

IEC

Establishing the Commercial Whale Watch License and Restrictions on Commercial Viewing of Southern Resident Orca Whales

Small Business Economic Impact Statement

21 October 2020

prepared for:

Washington Department of Fish and Wildlife

1111 Washington St. SE

Olympia WA 98501

(360) 902-2200

prepared by:

Industrial Economics, Incorporated

2067 Massachusetts Avenue

Cambridge MA 02140

(617) 354-0074

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

SECTION 1 INTRODUCTION 1

1.1 Need for the Rule *1*

1.2 Summary of Proposed Rule *1*

1.3 Requirements for Small Business Economic Impact Statement *5*

SECTION 2 SMALL BUSINESS IMPACTS 5

2.1 Small Businesses Affected *6*

2.2 Cost of Compliance *8*

2.3 Assessment of Minor Cost *12*

2.4 Disproportionate Economic Impact Analysis *14*

2.5 Cost Mitigation Strategies *14*

2.6 Involvement of Small Businesses in Rule-Making Process *17*

2.7 Jobs Created or Lost *17*

REFERENCES

LIST OF ACRONYMS AND ABBREVIATIONS

AIS	Automatic Identification System
CFR	Code of Federal Regulations
CWW	Commercial Whale Watch
CWWLP	Commercial Whale Watch License Program
KELP	Kayak Education and Leadership Program
NAICS	North American Industry Classification System
ORIA	Office of Regulatory Innovation and Assistance
PWWA	Pacific Whale Watch Association
RCW	Revised Code of Washington
RFA	Regulatory Fairness Act
SBEIS	Small Business Economic Impact Statement
WDFW	Washington Department of Fish and Wildlife
WRAS	Whale Report Alert System
WSAS	Washington State Academy of Sciences

1. INTRODUCTION

In 2019, the Washington State Legislature passed a law (Revised Code of Washington (RCW) 77.65.620) requiring the Washington State Department of Fish and Wildlife (WDFW) to adopt rules for viewing Southern Resident orca whales (Southern Residents) in Washington's inland waters for commercial whale watch (CWW) license holders. This Small Business Economic Impact Statement (SBEIS) evaluates the potential impacts of the proposed rule on small businesses in accordance with the Regulatory Fairness Act (RFA), Chapter 19.85 RCW. This analysis relies on information gathered through outreach to businesses in the industry and knowledgeable subject matter experts to estimate the potential costs of the proposed rule, evaluate the extent to which the expected costs may be borne by small businesses, and provide information on potential cost mitigation measures.

1.1 NEED FOR THE RULE

The Southern Residents are the only known resident population of orcas in the contiguous United States. They spend spring and summer months primarily in the inland marine waters of Washington and British Columbia and spend winter months primarily in the coastal waters of the Pacific Ocean between California and British Columbia. Southern Residents are listed as endangered under federal and Washington State law, and vessel disturbance and noise have been identified as stressors that threaten their viability in Washington's waters.

The purpose of creating a new licensing program and establishing regulations for CWW vessels is to ensure sustainable CWW practices that reduce the daily and cumulative impacts of vessel noise and disturbance on Southern Residents so they can effectively forage, rest, and socialize, while also considering the economic viability of CWW license holders. The Commercial Whale Watching Licensing Program (CWWLP) is intended to further protect the Southern Residents from disturbance, risk, and noise from vessel traffic — one of four threats identified by the Southern Resident Orca Task Force in 2018-19, along with lack of prey, toxic contaminants, and climate change.

1.2 SUMMARY OF THE PROPOSED RULE

WDFW, in consultation with the CWWLP Advisory Committee (Advisory Committee), considered many and varied regulatory requirements (i.e., rule elements) designed to minimize the impacts of CWW activity on Southern Residents. The proposed rule elements generally reflect either regulation of vessel behavior (e.g., frequency of activity, location of activity), or other measures designed to limit impacts of CWW activity on Southern Residents, such as training vessel operators and others on aspects of responsible Southern Resident viewing (Table 1). While some of the listed provisions have been previously adopted by members of the CWW industry on a voluntary basis, the proposed rule would formally codify them. Certain rule elements apply to all CWW vessels, while some proposed rule elements apply only to motorized vessels, and others apply only to human-powered vessels (e.g., kayaks). WDFW's proposed rule considers two alternative options (Option A and Option B) which include differing requirements relative to vessel

limits, timing/season viewing limits, and reporting, but are otherwise identical. The rule elements proposed under rule Option A and rule Option B are described below and summarized in Table 1.

Provisions Applying to All CWW Vessels

RCW 77.65.615 currently requires that all CWW operators have a CWW license, and establishes the fees associated with licensing. Consistent with that requirement, both rule options of the proposed rule would require that all CWW vessels operating in Washington State waters have the necessary licenses to engage in CWW, regardless of the country or state in which the business is based. The general provisions of the proposed rule options, which pertain to all CWW vessels, include license application process and requirements, as well as vessel positioning restrictions. The proposed rule options would both standardize the application and renewal process for vessel operators, clarify the necessary license types for each vessel, explain alternate operator requirements, and stipulate a license replacement cost.

Both rule options would also codify the existing voluntary closure of critical habitat and foraging areas off the west side of San Juan Island to motorized vessels, and the voluntary measure requiring non-motorized vessels to stay within 100 yards of shore in the area. The proposed rule options note that future rules may modify or add to these closed areas.

