of businesses than the property owners' associations that are of interest to this analysis;
- Businesses in NAICS code 53110 (*Lessors of Residential Buildings and Dwellings*) do not comprehensively pay Business and Occupation (B&O) tax to the Department of Revenue, and thus are not comprehensively tracked by the agency;³⁷
- It is not possible to isolate businesses that are located on marine shorelines (which are the only ones potentially affected by the rule), so any counts of these businesses would grossly overstate the number of potentially affected businesses; and finally

³⁶ Homeowners' associations, tenants' associations, and property owners' associations would only be considered businesses to the extent they are incorporated. RCW 64.38.010 (Definitions) defines HOAs as a "corporation, *unincorporated association*, or other legal entity, each member of which is an owner of residential real property located within the association's jurisdiction, as described in the governing documents, and by virtue of membership or ownership of property is obligated to pay real property taxes, insurance premiums, maintenance costs, or for improvement of real property other than that which is owned by the member." The inclusion of "unincorporated association" within the definition suggests that not all HOAs are considered businesses in Washington.

³⁷ Specifically, businesses offering long-term rentals are exempted from paying B&O tax (Personal communication with the Department of Revenue on July 8, 2022.)

- Data are not available to identify businesses being operated out of residential homes.

As described in Section 2.1.1., most residential property owners with existing shoreline stabilization are likely already using qualified professionals to develop site assessments and alternatives analyses (either because their local SMP requires it or they have determined the analyses require a professional's services) and are unlikely to incur costs as a result of the proposed rule. Nonetheless, there is some potential that individual property owners outside of areas where qualified professionals are required may incur the costs of utilizing a professional as a result of the proposed rule, and these property owners may include businesses.

Data limitations preclude the specific identification of businesses that have the potential to incur costs as a result of the rule. Instead, Exhibit 2-1 provides contextual information *related to* the businesses that could potentially be affected by the proposed rule.

However, this information should not be interpreted as identifying or limited to the businesses that may or are likely to be affected by the rule. Within the counties with marine shorelines, there are 12,400 businesses representing NAICS 813990 (organizations including homeowners' association) and 4,589 representing NAICS 531110 (lessors of residential properties). Of this universe of businesses in counties with marine shorelines, over 99 percent of those businesses are small (i.e., employ fewer than 50 people). Importantly, these businesses may be located anywhere within the county, are not specifically located on the marine shoreline, and are not specifically located on residential property. Data on home-based businesses are not available. This analysis conservatively assumes that all home-based businesses employ fewer than 50 individuals and are small.

"Minor cost" is defined in RCW 19.85.020 as, "a cost per business that is less than 0.3 percent of annual revenue or income or one hundred dollars, whichever is greater, or one percent of annual payroll." Data limitations prevent identification of the average annual revenues for the potentially affected businesses. As such, we conservatively assume a minor cost threshold of \$100 for this analysis, which is more likely to underestimate than overestimate the minor cost threshold for a given business.

EXHIBIT 2-2. NUMBER OF BUSINESSES, AVERAGE ANNUAL REVENUES, AND MINOR COST THRESHOLD FOR RELEVANT INDUSTRIES - PUGET SOUND AND PACIFIC OCEAN-ADJACENT COUNTIES

TYPE OF BUSINESS (NAICS CODE) ¹	NUMBER OF BUSINESSES ON RESIDENTIAL MARINE-FRONTING PROPERTY	NUMBER OF BUSINESSES IN MARINE-ADJACENT COUNTIES ²	PERCENTAGE OF BUSINESSES CONSIDERED SMALL ³	AVERAGE ANNUAL REVENUES (2021\$)	MINOR COST THRESHOLD
813990 - Other similar organizations, including homeowners' and property owners' associations ⁴	Unknown	12,400	>99 percent	Unknown	\$100
531110 - Lessors of Residential Buildings and Dwellings	Unknown	4,589	>99 percent	Unknown	\$100
Home-based business	Unknown	Unknown	Assume 100 percent	Unknown	\$100
<p>Notes:</p> <ol style="list-style-type: none"> 1. Type of business as identified by primary North American Industry Classification System (NAICS) code. Relevant business types identified through interviews with county and municipal planners conducted in July and August 2022. 2. Represents the total number of businesses within each identified NAICS code within Washington counties with marine shorelines. Count is not limited to businesses actually located along marine shorelines, or to businesses located on residential tax parcels. 3. Percent of businesses with <50 employees based on employment data obtained from the D&B Hoovers database for businesses within each NAICS code within Washington counties with marine shorelines. Count is not limited to businesses actually located along marine shorelines, or to businesses located on residential tax parcels. 4. NAICS code includes a variety of other business/organization types that are not associated with residential property including athletic associations. <p>Source: Business records for businesses within each identified NAICS code within Washington counties with marine shorelines obtained from the D&B Hoovers database on August 2, 2022, https://www.dnb.com/products/marketing-sales/dnb-hoovers.html.</p>					

