

Programmatic Environmental Impact Statement

Commercial Whale Watching Licensing Program



Prepared for Washington Department of Fish and Wildlife

December 11, 2020

Fact Sheet

Title: Final Programmatic Environmental Impact Statement (FEIS) for the Commercial Whale Watching Licensing Program for Washington

Description: This is a non-project or programmatic review proposal. In spring 2019, the Washington Legislature (via RCW 77.65.620) directed the Washington Department of Fish and Wildlife (WDFW) to establish a license process for commercial whale watching of Southern Resident Killer Whales (SRKWs) in Washington inland marine waters (including Puget Sound, the Strait of Juan de Fuca, and inside the international boundary line between Washington and British Columbia) and adopt rules for commercial whale-watching license holders. The purpose of establishing regulations for licensing commercial whale watching vessels is to reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered SRKWs and consider the economic viability of commercial whale watching license holders.

The FEIS analyzes thirteen components WDFW could consider in its rulemaking process to reduce vessel noise and disturbance impacts to SRKWs and describes an iteration of each component in four alternatives, including a No Action Alternative (Status Quo). The alternatives are designed to present feasible options for decision makers and identify probable significant adverse environmental impacts associated with each option; they represent a range of options that will allow WDFW to evaluate and compare the merits of different choices. The final action chosen by WDFW may not be identical to any single alternative; it may be a hybrid action that combines different alternative components.

A determination of significance and request for comments on the scope of the EIS was issued May 18, 2020, and one public scoping meeting was held virtually on May 28, 2020. A draft programmatic EIS (DEIS) was published on September 23, 2020. There was a 30-day public comment period for the DEIS, which included one virtual public meeting on October 19, 2020. The FEIS reflects input provided during both public comment periods.

Location: Washington inland marine waters (including Puget Sound, the Strait of Juan de Fuca, and inside the international boundary line between Washington and British Columbia)

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Permits and Licenses Required: None required.

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WDFW has also had the assistance of an Advisory Committee, informed by an Independent Science Panel, in developing its rulemaking proposal. These efforts also informed this FEIS.

- **Commercial Whale Watching Licensing Program Advisory Committee:** In November 2019, WDFW convened 11 citizens to develop new rules and processes for the commercial whale watching licensing program.
- **Washington State Academy of Sciences Independent Science Panel:** The science panel is comprised of seven scientists to provide a scientific and technical review of the best available science about disturbance and noise impacts to SRKWs.

Date of Issue: December 11, 2020

Date Final Action is Planned: The Commercial Whale Watching Licensing Program rulemaking proposal will be provided to the WDFW Commission for action on December 18, 2020. If adopted, the Program will be implemented in January 2021.

Availability: Notice of the availability of this FEIS is posted on the WDFW SEPA website at <https://wdfw.wa.gov/licenses/environmental/sepa/open-comments> and notification has been emailed to local government planning departments (city and county), affected Tribes, state and federal agencies with jurisdiction, and interested parties. The FEIS is posted at <https://wdfw.wa.gov/licenses/environmental/sepa/closed-final> and <https://wdfw.wa.gov/about/advisory/cwwlp>.

Individuals who need to receive this information in an alternative format or language, or who need reasonable accommodations to participate in WDFW-sponsored public meetings or other activities may contact Dolores Noyes at (360-902-2349), or TTY 771, or email (dolores.noyes@dfw.wa.gov). For more information https://wdfw.wa.gov/accessibility/reasonable_request.html.