Finally, the proposed rule options both stipulate training and reporting practices for both motorized and non-motorized vessels beginning on May 1, 2021. All CWW license holders and alternate operators would be required to undergo WDFW training on responsible Southern Resident viewing practices, including identifying marine mammals, estimating distances on the water, impacts of whale watching on marine mammals, and Southern Resident-related reporting, and would need to demonstrate adequate understanding of course materials. All vessels would also be required to maintain logs of each instance a vessel operating under a license enters within a one-half nautical mile vicinity of Southern Residents. The proposed rule options require that logs should include qualitative details of orca encounters including whale behavior and health, other vessel behavior, and any operator behavior- including contact with other boaters or government entities- and resulting outcomes. Logs from each month would be submitted to the department by the 15th of the following month (e.g. June logs must be submitted by July 15th), while vicinity instances outside of permitted hours and days would be submitted within 24 hours. Although the content and timing (relative to vicinity instances) of log reporting requirements are identical between Option A and Option B, the number of times logs must be submitted annually differs between the two options. Under rule Option A, logs would be submitted to WDFW three times annually, while rule Option B would require that logs be submitted seven times annually, corresponding to the number of months in which Southern Resident viewing by motorized commercial whale watching vessels would be allowed under each option, respectively.

In addition to these rule elements that pertain to both motorized and human-powered vessels, the following rule elements are specific to motorized vessels or human-powered vessels.

TABLE 1. SUMMARY OF PROPOSED RULE OPTIONS

RULE ELEMENT	APPLICABILITY	DESCRIPTION	
		OPTION A	OPTION B
Licensing	Motorized Vessels and Kayak Tours	Confirms requirement under RCW 77.65.615 that all CWW vessels must be in possession of the required license.	
Closed Areas	Motorized Vessels and Kayak Tours	CWW is prohibited off the west side of San Juan Island for motorized vessels, and non-motorized vessels must stay within 100 yards of shore in the area.	
Training	Motorized Vessels and Kayak Tours	All CWW license holders and alternate operators are required to undergo WDFW training on responsible Southern Resident viewing practices.	
Logs	Motorized Vessels and Kayak Tours	All vessels must maintain logs of each instance a vessel operating under a license enters within a one-half nautical mile vicinity of Southern Residents and submit the logs to WDFW by the 15 th of the following month.	
		Logs must be submitted three times annually, corresponding to each month in which Southern Resident viewing is permitted.	Logs must be submitted seven times annually, corresponding to each month in which Southern Resident viewing is permitted.
Real-Time Reporting	Motorized Vessels	Require real-time reporting to the Whale Report Alert System (WRAS) of Southern Resident sightings.	
Number of Boats	Motorized Vessels	Limit of three motorized CWW vessels at a time to be in the vicinity of a Southern Resident. No vessel may be within the vicinity of a whale that is sick, vulnerable, or under one year of age.	Limit of three vessels from July 1 to September 30, and a limit of one vessel from May 1 to June 30 and from October 1 to November 30. No vessel may be within the vicinity of a whale that is sick, vulnerable, or under one year of age.
Days and Hours	Motorized Vessels	Viewing of Southern Residents restricted between October 1 and June 30, and outside the hours of 10am to 12pm and 3pm to 5pm, from Friday through Monday, from July 1 through September 30.	Viewing of Southern Residents restricted between December 1 and April 30, and outside the following periods: 10am to 12pm and 3pm to 5pm, from Friday through Monday, from July 1 through September 30; 10am to 12pm and 3pm to 5pm, from Saturday through Sunday, from May 1 through June 30; 10am to 12pm and 2pm to 4pm, from Saturday through Sunday, from October 1 through November 30.
AIS	Motorized Vessels	Vessels must install and maintain AIS.	
Proximity and Position	Kayak Tours	Require specific behaviors when in vicinity of Southern Residents to prevent disturbance including delaying launches, rafting up, and avoiding the path of a whale.	

Motorized Vessels

For motorized vessels only, the proposed rule would create limitations on the months, days, and times during which operators may be in the vicinity of Southern Residents, as well as the maximum number of vessels allowed in the vicinity at one time. Both Option A and Option B would restrict all vessels from being within the vicinity of a whale that is sick, vulnerable, or under one year of age. Both options would also require expected operating procedures should a vessel unintentionally enter the vicinity of Southern Residents, stipulating that the vessel reposition itself, report the whale location to the Whale Report Alert System (WRAS), and send a log to WDFW within 24 hours.

Regarding number of vessels, Option A would set a limit of three motorized commercial whale watching vessels at a time to be in the vicinity of a Southern Resident. Option B would set a limit of three vessels from July 1 to September 30, and a limit of one vessel from May 1 to June 30 and from October 1 to November 30.

Regarding season and viewing duration, Option A would restrict vessels from entering within one-half nautical mile of Southern Residents during the following periods:

- Between October 1 and June 30; and
- Outside the hours of 10am to 12pm and 3pm to 5pm, from Friday through Monday, from July 1 through September 30.

Option B would restrict vessels from viewing Southern Residents during the following periods:

- Between December 1 and April 30;
- Outside the hours of 10am to 12pm and 3pm to 5pm, from Friday through Monday, from July 1 through September 30;
- Outside the hours of 10am to 12pm and 3pm to 5pm, from Saturday through Sunday, from May 1 through June 30; and
- Outside the hours of 10am to 12pm and 2pm to 4pm, from Saturday through Sunday, from October 1 through November 30.

Both Option A and Option B would stipulate that a vessel cannot enter the one-half nautical mile vicinity during both the morning and afternoon viewing periods on the same day.