2.2 COST OF COMPLIANCE

Consistent with RCW 77.55.040, this analysis evaluates the relevance of the following potential categories of costs to comply with the proposed rule:

- **Reporting, recordkeeping, and other compliance requirements:** As described in Section 1.3.3, the proposed rule does not include any new reporting or recordkeeping requirements beyond what is already required by RCW 77.55.231. The sole compliance requirement that is incremental to existing regulation is the need for use of a qualified professional to conduct the site assessment and alternatives analysis.
- **Professional services that a small business is likely to need in order to comply with such requirements:** The rule requires residential shoreline property owners (which, in some cases, may be small businesses) to acquire professional services to support HPA applications for replacing shoreline stabilizations. The rule

requires that applicants use of qualified professionals, which may be permitting facilitators, geotechnical engineers, coastal engineers, or shoreline stabilization design and construction firms, to provide site assessment and alternatives analysis support.

- **Costs required to comply with the proposed rule, including costs of equipment, supplies, labor, professional services, and increased administrative costs:** As previously described, the costs of professional services are relevant to the rule proposal and described in detail below.
- **Based on input received, determine whether compliance with the rule will cause businesses to lose sales or revenue:** The proposed rule does not restrict the regulated business' economic activities or projects. Additionally, the costs of professional services, as described below, are relatively low and only incurred at the time that shoreline stabilizations need replacement. Thus, the rule proposal is not anticipated to affect sales or revenues of regulated businesses.

Based on these findings, the following discussion focuses on the compliance costs of the rule; specifically, the need for HPA permit applicants for marine shoreline residential replacement or rehabilitation stabilization projects to employ a qualified professional to prepare the required site assessment and alternatives analysis report. As detailed in Section 1.2.1, many Washington state counties and municipalities already require the use of a qualified professional to complete the report, while in other counties and municipalities residential property owners regularly elect to employ a qualified professional for this purpose even though it is not explicitly required. For those areas, the proposed rule would not trigger additional costs. The rule would only generate additional costs to residential shoreline property owners if, absent the rule, they would comply with existing requirements without the use of a qualified professional (e.g., by submitting photographs to document slope instability). The proposed rule is largely unlikely to result in additional costs. To the extent that a residential shoreline property owner's use of a qualified professional results specifically from the proposed rule, this section identifies the costs associated with having a qualified professional complete this report and describes the factors that could influence the magnitude of these costs.

The cost estimates developed for this analysis are based primarily on interviews with professional firms providing site assessment and alternatives analysis services. Firms interviewed for this process included firms identifying as permitting facilitators, geotechnical engineers, coastal engineers, and shoreline stabilization design and construction firms. The interview process included nine individual firms whose work collectively represents the majority of the study area, though representation of firms who have completed relevant residential property analysis on the outer (i.e., Pacific) coast was limited. Each interviewee was asked to provide the average range of costs for the services required by the proposed rule, and a description of factors that dictate the specific cost for a given project.

The cost of employing a qualified professional to complete the site assessment and alternatives analysis ranges from \$3,000 to \$10,000.³⁸ This range of costs represents estimates from industry representative interviews and email communications. This range of costs is relevant to multiple project types (new armoring structure project, rehabilitation or replacement shoreline stabilization project), proposed armoring types (e.g., hard armoring, hybrid armoring, soft-shore armoring), number of considered alternatives, and residential property shoreline length. This is because the base level of geotechnical analysis and reporting is unchanged across these metrics. For the same reasons, costs are also similar whether a residential applicant is applying for a general HPA permit or an emergency or expedited permit.³⁹ The range of costs is also unlikely to differ between residential property owners who operate their property as a business and property owners who simply reside within their property.