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Acronyms and Abbreviations

AIS	automatic identification system
CWW	commercial whale watching
CWWLP	Commercial Whale Watching License Program
DEIS	draft programmatic environmental impact statement
EIS	environmental impact statement
ESA	Endangered Species Act
FEIS	final programmatic environmental impact statement
KELP	Kayak Education & Leadership Program
Legislature	Washington State Legislature
PWWA	Pacific Whale Watch Association
SEPA	State Environmental Policy Act
Southern Resident	southern resident killer whale
SRKW	southern resident killer whale
WDFW	Washington Department of Fish and Wildlife
WRAS	WhaleReport Alert System
WSAS	Washington State Academy of Sciences



Executive Summary

In 2019, the Washington Department of Fish and Wildlife (WDFW) was directed by the Washington State Legislature (Legislature) to develop a licensing program and rules for commercial whale watching. The purpose of establishing regulations for licensing commercial whale watching vessels is to reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident Killer Whales (SRKWs or Southern Residents) and consider the economic viability of commercial whale watching license holders. The final programmatic environmental impact statement (FEIS) evaluates action alternatives by examining all areas of probable significant adverse environmental impact.

Background

The SRKWs 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. In the winter, they are typically in the coastal waters of the Pacific Ocean between California and British Columbia. Federal and Washington State laws list SRKWs as endangered. Vessels, including commercial whale watching vessels, create noise and disturbance that can elicit behavioral disruptions such as reduced foraging behaviors, changes in swimming patterns, increased surface-active behaviors, and, along with other stressors, this can threaten their viability in Washington waters.

The licensing program is considered a “non-project action” under the State Environmental Policy Act (SEPA). Non-project actions include the adoption of plans, policies, programs, or regulations containing standards that will guide future actions. The FEIS analysis of significant environmental impacts on SRKWs is based on the best-available science resources identified by an independent panel of the Washington State Academy of Sciences (WSAS). The FEIS incorporates recommendations and suggestions from public comments submitted during the initial scoping process and during the draft programmatic environmental impact statement (DEIS) comment period, and the Commercial Whale Watching Licensing Program (CWWLP) Advisory Committee recommendations.

Alternatives Considered

The FEIS evaluates four alternatives for a commercial whale watching licensing program in Washington, including a No Action Alternative. The alternatives provide a comprehensive range of restrictions for commercial whale watching (CWW) activity and anticipated benefits to SRKWs. All benefits associated with alternatives are relative to the No Action Alternative, which reflects the current CWW status which does not include regulations other than those already in place for all Washington vessels. The final action chosen by WDFW may not be identical to any single alternative; after reviewing the results of the FEIS, WDFW may choose a hybrid that combines more and less restrictive expressions of the alternatives to best meet its legislative mandate.

Alternative 1 would reduce SRKWs' exposure to CWW vessel noise and disturbance the most out of all the alternatives and would likely result in the most benefits to SRKWs. However, it would place the most extreme restrictions on CWW operations. Alternative 1 captures the most restrictive actions that WDFW could choose because it includes zero in all of its component ranges, which would eliminate CWW impacts on SRKWs and all marine life. Alternative 1 contains the following components:

- *Days/Hours of CWW and SRKW Viewing:* In this alternative, all CWW operations would be restricted seasonally for a period of 8 to 11 months by limiting all CWW operations to a 0- to 4-hour per day window and to 0 to 2 days per week. During the other 2 to 4 months of the year, SRKW viewing only (not CWW operations overall) would be limited to a 0- to 4-hour per day window and to 0 to 2 days per week.
- *Vessels, Time, and Locations for SRKW Viewing:* In this alternative, 0 to 2 CWW vessels would be allowed to view SRKWs at a time; CWW vessels (not including kayaks) would be limited to spending 0 to 15 minutes in the vicinity of SRKWs; and multiple geographic areas would be closed to CWW (except for safety reasons). The closed geographic areas would include the west side of San Juan Island (the current voluntary no-go zone that SRKWs frequently use for foraging), and other agreed upon geographic areas. Any of these limitations could be implemented on a seasonal basis for 8 to 11 months or year-round.
- *Sonar/echolocation:* In this alternative, CWW vessels that have sonar or echolocation devices would be required to turn those devices off, to standby, or tune them to 200 kHz mode when in the vicinity of SRKWs, unless there are safety concerns that require their use.
- *Reporting:* CWW operators would be required to report on the presence and location of SRKWs and/or provide documentation of their observations of SRKWs, such as logs of SRKW sightings, viewing, and other on-the-water observations.
- *Non-motorized vessels:* In addition to meeting the requirements that apply to all CWW operators, non-motorized vessels such as kayaks or standup paddleboards would be required to adhere to some or all of the voluntary Kayak Education & Leadership Program (KELP) best practices, which provide a code of conduct for paddlers to assist in compliance with federal vessel regulations, as well as other restrictions.
- *Use of an automatic identification system (AIS):* AIS is a tracking system that uses transceivers to provide information such as vessel identification, position, course, speed, and navigational status. Under Alternative 1, all CWW vessels, both motorized and non-motorized, would be required to have AIS installed and turned on when operating tours. Tours with non-motorized