Beginning January 1, 2022, under both rule options, motorized vessels would also be required to install and maintain an automatic identification system (AIS) that can report information regarding the vessel's identity, type, position, course, speed, and navigational status to state and federal authorities automatically. Motorized vessels would also be required to report accurate, complete sighting information to the WRAS each time the vessel enters within a one-half nautical mile of a Southern Resident.

Non-Motorized Vessels

Under both Options A and B, non-motorized vessels, such as kayaks, would be subject to the following additional restrictions:

- It would be unlawful to launch if Southern Residents are within one-half nautical mile of the launch location.
- Vessels would be prohibited from paddling, positioning, or waiting in the path of a Southern Resident. If a Southern Resident is moving towards the vessels, the vessels would be required to immediately move out of the path of the whale. This rule element is presently implemented voluntarily under the Kayak Education and Leadership Program (KELP) guidelines.
- If vessels inadvertently encounter a Southern Resident, they would immediately move all vessels to as close to shore as possible and secure themselves, or raft up close to shore or in a kelp bed and stop paddling until any and all whales have moved to at least 400 yards away from the vessels. This rule element is presently implemented voluntarily under the KELP guidelines.

1.3 REQUIREMENTS FOR SMALL BUSINESS ECONOMIC IMPACT STATEMENT

RCW 19.85.030 requires that the relevant agency prepare an SBEIS if the proposed rule “will impose more than minor costs on businesses in an industry.”¹ “Minor cost” 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.² WDFW has determined that this proposed rule is likely to result in more than minor costs to businesses in the affected industry, and has prepared an SBEIS accordingly. This SBEIS is developed in accordance with the guidelines described in RCW 19.85.030 and RCW 19.85.040, and relevant guidance and resources provided by Washington State’s Office for Regulatory Innovation and Assistance (ORIA).^{3,4}

2. SMALL BUSINESS IMPACTS

This section describes the analysis of potential economic impacts on small businesses. Section 2.1 of this analysis first identifies the number of small businesses affected and the minor cost thresholds for the affected industry. Section 2.2 presents information on the estimated costs of compliance for these small businesses and Section 2.3 compares those costs with the minor cost thresholds. Section 2.4 discusses the extent to which the proposed rule affects small businesses and Section 2.5 describes the strategies that WDFW may consider to mitigate these costs. Section 2.6 describes the engagement of

¹ RCW 19.85.030 Agency Rules – Small Business economic impact statement reduction of costs imposed by rule. Accessed July 31, 2020 at: <https://app.leg.wa.gov/RCW/default.aspx?cite=19.85.030>.

² RCW 19.85.020 Definitions. Accessed July 31, 2020 at: <https://app.leg.wa.gov/rcw/default.aspx?cite=19.85.020>.

³ RCW 19.85.040 Small business economic impact statement—Purpose—Contents. Accessed July 31, 2020 at: <https://app.leg.wa.gov/RCW/default.aspx?cite=19.85.040>.

⁴ ORIA. 2020. Regulatory Fairness Act Support. Accessed July 31, 2020 at: https://www.oria.wa.gov/site/alias_oria/934/regulatory-fairness-act-support.aspx.

small businesses in the rulemaking process, and Section 2.7 evaluates the impact of the rule on employment.

2.1 SMALL BUSINESSES AFFECTED

The universe of small businesses that may bear costs to comply with the CWW licensing regulations include all holders of the State’s CWW license. RCW 77.65.615 requires a CWW license for CWW operators, defined to include commercial vessels and kayak rentals that are engaged in the business of whale watching. “Commercial whale watching” is defined in RCW 77.65.615 as the act of taking, or offering to take, passengers aboard a vessel in order to view marine mammals in their natural habitat for a fee. Thus, any business that plans to engage in an activity that meets the definition of “commercial whale watching” would be required to be licensed.⁵ All affected businesses are small as defined by Chapter 19.85 RCW (i.e., having 50 or fewer employees) based upon information provided during industry interviews, and average employment data provided by the Washington Department of Revenue.^{6,7,8}

Three types of businesses (“sectors”) within the North American Industry Classification System (NAICS) code 487210, “Scenic and Sightseeing Transportation, Water” may incur costs associated with the proposed rule. The potential effects of the proposed rule on a given business depend on the nature of the vessels used, the types of excursions, and the extent to which viewing orca whales, and Southern Residents in particular, is a focal feature of the tours.

- The **Primary Motorized Whale Watch** sector includes motorized or sailing vessel excursions with the express and primary purpose of viewing whales. The sector consists of two sub-sectors that differ in terms of company size and revenues. Both consist exclusively of small businesses, but they may experience different relative effects of the rule given differences in revenues, and differences in baseline operations.
- The **Kayak Tour** sector includes human-powered group paddling tours, including day trips and multi-day excursions, for sightseeing, coastal exploration, camping, and wildlife viewing. The Kayak Tour sector engages in whale watching activity only opportunistically, and customers generally participate for reasons other than viewing whales.
- The **Incidental Whale Watch** sector includes motorized or sailing excursions primarily for non-whale viewing purposes including sightseeing, dining cruises, transportation (ferry, water taxi), charter fishing, viewing other wildlife (e.g.,

⁵ Affected businesses identified using Soundwatch data for 2015 through 2019 that identify businesses it had observed participating in whale watching, and an evaluation of the extent of that company’s activity (“Active”, “Occasional”, or “Rare”) based upon the number of days per week they were observed engaging in whale watching.

⁶ The determination that all affected businesses are small businesses is based on the known sizes of the US-based CWW operators and small business thresholds as defined by the State of Washington. The sizes of Canadian-based CWW vessels are not known.

⁷ Personal and email communication with PWWA staff and member companies on June 5, 2020, and July 23, 2020.