If a qualified professional can complete the site assessment and alternatives analysis in short order and DFW does not have questions or requests regarding the analysis and reporting, total costs tend toward the low end of the specified cost range. However, the magnitude of incurred costs for any given project is dependent upon the following factors:

- **Upcharges and project delays instigated by demand backlog for a qualified professional:** Only a select number of firms employ qualified professionals who have the expertise to complete the site assessment and alternatives analysis report for residential property owners. This is due to larger engineering firms allocating most (if not all) of their efforts toward non-residential projects with local governments or other clients. Since RCW 77.55.231 was codified in 2021, smaller firms have experienced larger volumes of residential property owners requesting a qualified professional's support for their rehabilitation or replacement bank protection project, leading to a backlog of potential permit applicants. This has led firms to charge more for the same services, and potentially increased costs to the residential property owner due to the delay in successfully acquiring the services of a qualified professional.
- **Need to bring in additional support to complete assessment and report:** If a project has site-specific characteristics that are require extensive critical thinking, a qualified professional may need to bring in additional support to address them (e.g., unclear sources of instability, assess what alternatives are appropriate, whether they can prove need for replacement).

³⁸ Before RCW 77.55.231 was codified, permit applicants for residential rehabilitation and replacement bank protection projects in select areas spent as low as \$1,000 to provide proof of slope instability to necessitate the proposed work. However, since RCW 77.55.231 changed the reporting requirements for these applicants, we assume that the costs to prepare these deliverables are on average no lower than \$3,000.

³⁹ Personal and email communication with representatives of firms providing shoreline stabilization-related services conducted in July 2022.

- **Location of residential property:** Site-specific factors contribute to the level of effort required to conduct the needed site assessment, including but not limited to the types of existing shoreline stabilizations at the site and at surrounding sites.
- **Additional time to communication/educate residential property owners:** If the permit applicant is not knowledgeable about either the reporting requirements or the makeup of their existing stabilization structure, the qualified professional may need to spend additional labor to educate them on the general process of their analysis and selection of the least impacting technically feasible alternative.
- **Additional time to respond to state and/or local government comments:** If the qualified professional needs to respond to state and/or local government comments to their initial submission, the residential property owner will incur additional costs to have the qualified professional address feedback.

In rare instances, costs can reach \$20,000, which could be attributable to several of the above factors, most notably higher than anticipated consultant time spent to respond to WDFW-provided comments. However, based on interviewee feedback, most residential replacement or rehabilitation bank protection projects will incur costs between \$3,000 and \$10,000 to employ a qualified professional to complete the site assessment and alternatives analysis report.

2.3 ASSESSMENT OF MINOR COST

As described in Section 2.1.2, given data limitations, the minor cost threshold for businesses potentially incurring costs due to the proposed rule (i.e., located on a residential, marine-facing parcel, having existing shoreline stabilization that requires replacement, and not already required to engage a qualified professional to develop a site assessment and alternatives analysis due to local ordinances) is assumed to be \$100 (Exhibit 2-1). Because the minor cost threshold is the greater of \$100 or 0.3 percent of average annual revenues, this assumption is more likely to understate than overstate the minor cost threshold for these businesses.⁴⁰ As noted above, the cost of engaging a qualified professional to develop the requisite report could range on average from \$3,000 to \$10,000. As described previously, it is unlikely that businesses will experience new costs as a result of this rule. To the extent that a business will incur costs as a result of the proposed rule, those costs are likely to be more than minor.

2.4 DISPROPORTIONATE ECONOMIC IMPACT ANALYSIS

When proposed rule changes cause more than minor costs to small businesses, the RFA (RCW 19.85.040) requires an analysis that compares the cost of compliance for small business with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the proposed rules to determine whether the costs are

⁴⁰ For businesses whose true minor cost threshold is greater than \$100, this analysis would identify that the minor cost threshold has been exceeded at cost point that is lower than the true minor cost threshold. For businesses who true minor costs are lower than \$100, \$100 is the appropriate minor cost threshold to use.

considered disproportionate. As described in Section 2.1.2, over 99 percent of the businesses operating within the counties with marine shorelines in the relevant NAICS code categories are small, and the analysis assumes that most home-based businesses are also small. As such, this analysis finds that to the extent that businesses will incur costs associated with the rule, the proposed rule is likely to disproportionately impact small businesses. Accordingly, this SBEIS identifies and documents cost mitigation strategies.⁴¹

2.5 COST MITIGATION STRATEGIES

RCW 19.85.030 requires that, when a rule is expected to disproportionately impact small businesses, the agency consider several methods for reducing the impact of the rule on small businesses. These methods may include decisions that were made in determining the provisions of the rule itself, or opportunities to reduce the costs of implementing the rule as written. As described previously, data limitations inhibit the ability to definitively determine the universe and size of affected businesses that would allow for identifying whether the rule will disproportionately impact small businesses. Nonetheless, WDFW has considered the following opportunities to limit the costs of the rule to businesses.