vessels, such as kayaks, can meet this requirement by having AIS installed on one vessel per tour.

Alternative 2 includes moderate limitations on commercial whale watching to reduce potential noise and disturbance impacts on SRKWs. It contains the following components:

- *Days/Hours of CWW and SRKW Viewing:* In this alternative, all CWW operations, including SRKW viewing, would be restricted seasonally for a period of 4 to 7 months by limiting CWW operations to a 4-to 8-hour per day window and to 3 to 5 days per week. WDFW may decide to implement the SRKW-viewing limitations either year-round or for 4 to 7 months.
- *Vessels, Time, and Locations for SRKW Viewing:* In this alternative, 3 to 4 CWW vessels would be allowed to view SRKWs at a time; CWW vessels (not including kayaks) would be limited to spending 16 to 45 minutes in the vicinity of SRKWs; and multiple geographic areas would be closed to CWW (except for safety reasons). The closed geographic areas would include the west side of San Juan Island (the current voluntary no-go zone that SRKWs frequently use for foraging), and at least one other agreed upon geographic area. Any of these limitations could be implemented on a seasonal basis for 4 to 7 months instead of year-round.
- *Reporting:* CWW operators would be required to report SRKW locations to WDFW when private recreational vessels are observed in the presence of SRKWs (e.g., when 1 or more private recreational vessels are in the vicinity or only when larger groups of private recreational vessels are in the vicinity).
- *Non-motorized vessels:* In addition to meeting the requirements that apply to all CWW operators, kayak tours would need to adhere to some, or all, of the voluntary KERP best practices outlined in the Kayaker Code of Conduct.
- *Use of AIS:* All motorized CWW vessels would be required to have AIS installed and turned on when operating tours, regardless of whether they are viewing SRKWs or not.

Alternative 3 is a less restrictive set of limitations on commercial whale watching and could potentially reduce noise and disturbance impacts to SRKWs. This alternative includes more restrictions on commercial whale watching than the status quo. It contains the following components:

- *Days/Hours of CWW and SRKW Viewing:* In this alternative, all CWW including SRKW viewings operations would be restricted seasonally for a period of 1 to 3 months by limiting CWW operations to 6 days per week and operating hours to the period from 1 to 2 hours after sunrise to 1 to 2 hours before sunset. WDFW may decide to implement the SRKW-viewing limitations either year-round or for 1 to 3 months.
- *Vessels, Time, and Locations for SRKW Viewing:* In this alternative, 5 to 10 CWW vessels would be allowed to view SRKWs at a time; CWW vessels (not including kayaks) would be limited to spending 46 to 60 minutes in the vicinity of SRKWs; and the west side of San Juan Island would be closed to CWW. Any of these limitations could be implemented on a seasonal basis for 1 to 3 months instead of year-round.
- *Reporting:* In this alternative, CWW operators would only need to report emergency situations (e.g., SRKW health or injury problems, or incidents resulting in “take”); no other reporting on SRKW presence, location, and/or on the water behavior would be required.

Alternative 4, or the No Action Alternative, reflects the current CWW status which does not include regulations other than those already in place for all Washington vessels. The No Action Alternative provides a baseline for comparing the potential impacts and mitigation needs associated with any action WDFW takes in implementing rules for commercial whale watching.