⁸ Data provided to IEc by Washington Department of Revenue, Research and Fiscal Analysis, June 11, 2020.

birds), etc. Businesses in this sector only participate in whale watching opportunistically.⁹

“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. As revenue information is more available than payroll, the analysis calculates minor cost thresholds based on revenues of business entities in the affected industry sectors.

Table 2 identifies by sector the number of businesses, estimated employment, the percent of businesses defined as “small” as defined by RCW 19.85 (i.e., having 50 or fewer employees), the average annual revenues per business in that sector, and the minor cost threshold for the analysis.¹⁰ As identified in Table 2, the industry comprises small, lower revenue businesses, resulting in minor cost thresholds that would be exceeded with relatively limited rule costs. Of note, the number of affected businesses in the second column of Table 2 is inclusive of Canadian CWW businesses that engage in whale watching in Washington’s inland waters. However, the information on estimated employment, percent of businesses defined as small, and average annual revenues per business is based on data for U.S.-based CWW businesses. The definitions of small businesses and the minor cost thresholds are as established by the State of Washington.

TABLE 2. DESCRIPTION OF AFFECTED INDUSTRY

TYPE OF BUSINESS	# OF AFFECTED BUSINESSES ¹	ESTIMATED EMPLOYMENT ²	PERCENT OF BUSINESSES DEFINED AS SMALL ³	AVERAGE ANNUAL REVENUES PER BUSINESS ^{4,5}	MINOR COST THRESHOLD ⁶
Primary Motorized Whale Watch ⁷	21	160	100 percent	\$1.1 million	\$3,300
Kayak Touring	12	60	100 percent	\$235,110	\$700
Incidental Whale Watch	7	35	100 percent	\$113,680	\$340

⁹ Not all businesses within this sector participate in whale watching. Thus, some portion of these businesses may not become licensed, and would not incur costs under the proposed rule.

¹⁰ Revenue data are based on data for Washington-based businesses.

Notes:

¹ The number of Primary Motorized Whale Watch businesses includes 16 Canadian companies and 13 U.S. businesses identified as actively participating in whale watching in 2019 according to data provided by Soundwatch. These businesses are members of the Pacific Whale Watch Association (PWWA) and reported revenues in 2019. Additionally, this includes two additional businesses identified as whale-watch focused through review of their websites although they are not members of PWWA. The Incidental Whale Watch list includes those other businesses identified as participating in whale watching in 2019 according to Soundwatch data and which reported revenues in 2019. It does not include multinational cruise ship companies, as this analysis assumes those businesses would not choose to pursue a CWW license. The Kayak Touring list includes the most recently available compiled company list available from Soundwatch (2015), limited to companies that reported revenues in 2019.

² Total employment represents employment for U.S.-based businesses and includes both full-time and seasonal jobs. Estimate for the Primary Motorized Whale Watch sector and Incidental Whale Watch sector based on average employment per business provided by the Washington Department of Revenue and email communication with a PWWA member company on July 13, 2020. Employment for Canadian businesses was not available for this analysis.

³ Defined as having 50 or fewer employees. All businesses in sectors identified as “small” based on information for U.S.-based companies derived from personal and email communication with PWWA staff and member companies on June 5, 2020, and July 23, 2020 (Primary Motorized Whale Watch sector), and average employment data provided by the Washington State Department of Revenue (Incidental Whale Watch and Kayak Tour sectors).

⁴ Average annual revenues for the Primary Motorized Whale Watch sector represents a weighted average of the revenues of the three largest, highest revenue businesses in the sector, and the 12 smaller, lower revenue businesses based in Washington State. Revenue data for the larger businesses is estimated by the following methodology: multiplied estimated 2019 ridership based on data provided by a PWWA member company by the average adult ticket price in 2019 for large companies (\$75, provided by PWWA member company).

⁵ 2019 revenue data for the Kayak Touring and Incidental Whale Watch sector provided by the Washington Department of Revenue, Research and Fiscal Analysis, June 11, 2020.

⁶ Equal to 0.3 percent of average annual revenues.

⁷ The Primary Motorized Whale Watch sector consists of two sub-sectors that differ in terms of company size and revenues. Both consist exclusively of small businesses, but may experience different relative effects of the rule given differences in revenues. The average annual revenues (minor cost threshold) for the 12 smaller businesses (primarily based in the San Juan Islands) are \$840,000 (\$2,500), and for the three larger businesses (based on the mainland) are estimated to be \$2.1 million (\$6,400).

2.2 COST OF COMPLIANCE

Chapter 19.85 RCW requires that an SBEIS consider the costs imposed by the rule on the regulated industry. Costs to be considered in the analysis include direct compliance costs (e.g., expenditures required to comply with the rule), as well as revenue impacts resulting directly from adherence to the regulatory requirements (e.g., if the rule limits the number of tickets that could feasibly be sold). Certain rule elements, though they may result in costs to the industry, would not result in direct costs of relevance to the SBEIS.

Rule Elements Not Resulting in Costs Relevant to the SBEIS

As noted above, the SBEIS considers costs directly imposed by the proposed rule. These costs include expenditures that would be required in order to comply with the proposed rule (e.g., increased operating costs, such as the purchase of an AIS unit), or that would reduce revenues by directly limiting the level of activity in the industry (e.g., if a rule element were to result in an overall reduction in CWW activity in Washington’s inland waters). The following rule elements (as defined in Table 1) do not require additional expenditures on the part of the industry to operate CWW tours (i.e., no direct compliance costs). Additionally, while these rule elements would regulate the behavior of vessels around the Southern Residents (limiting proximity and timing of viewing), they do not directly restrict overall CWW activity levels in Washington for the following reasons.