WDFW acknowledges that the pool of qualified professionals who possess the skills to prepare site assessment and alternatives analysis reports is limited. WDFW has partnered with Sea Grant and the Shore Friendly program to develop the *Alternatives to Bulkheads* training series. The series is geared toward shoreline planners, consultants, and marine contractors. It is WDFW's hope that training more practitioners will increase industry capacity and minimize costs by reducing the potential for project delays and/or increased costs that may result from high demand and low supply of qualified professionals. The first two units of the series were launched through the Coastal Training Program in the spring of 2022.

WDFW has chosen to apply new rule requirements only to residential shoreline stabilization replacement, mirroring the legislative changes in SSB 5273. However, the ecological impacts of replacing shoreline stabilization are accrued for all such projects, including commercial and industrial properties, and not just residential projects. Commercial and industrial shorelines are much more likely to have small business landowners than residential sites. By not expanding the rule to include commercial and industrial shorelines at this time, WDFW is taking the potential effects on small businesses into consideration.

RCW 19.85.030(2) specifies particular options that the agency must consider in mitigating rule costs. Exhibit 2-2 identifies each type of cost mitigation opportunity and how WDFW has considered them during this rule proposal process.

⁴¹ The RFA provides several options for comparing costs, including: (a) Cost per employee; (b) Cost per hour of labor; (c) Cost per one hundred dollars of sales (RCW 19.85.040(1)). In the absence of sufficient data to calculate disproportionate impacts, an agency whose rule imposes more than minor costs must mitigate the costs to small businesses, where legal and feasible, as defined in this chapter (RCW 19.85.030(4)).

EXHIBIT 2-2. WDFW ASSESSMENT OF COST MITIGATION OPPORTUNITIES OUTLINED IN RCW 19.85.030

RCW 19.85.030 (2) REQUIREMENTS	WDFW RESPONSE
a) Reducing, modifying, or eliminating substantive regulatory requirements	WDFW considered reducing, modifying, or eliminating substantive regulatory requirements in the proposal. The resulting requirements are limited to those necessary to align WAC 220-660 with SSB 1382 (Laws of 2021, chapter 279) and clarify the intent of the WAC.
b) Simplifying, reducing, or eliminating recordkeeping and reporting requirements	The proposed rule does not create any new recordkeeping or reporting requirements.
c) Reducing the frequency of inspections	The proposed rule does not generate any new inspection requirements.
d) Delaying compliance timetables	The new requirement of the proposed rule is intended to reduce regulatory uncertainty for the regulated community. Thus, delaying compliance timetables in this case may have the effect of increasing the time it takes for HPA approvals if applicants produce site assessments and reports that require additional work and iteration in order to comply with the existing requirements of RCW 77.55.231.
e) Reducing or modifying fine schedules for noncompliance	The proposed rule does not introduce fines for noncompliance.
f) Any other mitigation techniques, including those suggested by small businesses or small business advocates.	WDFW has been and will continue working with the regulated community to identify and implement actions to lessen impacts.

2.6 INVOLVEMENT OF SMALL BUSINESSES IN RULE PROPOSAL PROCESS

This section describes how WDFW has sought to engage affected parties, including small businesses, in the rule proposal process, and how small businesses were involved in the development of the SBEIS.

2.6.1 INVOLVEMENT IN THE PRESENT RULE PROPOSAL

The proposed rule targets shoreline stabilization activities on residential properties and does not directly regulate a specific industry or group of businesses. While residential property owners may be businesses, this is generally not the case. However, in order to ensure due consideration of potential effects on small businesses, WDFW took a broad approach to outreach, communicating the objectives of the rule proposal and capturing input from diverse stakeholders. This provided opportunities for potentially affected small businesses to be involved in the rule proposal process. The outreach activities and events to date are summarized in Exhibit 2-3.