- *Days/Hours of CWW and SRKW Viewing:* In this No Action Alternative, there are no existing limits on what seasons, days, and/or hours of the day that commercial whale watching operators may operate, or the hours/times that they may view SRKWs. Currently, the number of vessels around orcas varies during the season, and the peak number of vessels can be much higher than the annual average. In 2019, the highest number of vessels around orcas occurred in July, when there were as many as 26 private recreational vessels, 18 motorized CWW vessels, and 13 kayaks. Most CWW trips for U.S.-based PWWA members currently occur between 9:00 AM and 6:00 PM, but some operators offer evening or sunset tours that last as late as 9:30 PM.
- *Vessels, Time, and Locations for SRKW Viewing:* In this alternative, there are no limits on the number of vessels or mandatory limits on SRKW viewing time, but vessels follow best practices for amount of time. PWWA’s best practice is 60 minutes unless there are more than 9 vessels within 1 km, in which case best practice is 30 minutes. Be Whale Wise guideline limits viewing time to 30 minutes. This alternative does not have any restricted areas but the Be Whale Wise and PWWA best practices still stand.
- *Sonar/echolocation:* In this alternative, there are no requirements, but vessels may follow PWWA best practices to turn off sonar and echolocation devices when in the vicinity of SRKWs.
- *Reporting:* There are no current requirements for reporting information related to SRKWs. Some CWW operators voluntarily report SRKW presence and location to WDFW Enforcement, Soundwatch, and/or the WhaleReport Alert System.
- *Non-motorized vessels:* In this alternative, there are no kayak-specific regulations except for the voluntary KELP best practices.
- *Use of AIS:* Currently, approximately 50% of the Primary Motorized Whale Watch fleet have AIS installed per US Coast Guard requirements for vessels 65 ft and above.¹ However, there are no CWW-specific requirements related to AIS use.

Adaptive Management

Adaptive management is a systematic approach for improving resource management by learning from management outcomes, and it is an important cross-cutting component of EIS alternatives. WDFW is committed to developing an adaptive management strategy that will allow the CWWLP to adapt to new information about the status of SRKWs and the effectiveness of the CWWLP as it becomes available through monitoring and evaluation. The strategy will be in place when the CWWLP is implemented, and WDFW will complete an analysis and report to the governor and the Legislature on the effectiveness of and any recommendations for changes to the whale watching rules by November 30, 2022, and every two years thereafter until 2026. Any significant changes to the nature and extent of the CWWLP rules as

¹ Personal communication with Kelley Balcomb-Bartok and Jeff Friedman, Pacific Whale Watch Association on June 5, 2020, as cited in Industrial Economics, Inc. (IEC), “Economic Viability”, 19.

a result of adaptive management, including any potential changes to components in the final action, would likely be made during this review cycle.

Summary of Impacts

The final rules WDFW implements for the CWWLP—its final action—must reduce the daily and cumulative impacts of CWW vessel noise and disturbance on SRKWs and consider the economic viability of commercial whale watching license holders. Table ES-1 summarizes the conclusions of the analysis of anticipated environmental impacts. In the alternative analysis, benefits and adverse impacts are identified in relation to Alternative 4, the No Action Alternative, which is associated with the most significant adverse impacts.

The FEIS recommends that WDFW select components from multiple alternatives to both support sustainable commercial whale watching opportunities and reduce daily and cumulative impacts on commercial whale watching from vessel noise and disturbance.