- **Licensing:** The CWW licensing requirement and fees associated with licensing is already established in RCW 77.65.615. Therefore, the proposed rule's description of the CWW license requirement is in reference to an existing requirement and the proposed rule would not impose any additional costs.
- **Closed Areas:** The proposed rule would codify the existing, voluntary area closures off the west side of San Juan Island for motorized vessels, as well as the voluntary measure requiring non-motorized vessels to stay within 100 yards of shore in the area. The industry generally already complies with this rule element and, therefore, codifying these changes would not affect CWW activity levels.¹¹ For vessels that may not comply with the voluntary closures absent the proposed rule, codifying these closures would only limit CWW in this geographic area but not within Washington's inland waters more broadly. Therefore, these vessels would be able to redirect CWW activity to other areas.
- **Number of Boats:** Options A and B differ with respect to the number of vessels allowed to view the Southern Residents simultaneously. This rule element may affect the locations of CWW activities during some CWW tours but does not directly restrict broader CWW activity levels in Washington's inland waters. Specifically, this rule element would affect viewing only of Southern Residents, which represents a small fraction of overall CWW activity.¹² Under proposed rule Options A and B, CWW operators may therefore substitute viewing of other species for viewing Southern Residents to some level due to this rule element. This effect would likely be greater under Option B, as the limitations on number of vessels are more stringent under that option.
- **Days and Hours:** Options A and B differ with respect to timing restrictions on viewing Southern Residents. As with the restrictions on numbers of boats, this rule element only limits the timing of viewing Southern Residents but not whales and other marine mammals more broadly. Thus, CWW operations may substitute viewing of other species for viewing Southern Residents at this time. While there are differences between Options A and B with respect to the specific viewing times, as defined in Table 1, the total time (hours) available for viewing Southern Residents is relatively even.
- **Requirements for non-motorized vessels to raft up and avoid the path of Southern Residents (part of the proximity and position requirements for kayaks):** As described in Section 1.2, this rule element is presently implemented voluntarily under the KELP guidelines. Codifying this practice is therefore unlikely to affect levels of non-motorized whale watching.

¹¹ IEc (Industrial Economics, Inc.). 2020. Memorandum to the Washington Department of Fish and Wildlife, RE: Final Analysis of the Economic Viability of Commercial Whale Watching License Holders. August 20.

¹² IEc (Industrial Economics, Inc.). 2020. Memorandum to the Washington Department of Fish and Wildlife, RE: Final Analysis of the Economic Viability of Commercial Whale Watching License Holders. August 20.

Rule Elements Resulting in Direct Compliance Costs

Certain rule elements could increase costs of operating whale watch tours. Table 3 (Primary Motorized and Incidental Whale Watch Sectors) and Table 4 (Kayak Tour Sector) identify the estimated direct compliance costs associated with each relevant rule element. The only rule element that would result in more than *de minimis* direct costs is the requirement for use of AIS by motorized CWW vessels (i.e., the Primary Motorized and Incidental Whale Watch Sectors). The range of costs for AIS presented in Table 3 reflects differences in costs between Class A and Class B systems. We include the high end of the range, representing the costs of Class A systems, to capture uncertainty in costs, but expect that costs are likely to be toward the lower end of the range, reflecting the use of Class B systems.

Rule Elements Resulting in Revenue Impacts

If the proposed rule directly limits the level of activity in the industry (i.e., the number of tickets that can be sold), this may result in revenue impacts that should be considered in the context of this SBEIS. As described above, rule elements that limit viewing of Southern Residents only, or that limit the geographic area where CWW activity may occur, will not limit overall CWW activity because substitute viewing opportunities (both geographic and species-based) are available.

This analysis identifies one rule element for which compliance may directly limit activity levels. Specifically, restricting non-motorized vessels from launching if Southern Residents are within one-half nautical mile of the launch location, as required under both Option A and Option B, has the potential to reduce the number of kayak tours under certain conditions. Presence of Southern Residents is unpredictable, and it is therefore not possible to plan tour logistics around their presence. If launches must be delayed and relocation to an alternate launch location is not logistically possible, there is the potential that trips could be cancelled, resulting in decreased activity and reduced revenues for these businesses. However, given the relatively infrequent presence of Southern Residents in Washington's inland waters generally, tour launch delays are unlikely to occur frequently. Additionally, the existence of alternate launch sites may allow for tours to launch from other locations if tour operators are aware of the presence of the whales with sufficient notice to redirect a tour to an alternative launch. Overall, this analysis finds that it is uncertain whether the proposed rule may limit kayak tour activities due to the inclusion of this rule element but provides information on potential cost mitigation considerations in Section 2.5.