EXHIBIT 2-3. WDFW OUTREACH ACTIVITIES FOR PROPOSED RULE

DATE	PERSON(S)	ACTIVITY
12/16/2021	Hydraulic Code Implementation Advisory Group (HCIAG)	Presentation and discussion on implementation of SSB 5273
1/27/2022	Consultant and contractor businesses; Sea Grant Shoreline and Coastal Planners listserve	Information regarding implementation of SSB 5273
3/10/2022	Sea Grant Shoreline Local Government Working Group	Presentation and discussion on SSB 5273 and rule proposal
5/12/2022	Sea Grant Shoreline Local Government Working Group	Further discussion on rule proposal to implement SSB 5273
5/24/2022	Tribes	Email notification of rule proposal initiation and overview
6/22/2022	Stakeholders and Agencies; Sea Grant Shoreline and Coastal Planners listserve	Email notification regarding publication of CR-101
8/3/2022	Tribes	Rule proposal distributed for review
8/4/2022	Fish and Wildlife Commission Habitat Committee	Introduction to rule proposal in response to SSB 5273
8/12/2022	Tribes	Webinar to review the rule proposal and take comments
8/15/2022	Selected stakeholders	Rule proposal distributed for preliminary review
<p>Note: Information was not available to directly identify businesses operating on residential properties along marine shorelines that may be affected by the proposed rule. Instead, WDFW focused outreach on entities that communicate and provide assistance directly to residential shoreline property owners with respect to the Hydraulic Code, some of whom would presumably be the small businesses potentially affected by the proposed rule.</p>		

2.6.2 INVOLVEMENT IN SBEIS DEVELOPMENT

As described previously, because this rule proposal does not directly regulate a specific industry or group of businesses, it was not possible to directly identify and target outreach activities with respect to SBEIS development at small businesses that may incur costs as a result of the rule. Outreach activities attempted to solicit small business involvement through the following approaches:

- Using WDFW-provided permit information extracted from their Aquatic Protection Permitting System (APPS) database, searched permit applicant name field for terms and acronyms that might suggest applicant was a business (e.g., LLC, company, Co.);
- Attempted contact with 25 residential shoreline property owners who had successfully applied for and received a permit for their residential bank protection project within the last four years, anticipating residentially-based small businesses may be represented in that group; and

- Directly solicited recommendations from interviewed firms for past clients that were residentially based businesses.

Ultimately, outreach efforts were not able to successfully engage any potentially affected small business in providing data and input for the SBEIS.

A more complete description of the outreach activities conducted to support this analysis is included in Attachment A.

2.7 JOBS CREATED OR LOST

Through the requirement that residential property owners wishing to replace or rehabilitate existing marine shoreline stabilization utilize a qualified professional to develop a site assessment and alternatives analysis, the rule has the potential to impose costs on small businesses operating on residential marine parcels. These costs would only be incremental costs of the proposed rule if the requirement to use a qualified professional to develop a site assessment and alternatives analysis is not already in place through the local government's SMP and would only be incurred in the event that existing shoreline stabilization requires replacement or rehabilitation. As repair and replacement for a given shoreline stabilization project occurs infrequently, these costs are generally anticipated to be incurred one time, or infrequently (rather than being ongoing costs). Although the costs are more than minor, they are relatively low and would occur only infrequently, and it is thus unlikely that the costs incurred would result job loss.

A requirement that a qualified professional be used to develop a site assessment and alternatives analysis may result in an increased demand for those services. Several individuals interviewed identified that there exists a relatively limited pool of qualified individuals to perform these services in the region. To the extent that increased demand for these services results in qualified professional firms hiring additional staff, that creation of jobs could be considered an indirect effect of the rule. However, whether this would occur, and the number of businesses or jobs affected, is uncertain.

2.8 SUMMARY CONCLUSIONS

This rule proposal applies specifically to residential shoreline property owners who need to replace existing shoreline stabilization. The rule proposal requires this population, which may include small businesses, to employ a qualified professional in developing site assessments and alternatives analyses. It is unlikely that this rule will generate costs and, if it does, the costs to small businesses are likely to be very limited for the following reasons:

- Residential shoreline property owners include but are not limited to businesses. However, it is likely that businesses that do own residential shoreline properties are small.
- Shoreline property owners are required to comply with existing requirements under RCW 77.55.231, including the need to develop a compliant site assessment

and alternatives analysis. The new rule proposal does not generate requirements for new reports.

- Many existing SMPs for counties and municipalities require the use of a qualified professional to develop these reports. In these cases, the new rule proposal does not impose any new requirements.
- While some property owners may attempt to accomplish the analysis and reporting requirements without the use of a qualified professional, outreach and interviews conducted in the context of this SBEIS identify that most of the time, property owners recognize a need to rely upon the expertise of a qualified professional, even absent the requirement being written into regulation.
- The rule proposal may reduce the costs of HPA permits for the subset of residential property owner that would attempt to comply with reporting requirements without the use of a qualified profession absent this rule proposal. This is because not using a qualified professional may result in non-compliant reports and analyses that result in comments from DFW and require re-analysis and revision. Use of a qualified professional reduces the risk of submitting non-compliant reports the first time.