Table ES-1: Summary of Significant Impacts of Alternatives

Alternative	Animals (Impacts to SRKWs)	Recreation (Impacts to Recreators and CWW Opportunities)	Summary
1	Least significant adverse impacts (most benefits for SRKWs) due to most restrictive SRKW viewing limitations and broadest area closures	Most significant adverse impacts due to most restrictive day, time, and area limits on CWW operations; Other components are not expected to have a significant impact on CWW opportunities or participant experience	Alternative 1 has the highest potential to reduce adverse impacts on SRKWs (most conservation benefits). Restrictions on CWW operating days/times would reduce CWW opportunities for recreators the most of any alternative.
2	Some significant adverse impacts (moderate benefits for SRKWs) due to moderate SRKW-viewing limitations and moderate area closures	Some significant adverse impacts due to mid-range day, time, and area limits on CWW operations; Other components are not expected to have a significant impact on CWW opportunities or participant experience	Alternative 2 has less potential to reduce adverse impacts on SRKWs than the restrictions in Alternative 1, but more than Alternatives 3 and 4. Restrictions on CWW operating days/hours would reduce opportunities for recreation more than in Alternatives 3-4, but not as much as Alternative 1.
3	More significant adverse impacts (fewest benefits for SRKWs) due to least restrictive SRKW-viewing limitations and fewest area closures	Least significant adverse impacts due to least restrictive day and time limits on CWW operations; Other components are not expected to have a significant impact on CWW opportunities or participant experience	Restrictions may or may not sufficiently reduce adverse impacts to SRKWs, especially given uncertainty and similarity of the alternative to no action (Alternative 4)
4: No Action	Most significant adverse impacts (no benefits for SRKWs) due to unrestricted CWW operation and activity	No impacts to CWW opportunities or participant experience	No changes to current conditions, and therefore no change in impacts to SRKWs from CWW or change in opportunities for recreators.

Mitigation Measures

Mitigation measures are actions that can supplement the environmental benefits associated with all alternatives (in the case of the No Action Alternative, mitigation measures could reduce the associated adverse environmental impacts). The mitigation measures below are intended to further decrease the daily and cumulative impacts of vessel noise and disturbance on SRKWs and promote their overall wellbeing, either directly or indirectly. WDFW is considering and may implement the following mitigation measures along with the final action:

The influence of commercial whale watching vessels on private recreational boaters: There is currently little published empirical evidence of the influence, including potential sentinel and/or magnet effects, of CWW vessels on the behavior of private recreational vessels. However, WDFW could evaluate the extent and ways in which CWW vessels may affect private recreational vessel behavior and how this could factor into the CWWLP. For example, if peer-reviewed research indicates that CWW operator presence and/or actions such as using whale warning flags contribute to changes in recreational boater activity that alter vessel noise and disturbance impacts on orcas, WDFW could consider adjusting CWW vessel limits as part of its adaptive management program. The FEIS notes that there is anecdotal evidence of both the sentinel and magnet effect but due to insufficient scientific evidence, WSAS Science Panel urges caution and to consider every interaction as an opportunity to disturb SRKWs.

The role of commercial whale watching vessels in monitoring and communicating SRKW status: CWW operators spend time in the vicinity of SRKWs and are familiar with their behavior patterns. Operators can contribute to SRKW management and data collection by identifying and reporting health or injury concerns or communicating animal status to researchers. These monitoring and communications activities go beyond the specific reporting requirements that are in the FEIS alternatives. Similar to the influence of CWW on private recreational vessels, this mitigation measure will be considered as part of WDFW's adaptive management program and evaluated over time.

SRKW Education: Education is essential to promoting compliance with any new regulations and achieving a reduction in vessel impacts to the whales. SRKW and other marine mammal education programs already exist and play an integral role in reducing disturbance from all types of vessels. Two additional education-based mitigation measures that could enhance conservation are: 1) SRKW-viewing qualification program that would require CWW operators to demonstrate knowledge of SRKWs and information needed to comply with CWWKP rules and 2) an SRKW curriculum for members of the public and CWW clientele to increase awareness of SRKWs and how to contribute to their recovery.

Public Engagement and Changes Made for the Final EIS

Following the publication of the DEIS on September 23, 2020, there was a 30-day public comment period, during which reviewers had the opportunity to comment on the accuracy and completeness of the environmental analysis, the methodology used in the analysis, and the need for additional information and/or mitigation measures, so that improvements to the DEIS could be made before its finalization.

The public comment period included a 2-hour virtual public meeting on Monday, October 19, 2020, from 6:00PM to 8:00PM PDT. This meeting provided an additional opportunity for members of the public to share comments on the DEIS.