TABLE 3. DIRECT ANNUAL COMPLIANCE COSTS FOR PROPOSED RULE OPTIONS A AND B - PRIMARY MOTORIZED AND INCIDENTAL WHALE WATCH SECTOR

RULE ELEMENT	COST DESCRIPTION	ESTIMATED COST
AIS	Initial unit cost; installation; annual maintenance; user training.	\$3,400 - \$12,000 per business in the first year and \$650 per business annually thereafter ¹ Costs only incurred by businesses that do not currently use AIS.
Training	Staff time and travel expenses associated with viewing and refreshing training for responsible Southern Resident viewing.	<i>De minimis</i> additional cost. Training materials would be provided at no cost by WDFW, only license holders and alternate operators would be required to attend, and annual time commitment per staff person would not exceed a few hours. Multiple regional locations of training are not likely to require substantial travel expenditures.
Logs	Staff time associated with documentation and information transfer to WDFW.	Primary Motorized WW. <i>De minimis</i> additional cost. Documentation includes information already collected as a matter of course during tours, and effort to transfer data to WDFW would be minimal. Although the cost of Option B is somewhat higher than Option A due to frequency of reporting, costs are considered <i>de minimis</i> under both rule options.
		Incidental WW. <i>De minimis</i> additional cost. Documentation does not require that substantial information be collected, effort to transfer data to WDFW would be minimal, and requirement is not likely to be triggered frequently given limited presence of Southern Residents in Washington's inland waters. Although the cost of Option B is somewhat higher than Option A due to frequency of reporting (i.e., Option B has fewer timing restrictions for viewing Southern Residents), the per-trip level of effort required for logging is very limited. Thus, the costs would be <i>de minimis</i> under both Options.
Real-Time Reporting	Time associated with collating and communicating information to WRAS.	Primary Motorized WW. <i>De minimis</i> additional cost. Requirements to report Southern Resident sightings would not require substantive additional effort beyond what is undertaken for current practices. ²
		Incidental WW. <i>De minimis</i> additional cost. Does not require new equipment, minimal time commitment.
Notes:		
1. Unit cost (2020\$) approx. \$3,537 for Class A and \$750 for Class B. Installation = \$1,061/unit for Class A and \$225/unit for Class B; Training = \$110/user; Annual O&M = \$250 annually/device. Assumes 2.6 vessels and three staff requiring training per business. (www.westmarine.com ; USCG (2014)).		
2. Personal communication with PWWA staff on June 5, 2020 and June 16, 2020.		

TABLE 4. DIRECT ANNUAL COMPLIANCE COSTS - KAYAK TOUR SECTOR

RULE ELEMENT	COST DESCRIPTION	ESTIMATED COST	
		OPTION A	OPTION B
Training	Staff time and travel expenses associated with viewing and refreshing training for responsible Southern Resident viewing.	<i>De minimis</i> additional cost. Training materials would be provided at no cost by WDFW, only license holders and alternate operators would be required to attend, and annual time commitment per staff person would not exceed a few hours. Multiple regional locations of training are not likely to require substantial travel expenditures.	
Logs	Staff time associated with documentation and information transfer to WDFW.	<i>De minimis</i> additional cost. Documentation does not require that substantial information be collected, effort to transfer data to WDFW would be minimal, and requirement is not likely to be triggered frequently given limited presence of Southern Residents in the Washington's inland waters. Although the cost of Option B is somewhat higher than Option A due to frequency of reporting, costs are considered <i>de minimis</i> under both rule options.	

2.3 ASSESSMENT OF MINOR COST

For the Primary Motorized Whale Watch sector, the rule element requiring use of AIS, under both rule Option A and Option B, would present a cost that could be more than minor (\$3,400 - \$12,000 per business in the first year and \$650 per year after that). The Primary Motorized Whale Watch sector has a weighted average minor cost threshold of \$3,300, and both the high- and low-end estimated costs for implementation of AIS exceed that threshold. Larger businesses in this sector are already required to have AIS per the requirements of 33 CFR §164.46, and would not incur costs associated with this rule element.¹³ For the smaller businesses, average per business revenues are approximately \$840,000. Accordingly, the 0.3 percent minor cost threshold identifies that costs above \$2,500 would constitute more than a minor cost to these smaller businesses. Thus, the costs of AIS would exceed the minor cost threshold. Importantly, information provided by the industry suggests that not all businesses would incur these costs, as some portion of the U.S.-based Primary Motorized Whale Watch sector (approximately 50 percent) already uses AIS, and 100 percent of the Canadian-based CWW fleet are already required to carry AIS.^{14,15}

¹³ 33 CFR §164.46 requires that all vessels greater than 65 feet in length engaged in commercial service, and all self-propelled vessels certified to carry more than 150 passengers, must have on board an operational Class A AIS device.

¹⁴ Personal communication with PWWA representatives on June 5, 2020.

¹⁵ Regulations Amending the Navigation Safety Regulations (Automatic Identification Systems): SOR/2019-100. Accessed September 11, 2020, <http://www.gazette.gc.ca/rp-pr/p2/2019/2019-05-01/html/sor-dors100-eng.html>.

For the Incidental Whale Watch sector, the costs associated with AIS would also exceed the minor cost threshold for the sector. However, some portion of the sector likely already employs AIS as required by 33 CFR §164.46 and would not incur these costs.

The results of the minor cost assessment for the Primary Motorized and Incidental Whale Watch sectors are summarized in Table 5.

TABLE 5. RULE COSTS - PRIMARY MOTORIZED AND INCIDENTAL WHALE WATCH SECTOR

RULE ELEMENT	COST DESCRIPTION	DOES ELEMENT INTRODUCE MORE THAN MINOR COSTS?	
		OPTION A	OPTION B
AIS	Initial unit cost; installation; annual maintenance; user training.	Primary Motorized WW - Yes, for smaller businesses. No, for larger businesses.	
		Incidental WW - Yes	
Training	Staff time and travel costs associated with initial and refreshing training for responsible Southern Resident viewing.	Primary Motorized WW - No	
		Incidental WW - No	
Logs	Staff time associated with documentation and information transfer to WDFW.	Primary Motorized WW - No	Primary Motorized WW - No
		Incidental WW - No	Incidental WW - No
Real-Time Reporting	Time associated with collating and communicating information to WRAS.	Primary Motorized WW - No	
		Incidental WW - No	
Notes:			
1. Unit cost (2020\$) approx. \$3,537 for Class A and \$750 for Class B. Installation = \$1,061/unit for Class A and \$225/unit for Class B; Training = \$110/user; Annual O&M = \$250 annually/device. Assumes 2.6 vessels and three staff requiring training per business. (www.westmarine.com ; USCG (2014)).			
2. Personal communication with PWWA staff on June 5, 2020 and June 16, 2020.			