Available data do not allow for a specific identification of the number of small businesses operating on marine shoreline residential properties that may experience costs as a result of the rule, or the extent to which those businesses are small. Employment data for businesses potentially operating on residential parcels within the affected counties suggest 99 percent of these businesses are small. It is unlikely that residential property owners, including small businesses, will incur costs as a result of this rule. However, to the extent that businesses do incur these costs, the costs would be borne disproportionately by small businesses, and are likely to be more than minor.

REFERENCES

DATA FROM PRIMARY RESEARCH, MONITORING ACTIVITIES, OR OTHER SOURCES

Email communication between WDFW and IEc on May 19, 2022, May 23, 2022, June 28, 2022, June 29, 2022, June 30, 2022, July 7, 2022, and July 27, 2022.

Personal communication between WDFW staff and IEc, May 19, 2022, June 15, 2022, June 29, 2022, July 13, 2022, and July 27, 2022.

Personal and email communication with geotechnical/engineering firms conducted in July 2022.

Personal and email communication with local government representatives conducted in July 2022 and August 2022.

Personal and email communication with marine shoreline residential property owners conducted in July 2022.

Personal and email communication with the Washington State Department of Revenue conducted in July 2022.

LEGAL AND POLICY DOCUMENTS

RCW, (Revised Code of Washington) 19.85

RCW 77.55.021

RCW 77.55.231

RCW, 90.58

WAC (Washington Administrative Code) WAC 220-660-370

Washington Department of Ecology. 2022. Shoreline Management Act (SMA). Viewed at <https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-laws-rules-and-cases#:~:text=The%20state%20Shoreline%20Management%20Act,shoreline%20use%20in%20their%20jurisdictions>, July 29, 2022.

Washington Department of Ecology. 2022. State approved Shoreline Master Programs. Viewed at <https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/State-approved-Shoreline-Master-Programs>, 1 August, 2022.

**ATTACHMENT A | OUTREACH SUMMARY AND LIST OF INDIVIDUALS
INTERVIEWED IN JULY/AUGUST 2022**

To support development of this SBEIS, the analysis relies on outreach and participation of local government officials, firms that provide permitting support, site assessment and alternatives analysis, or engineering and construction services, and residential marine shoreline property owners to provide data and information to evaluate the potential costs of the rule on small businesses. IEc relied upon several sources to identify and obtain contact information for these entities, including county and municipal Shoreline Master Programs and DFW-provided permit information extracted from their Aquatic Protection Permitting System (APPS) database.

IEc conducted interviews with representatives chosen per a variety of selection criteria. County and municipal interviewees were chosen based on whether their area's Shoreline Master Program contains current requirements for residential rehabilitation and replacement bank protection projects that either closely match that of the proposed rule or are widely different. This was done to capture the full extent of potential involvement across local areas. Area representatives were also identified by whether they contained a large concentration of marine residential properties and businesses that contain existing shoreline modification. Firms were chosen based on whether they are highly represented in WDFW's provided APPS database, which IEc took as evidence that they would have much experience developing the required site assessment and alternatives analysis report.⁴² Some industry interviewees were also chosen per WDFW and Washington Department of Ecology recommendation. Residential property owners were chosen based on if they had successfully applied for and received a permit for their residential bank protection project within the last four years.

Between July 6, 2022, and August 2, 2022, IEc reached out by email to invite representatives to participate in an interview. Potential interviewees who IEc did not initially hear from received at least one additional outreach email, and interviewees who did respond were generally available to meet via video call during Pacific Daylight Time business hours. For potential contacts who did not respond to either the initial or follow-up email, IEc assumed those contacts had elected not to participate in the process, and no further effort was made to contact them. Altogether, IEc attempted to connect with 22 local government officials, 15 engineering consulting firms, and 25 marine shoreline

⁴² In some instances, IEc found that the listed contacts in WDFW's APPS database were representatives that managed the overall permit application process and outsourced the site assessment and alternatives analysis services to a separate firm. During these meetings, IEc requested for and received contact information for several geotechnical engineering firms that perform the site assessment and alternatives analysis in house and met with several of them after contacting them through email.

residential property owners. Of the 62 total individuals IEC contacted, 37 either declined to participate or did not respond to IEC's outreach emails. Ultimately, IEC conducted interviews with 13 local government officials, nine firms, and three marine shoreline residential property owners (see Exhibit A-1). Interviews generally followed the list of questions presented in Attachment B, though interviewees were invited to provide additional thoughts as they deemed relevant.