The FEIS on the Commercial Whale Watching Licensing Program includes edits made to the DEIS based on public comments, and a comprehensive list of all public comments received during the public comment period. The FEIS reader should note the SEPA EIS process parallels (and was precipitated by and meant to inform) Washington's rulemaking process, which requires WDFW to draft and ultimately file final rules with the State's Code Reviser. The Fish and Wildlife Commission will decide on a final rule for the CWWLP on December 18, 2020. The CWWLP will likely become effective 31 days after it is filed with the Code Reviser and published in the Register.



I. Introduction

In spring 2019, the Washington Legislature directed the Washington Department of Fish and Wildlife (WDFW) to establish a license program and rules for commercial whale watching of southern resident killer whales (SRKWs, or Southern Residents) in Puget Sound, the Strait of Juan de Fuca, and Southern Georgia Strait (see Appendix A for the authorizing legislation, RCW 77.65.620).

The SRKWs 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. SRKWs 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 waters.

Purpose and Need for a Commercial Whale Watching License Program

The purpose of creating a new licensing program and establishing regulations for commercial whale watching license holders and vessel behavior is to reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered SRKWs and consider the economic viability of commercial whale watching (CWW) license holders. The Commercial Whale Watching Licensing Program (CWWLP, or licensing program) is intended to help protect the Endangered Species Act-listed SRKWs from disturbance, risk, and noise from vessel traffic—one of five threats identified by the Orca Task Force in 2018-19, along with lack of prey, toxic contaminants, human population growth, and climate change.

In developing this program, WDFW is also considering potential impacts on two specific recreational aspects of commercial whale watching: 1) recreators, i.e., customers who choose to participate in commercial whale watching and 2) the economic viability of commercial whale watching license holders. The recreators aspect is explored in this final programmatic environmental impact statement (FEIS) and the economic viability of commercial whale watching license holders is analyzed in the Economic Viability Analysis (IEc 2020). The Economic Viability Analysis addresses specific questions, including “In

what ways could the proposed rule options affect CWW license holders?” and is publicly available on the WDFW website.

CWWLP Advisory Committee

WDFW is developing the CWWLP rules with guidance from the **CWWLP Advisory Committee**, a group that includes stakeholders from the whale watching industry and environmental non-governmental organizations. WDFW convened the Advisory Committee in November 2019. From January to July 2020, the Advisory Committee explored alternatives and worked towards consensus on a proposal for licensing program rules. Two additional groups support WDFW and the work of the Advisory Committee (see Appendix B for more information about all three groups):²

- **An Intergovernmental Coordination Group**, which includes state, tribal, federal, and local governmental representatives that is providing information about the implementation feasibility of options explored by the Advisory Committee; and
- **An independent Washington State Academy of Sciences Science Panel** reviewed the current body of best available science regarding impacts to SRKWs from small vessels and commercial whale watching due to disturbance and noise.

While the CWWLP Advisory Committee did not reach consensus on a single set of recommendations for CWWLP rules, the members coalesced around two proposals for WDFW to consider ([link to the two Advisory Committee proposals](#)). Components from the two Advisory Committee proposals are included in the FEIS’s alternatives.

SEPA Process Overview

The State Environmental Policy Act (SEPA) EIS process provides opportunities for other agencies, stakeholders, tribal governments, and the public to participate in analyzing information and alternatives for any action that may have significant environmental impacts. This process, as detailed in Chapter 197-11 WAC, will highlight potential environmental consequences of WDFW’s actions and identify mitigation opportunities WDFW can consider when making decisions. The SEPA EIS process ensures public input into policy development and includes:

- Scoping;
- Preparing a draft EIS (DEIS), which analyzes the probable impacts of a proposal and reasonable alternatives;
- Issuing the DEIS for review and public comment;
- Preparing an FEIS, which includes analyzing and responding to comments received on the DEIS;
- Issuing the FEIS; and
- Using the FEIS in decision-making.

² Commercial Whale Watching Licensing Program Advisory Committee, “CWWLP Advisory Committee Draft Charter and Rules.”