For non-motorized vessels, the rule element restricting tour launches when Southern Residents are within one-half nautical mile of the launch has the potential to result in lost revenues resulting from decreased activity. However, as noted above, this result appears unlikely (Table 6).

Options for mitigating these and other potential rule costs are discussed in Section 2.5.

TABLE 6. RULE COSTS - KAYAK TOUR SECTOR

RULE ELEMENT	COST DESCRIPTION	DOES ELEMENT INTRODUCE MORE THAN MINOR COSTS?	
		OPTION A	OPTION B
Training	Staff time and travel costs associated with initial and refreshing training for responsible Southern Resident viewing.	No	
Logs	Staff time associated with documentation and information transfer to WDFW.	No	No
Launch Restrictions	Potential lost revenue associated with cancellations and delays resulting from restricting tour launches when Southern Residents are within one half nautical mile of the launch.	Uncertain	

2.4 DISPROPORTIONATE ECONOMIC IMPACT ANALYSIS

When a proposed rule would 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 rule to determine whether the costs are considered disproportionate.¹⁶ Because all businesses engaged in CWW in Washington’s inland waters qualify as “small businesses”, the proposed rule affects only small businesses.

2.5 COST MITIGATION STRATEGIES

In accordance with RCW 19.85.030(3), WDFW is considering all mitigation options to reduce potential costs that the CWWLP rule might impose on the small businesses that make up the CWW industry in Washington’s inland waters. Specifically, WDFW is considering all of the following types of mitigation described in RCW 19.85.030(2), as relevant to this proposed rule, including:

- Reducing, modifying, or eliminating substantive regulatory requirements;
- Simplifying, reducing, or eliminating recordkeeping and reporting requirements;
- Reducing the frequency of inspections;
- Delaying compliance timetables;
- Reducing or modifying fine schedules for noncompliance; or

¹⁶ 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)).

- Any other mitigation techniques including those suggested by small businesses or small business advocates.

These mitigation options are described in the following sub-sections.

In considering mitigation options, WDFW must also ensure the rule meets the requirements of RCW 77.65.620, which mandates that WDFW promulgate a CWWLP rule and requires that “the rules must be designed to reduce the daily and cumulative impacts on southern resident orca whales and consider the economic viability of license holders.”

Cost Mitigation Integrated into the Proposed Rule

In developing this proposed rule, WDFW and the CWWLP Advisory Committee (Advisory Committee) considered the individual and cumulative cost of the potential rule elements and their economic impact on the industry.¹⁷ In particular, WDFW designed the following rule elements to alleviate their costs to the CWW industry:

- Delaying implementation of the AIS requirement until 2022: The delay in this requirement is based on feedback from the industry that the cost would be a burden in the near term due to the substantial impact of the COVID-19 pandemic on the industry.
- Requiring AIS for motorized vessels only: The WDFW responded to information from the kayak industry that AIS technology is uncommon for kayaks and that the cost could be substantial.
- Limiting viewing restrictions to viewing of Southern Residents rather than introducing limits on CWW activity more broadly: The day and hour restrictions specifically limit viewing Southern Residents but do not limit all CWW activities, allowing CWW activity to be shifted to other species during times when Southern Residents may not be viewed.

Potential Additional Mitigation for Proposed Rule Costs

While WDFW considered ways to minimize the potential costs of the rule on the regulated industry, this analysis does find that the proposed rule could result in costs to the industry as described in Tables 3 and 4 and that these costs are more than minor. This analysis therefore describes additional potential cost mitigation strategies in Table 7. The cost mitigation strategies do not vary between Option A and Option B of the proposed rule. WDFW has identified several potential cost mitigation strategies aimed at reducing the direct compliance costs of the AIS requirement. Strategies include sharing the cost of the units through grant funding or delaying the requirement where financial hardship is demonstrated. Although training, log, and real-time reporting requirement costs are anticipated to be *de minimis*, WDFW has identified options for leveraging existing reporting systems and reducing the need for travel that would further reduce these costs.

¹⁷ IEc (Industrial Economics, Inc.). 2020. Memorandum to the Washington Department of Fish and Wildlife, RE: Final Analysis of the Economic Viability of Commercial Whale Watching License Holders. August 20.

WDFW has also identified potential cost mitigation strategies to reduce costs associated with the kayak tour launch delay requirement, should this requirement result in reduced activity levels and costs to small businesses (which is uncertain). Potential mitigation strategies include narrowing the definition of when kayak tours must delay launches or allowing launches to commence if Southern Residents are present for longer than 30 minutes.

As previously noted, WDFW is required to weigh these potential mitigation strategies against the requirements of RCW 77.65.620 to ensure sustainable CWW practices that reduce the daily and cumulative impacts of vessel noise and disturbance on Southern Residents.