EXHIBIT A-1. LIST OF INTERVIEWEES

DESCRIPTION OF INTERVIEWEES ¹
Shoreline planner at King County
Shoreline planner at Kitsap County
Shoreline planner at Pierce County
Shoreline planner at Snohomish County
Shoreline planner at Mason County
Shoreline planner at Jefferson County
Shoreline planner at Island County
Shoreline planner at Grays Harbor County
Shoreline planner at Thurston County
Shoreline planner in Olympia
Shoreline planner in Anacortes
Shoreline planner in Bainbridge Island
Shoreline planner in Gig Harbor
Consulting/engineering professional at Soundview Consultants, LLC
Consulting/engineering professional at Leon Environmental, LLC
Consulting/engineering professional at Sealevel Bulkhead Builders, Inc.
Consulting/engineering professional at Saratoga Environmental, LLC
Consulting/engineering professional at Coastal Solutions, LLC
Consulting/engineering professional at Aspect Consulting, LLC
Consulting/engineering professional at Blue Coast Engineering
Consulting/engineering professional at Qwg Applied Geology
Consulting/engineering professional at GeoResources, LLC
Residential marine shoreline property owner in Mason County
Residential marine shoreline property owner in Pierce County
Residential marine shoreline property owner in Island County
Notes:
1. Individuals are not identified by name to protect the privacy of interview participants.

ATTACHMENT B | INTERVIEW GUIDE

INTERVIEW QUESTIONS

INTRODUCTION

- IEc is an environmental and economic consulting firm with expertise in developing regulatory analyses for state and federal agencies.
- IEc has been retained by the Washington Department of Fish and Wildlife to develop a Cost Benefit Analysis and a Small Business Economic Impact Statement for a forthcoming proposed rule that would modify the state’s hydraulic code.
- The Cost Benefit Analysis compares the costs and benefits that would result from the rule, while the SBEIS considers whether the rule will disproportionately affect small businesses or impose more than minor costs on them (defined as businesses employing <50 people).
- The existing regulations were recently updated to require that residential shoreline property owners wishing to replace existing shoreline protection structures must use the least impactful technically feasible alternative and must include in their permit application a site assessment and alternatives analysis.
- The proposed rule would clarify the existing process for complying with those requirements, including confirming that the site assessment and alternatives analysis be conducted by a certified professional.
- Our analysis is focused on the costs and benefits associated with the requirement to use a certified professional to develop the site assessment and alternatives analysis. It does not consider costs associated with the requirement to use the “least impactful technically feasible alternative”, as that requirement is already in statute, and is not part of the proposed rule. (Noting that the cost of evaluating those options within a report would be considered a cost of the rule).
- We are conducting a series of interviews with county and municipal planners, firms that provide site assessment services, and residential shoreline property owners to better understand the requirements as they stand today, the costs of complying with those requirements, and how or if the rule might result in additional costs to residential property owners.

QUESTIONS FOR FIRMS PROVIDING SITE ASSESSMENT AND ALTERNATIVES ANALYSIS SERVICES

- What geographic areas (counties and municipalities) does your firm service?
- Please describe the types of analyses/reports you provide for property owners with respect to shoreline stabilization and/or armoring. Site assessments? Alternatives analysis? Design Rationale?
- Are there standard analyses and information that is included in all reports you produce or are there different types of analyses that might be done depending on the regulatory need (e.g., alternatives analysis)?
- Are there differences in the types/costs of services you have typically provided for new residential shoreline protection structures vs. those that are being rehabilitated or replaced?
- How much do you charge for your services, broken out by individual item/analysis type, if applicable? What variables drive the cost of the report? For example,
 - New structure vs. replacement?
 - Existing armoring type?
 - How many/which types of alternatives need to be considered (e.g., including consideration of soft/nature-based protection)?
 - Project location?
 - Property type?
 - Shoreline length/slope?
 - Other?
- Would a new requirement that residential replacement structures use the least impactful technically feasible alternative, and that they demonstrate that they are doing so through an alternatives analysis, change the cost of your services for the permit applicant?
- Within the areas where you provide services, do you have a sense of which county/municipal codes currently require a geotechnical analysis/qualified professional's report for repair/replacement of structures on residential property?
- What is the life expectancy for shoreline protection structures of different types? How long do structures of each type typically last before they need to be rehabilitated or replaced?
- For residential property owners that you have provided services for, do you have a sense of any that might be considered businesses?