Non-project Action

The CWWLP is considered a “non-project action” under SEPA (Chapter 43.21C RCW and Chapter 197-11WAC). Non-project actions include the adoption of plans, policies, programs or regulations containing standards that will guide future actions. The probable significant adverse environmental impacts analyzed in a non-project, or programmatic, EIS are those impacts foreseeable at this stage, before specific project actions are planned. If more specific actions are needed in the future, management decisions will be guided by the policies developed during this process.

Scoping

Scoping initiates public involvement in the SEPA EIS process. Its three purposes are to:

- Narrow the focus of the EIS to significant environmental issues;
- Eliminate insignificant impact issues or those not directly related to the proposal; and
- Help identify reasonable alternatives, consistent with the purpose and need of the proposed action, to be analyzed in the EIS.

The scoping process alerts the public, the project proponent, and the lead agency to areas of concern and potential controversy early in the process. Here, WDFW is both the project proponent and the lead agency. Scoping for the CWWLP rules was initiated in May 2020 and concluded on June 8, 2020. Key steps of the scoping process included:

- 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; and
- A scoping public comment period occurred from May 18, 2020 to June 8, 2020, during which 165 people commented. 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.

During the 22-day scoping period, 165 people provided comments through an online web form and during a two-hour virtual public meeting. From the online web form, 152 comments were submitted. The most common themes within the EIS scope were number of boats (mentioned in 37% of comments) and the sentinel role of the commercial whale watchers (mentioned in 12% of comments). The following themes represented 10% or less of the comments, from most common to least common: distance from whales, time with whales, use of best available science, technology to reduce vessel noise, access zones, education and communication, seasonal viewing, general whale disturbance, and AIS. During the two-hour virtual public meeting, thirteen people offered comments on the record. The most common themes within the EIS scope were number of boats (mentioned in 33% of comments), sentinel role (mentioned in 33% of comments), and access zones (mentioned in 17% of comments). The following themes represented 8% or less of the comments: time with whales, and education and communication.

Approximately half of the total public comments fell outside of the scope of this environmental review, as they were not related to the licensing program. “Outside the scope of the EIS” was defined as a comment that did not provide a perspective or information that can be incorporated into an EIS alternative as outlined by the Legislature in RCW 77.65.620. The themes that fell outside the scope of the EIS were abolish commercial whale watching, enforcement, fee structures, SRKW access to prey, and working with other groups.

DEIS Public Comment Period and Changes Made for the FEIS

The 30-day DEIS public comment period started on September 23, 2020, during which reviewers had the opportunity to comment on the accuracy and completeness of the environmental analysis, the methodology used in the analysis, and the need for additional information and/or mitigation measures, so that improvements to the EIS could be made before its finalization. The public comment period for the DEIS concluded on October 23, 2020. Key steps of the public comment period included:

- A DEIS public comment notice was sent to over 700 individuals and interested groups in September 2020; and
- A virtual public comment meeting on October 19, 2020.

During the 30-day public comment period, 835 people provided comments through an online web form, electronic mail, and/or during the two-hour virtual public meeting. Of this total, 828 comments were submitted via the online web form and through electronic mail, and seven people offered verbal comments during the virtual public meeting. Public comment themes considered for the FEIS included: use of AIS, the precautionary principle recommended by the WSAS science panel, providing education during tours, using best available science, SRKW biological information, and the sentinel or magnet effect of CWW vessels.

Similar to comments submitted during the scoping public comment period, many comments fell outside the scope of the EIS as defined in RCW 77.65.620. Out of scope comment themes included abolishing or placing a moratorium on all CWW, enforcement practices, license fee structures, regulations for non-CWW vessels (e.g., private recreational vessels, ferries, or commercial ships), and fisheries management.

The FEIS includes edits made to the DEIS based on in-scope public comments and a comprehensive list of all public comments received during the public comment period (see Appendix C).