TABLE 7. COST MITIGATION STRATEGIES FOR RULE ELEMENTS

RULE ELEMENT	APPLICABILITY	POTENTIAL MITIGATION STRATEGIES
AIS	Motorized Vessels	<ul style="list-style-type: none"> Share costs of AIS with license holders through grants to reduce cost of AIS incurred by small businesses. Consider further delay of AIS requirement on a business by business basis based on demonstrated financial hardship.
Training	Motorized Vessels and Kayak Tours	<ul style="list-style-type: none"> Provide stipend for travel costs associated with initial training to reduce cost of training to small businesses. Allow annual training refresher requirements to be met through online course to eliminate costs associated with travel.
Logs	Motorized Vessels and Kayak Tours	<ul style="list-style-type: none"> Leverage the existing PWWA record keeping application and methods to meet log requirements, reducing or eliminating the need for operators to duplicate efforts by keeping a separate log and submitting data to WDFW.
Real-Time Reporting	Motorized Vessels	<ul style="list-style-type: none"> Leverage the existing PWWA reporting application to meet real-time reporting requirements, reducing or eliminating the need for operators to separately provide real-time data to WRAS.
Launch Restrictions	Kayak Tours	<ul style="list-style-type: none"> Prohibit launch only when Southern Residents are actively moving toward the launch zone, narrowing the conditions under which launches must be delayed. Limit launch delay to 30 minutes, and if Southern Residents are still present, stagger launches of individual tour groups at 30 minute intervals thereafter to prevent indefinite delays in tour launches.

2.6 INVOLVEMENT OF SMALL BUSINESSES IN RULE-MAKING PROCESS

WDFW developed the proposed CWWLP rule with guidance from the Advisory Committee, a group that includes stakeholders representing businesses in the whale watching industry, and considering public comment offered by industry representatives. Advisory Committee membership includes representatives from the Pacific Whale Watch Association (PWWA), as well as individual businesses representing each of the three industry sectors affected by the rule, all of which are identified as small businesses. WDFW convened the Advisory Committee in December 2019. From January to July 2020, the Advisory Committee explored alternatives and worked towards consensus around a suite of possible CWWLP rules. In May 2020, industry representatives participated in a stakeholder workshop hosted by the Washington State Academy of Sciences (WSAS), and between July and October 2020 WDFW met regularly with industry representatives to discuss development of the proposed rule. Industry representatives also participated in Advisory Committee meetings as members of the public and provided public comment to the Advisory Committee. Additionally, industry representatives had an opportunity to review and provide public comments on the pre-filed draft of the proposed rule on October 7 and October 8. As such, representatives of the affected small businesses have been involved throughout the rulemaking process.

The State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) process has also provided an opportunity for stakeholders, including the small businesses affected by the proposed rule, to provide feedback and information relative to the impact of alternative CWW restrictions. Specifically, the scoping process required under Washington Administrative Code (WAC) 197-11-440 has ensured public input into rule development, and has included the following key steps:

- A scoping notice was sent to approximately 150 individuals and interested groups in May 2020.
- A virtual scoping public meeting was held on May 28, 2020.
- 165 people commented during the scoping period, which occurred from May 18, 2020 to June 8, 2020; a summary of the comments is available on WDFW's website at https://wdfw.wa.gov/sites/default/files/2020-07/final_cww_eis_scoping_report_070220.pdf.

2.7 JOBS CREATED OR LOST

Employment in the affected industry includes both permanent and seasonal employees. Across the three sectors comprising the affected industry, estimated employment in 2019 was 260.^{18,19} RCW 19.85.040(2)(d) requires that an SBEIS must estimate the number of jobs created or lost as a result of compliance with the proposed rule. Compliance with the

¹⁸ Total employment reported for U.S.-based businesses, and includes both full-time and seasonal jobs. Employment estimate for the Primary Motorized Whale Watch sector and Incidental Whale Watch sector based on average employment per business provided by the Washington Department of Revenue and email communication with a PWWA member company on July 13, 2020.

¹⁹ According to the PWWA, the COVID-19 pandemic has resulted in 2020 employment by U.S.-based PWWA members being 80 percent below typical seasonal levels (Email communication from PWWA to IEc on June 5, 2020).

rule is not anticipated to result in job creation or loss. Because overall CWW activity levels in the region are not anticipated to be affected by the proposed rule, the rule requirements would not result in a need for additional or less labor for continuing CWW operations. If requirements for launch delays in the kayak tour sector result in decreased activity, there is the potential for job loss in that sector. However, as noted above, this outcome is uncertain.

Rule compliance is unlikely to require hiring of specialized staff beyond those currently employed in the industry given the only increased labor required for compliance are the de minimis time for logging and reporting requirements.

REFERENCES

- IEc (Industrial Economics, Inc.). 2020. Memorandum to the Washington Department of Fish and Wildlife, RE: Final Analysis of the Economic Viability of Commercial Whale Watching License Holders. August 20.
- ORIA. 2019. Regulatory Fairness Act Support. Accessed July 31, 2020 at: https://www.oria.wa.gov/site/alias__oria/934/regulatory-fairness-act-support.aspx.
- Transport Canada. 2019. Regulations Amending the Navigation Safety Regulations (Automatic Identification Systems): SOR/2019-100. Accessed September 11, 2020, <http://www.gazette.gc.ca/rp-pr/p2/2019/2019-05-01/html/sor-dors100-eng.html>.
- USCG (United States Coast Guard). 2014. Vessel Requirements for Notices of Arrival and Departure and Automatic Identification System: Final Regulatory Analysis and Final Regulatory Flexibility Analysis for the Final Rule. USCG-2005-21869, RIN 1625-AA99
- Washington Attorney General Office. 2019. Small Business Economic Impact Statements – Frequently Asked Questions. Accessed July 31, 2020 at: https://www.oria.wa.gov/Portals/_oria/VersionedDocuments/RFA/Regulatory_Fairness_Act/DRAFT_SBEIS_FAQ.pdf.