QUESTIONS FOR COUNTIES AND MUNICIPALITIES

- What are the primary objectives and targeted benefits of current shoreline armoring requirements within your county/municipality?
- The hydraulic code (WAC) currently requires that a property owner that wants to construct *new* shoreline protection or *replace existing protection waterward of the existing protection* use the least impactful, technically feasible option, and submit a qualified professionals report that includes a site assessment, alternatives analysis, and design rationale (*details below, which we can read to them*). How do these requirements compare to what is required by your Shoreline Management Program (SMP)?
- What baseline shoreline stabilization and/or armoring construction/replacement reporting or analysis requirements (if any) are currently in place with respect to alternatives analysis, site assessment, and report development within your jurisdiction's SMP? Are they the same as what is required by the existing WAC? More stringent?
 - Do they apply only to new structures?
 - What requirements are in place for replacement structures?
 - Do you require use of a certified professional to complete any required assessments?
- Could someone meet these requirements without the use of a certified professional?
- The proposed rule would extend the existing requirement for new residential structures to have a qualified professional conduct a site assessment and alternatives analysis, to replacement structures. Are these things your SMP already requires for residential replacement structures, or would they go above and beyond your requirements?
- For residential property permit requests for shoreline armoring, can you estimate the proportion each year that are for new structures vs. replacement or rehabilitation?
- For the SBEIS, we are particularly interested in understanding the locations and numbers of shoreline residential properties that may be businesses.
 - Do you have a sense of the types of businesses that might be relevant here?
 - Are there particular locations in which these types of businesses are concentrated?
- Are these businesses considered to be commercial or residential properties with respect to compliance with the existing WAC?

QUESTIONS FOR RESIDENTIAL PROPERTY OWNERS

- What is your relationship to/interest in the property? Are you a homeowner that resides on the property? Is it a rental property? Do you own and manage the property as a business that provides housing?
- Was your project for constructing a new shoreline protection structure, or replacing or rehabilitating an existing structure? If it was a replacement or rehabilitation project:
 - What type of structure were you replacing?
 - Do you know the age of the structure and/or when it was last rehabilitated?
- What information, reports, and analyses were you required to submit with your permit application? For example:
 - Assessment of risk?
 - Proof of erosion?
 - Assessment of alternatives for protection (e.g., soft, natural protection vs hard structures)?
 - Design rationale?
- Did you use a certified professional to fulfill these requirements?
 - If yes, how much did you pay for those services? Do you have information about the respective costs of different elements of the work or analyses that were done for you?
 - If no, how did you meet those requirements and what costs did you incur to do so?
- Were there other costs that you incurred associated with these reporting requirements aside from paying for the report?

ATTACHMENT C | DATA DICTIONARY

DATA ITEM	SOURCE
Costs of employing a qualified professional to complete marine shoreline residential bank protection geotechnical analysis	<p>Personal and email communication with representatives of firms providing shoreline stabilization-related services conducted in July 2022.</p> <p>Personal and email communication with marine shoreline residential property owners conducted in July 2022.</p>
Identification of counties and municipalities with existing requirements for qualified professional's report	<p>Personal and email communication with representatives of county and municipal planning departments conducted in July and August 2022.</p> <p>Review of SMPs for all marine shoreline jurisdictions.</p>
Total tax parcels, residential tax parcels, single family residential tax parcels, and multi-unit residential tax parcels	Private geospatial data identifying existing marine shoreline parcels provided via secure server to IEC by WDFW on May 23, 2022.
Marine shoreline with anthropogenic modification	<p>Publicly accessible geospatial from the Washington State Shorezone Inventory, Available at: https://www.dnr.wa.gov/programs-and-services/aquatics/aquatic-science/nearshore-habitat-inventory</p> <p>Beach Strategies Geodatabase (2017), Coastal Geologic Services, Available at: https://fortress.wa.gov/dfw/public/PublicDownload/Habitat/BeachStrategies/</p>
Permit database including project description and project applicant and permitting agent contact information	<p>Personal and email communication with DFW representatives conducted in May 2022 and June 2022.</p> <p>Aquatic Protection Permitting System accessed online in July 2022, Available at https://www.govonlinesaas.com/WA/WDFW/Public/Client/WA_WDFW/Shared/Pages/Main/Login.aspx</p>