Life History, Habitat, and Conservation Status of SRKWs

SRKW Life History and Biology

SRKWs are one of three genetically distinct ecotypes of orcas that live in Washington: Resident, Transient (or Bigg's), and Offshore. Each ecotype has different diet, morphology, and acoustic and foraging behaviors.³ SRKWs live in three pods: J, K, and L. These pods contain several matriline, which are composed of an older female, her daughters and sons, and the daughters' offspring. Pods typically contain several matriline that are closely related along with their descendants of both sexes with an average of 18 individuals per matriline.⁴ These pods can break into separate matriline at any time; they also may temporarily form large aggregations with multiple matriline and pods if there is a high abundance of prey.⁵

SRKWs generally are long-lived mammals with a life expectancy ranging from 50 to 80 years depending on sex, with females generally living longer than males. SRKW females can live up to 80 years and typically give birth to their first calf between 12 and 18 years.⁶ SRKW males typically attain sexual

³ Ford and Ellis, "You Are What You Eat," 76.

⁴ Ibid, 83.

⁵ Ibid, 83.

⁶ Biggs et al., "Social organization," 385.

maturity between 11.5 and 17.5 years of age and can live up to 60 years.⁷ Each SRKW has unique natural markings on their dorsal fin and the grey “saddle patch” at the base of the fin, allowing experts to track age, activity and reproductive status of individuals.⁸

SRKWs eat fish and have a strong preference for Chinook salmon because of their large size and rich lipid content.⁹ Chinook salmon make up approximately 80% of SRKW diet and are the dominate diet in the early summer. Coho salmon make up approximately 15% of SRKW diet and are consumed in late summer.¹⁰ To locate their prey, SRKW use echolocation.¹¹ When there is a high level of underwater noise caused by vessels or other instrumentation, it can mask or impair SRKW’s ability to communicate with one another and echolocate.¹²



Figure 1: Map of Salish Sea (courtesy of Canadian Geographic)

SRKW Habitat and Range

The three SRKW pods range from central southeast Alaska to central California, with visits to the Salish Sea (inland marine waters between Washington, Vancouver Island, and British Columbia that include the Strait of Juan de Fuca, Puget Sound, Georgia Strait, and the San Juan Islands; see Figure 1) and the outer coasts of Washington and southern Vancouver Island. Each pod has different habitat patterns within this range.¹³ Pods K and L use a wider portion of the range, whereas J pod is more focused in the Salish Sea, and in the winter inhabit the area north of the Strait of Georgia. In recent years, the number of SRKW observations has been lower-than-typical in a historical perspective.¹⁴ The Pacific Whale Watch Association (PWWA) has recorded that the K- and L-Pod have been sighted in the Salish Sea on average less than 10% of each year from 2017-19. During this three-year period, PWWA observed that SRKWs were seen between 20 and 113 days per year and varied between pods.¹⁵ These sightings were typically on the west side of San Juan Island. As prey availability fluctuates, SRKWs’ foraging locations and ranges are expected to change.¹⁶ SRKWs forage in several key areas: the southern region of Haro Strait, southwest of San Juan Island, and further south in Puget Sound during the fall and early winter^{17,18}.

⁷ Ibid, 385.

⁸ Ford and Ellis, “You Are What You Eat,” 77.

⁹ Ford et al., “Dietary specialization,” 1465.

¹⁰ Ford et al., “Estimation of a Killer Whale,” 1.

¹¹ Au et al., “Echolocation signals,” 901.

¹² Purce and Solien, “Southern Resident Orca Task Force,” 26.

¹³ Hauser et al., “Summer distribution,” 302.

¹⁴ Olson et al., “Sightings of southern resident killer whales,” 116.

¹⁵ Pacific Whale Watch Association, “Southern Resident Killer Whale Recovery,” 2.

¹⁶ Washington State Academy of Sciences, “Q&A,” 2.

¹⁷ Noren and Hauser, “Surface-Based Observations,” 169.

¹⁸ Washington State Academy of Sciences, “Q&A,” 2.

Recent data suggests that the Strait of Juan de Fuca has become an increasingly important area for foraging.¹⁹

SRKW Conservation Status and Threats

Since 1974, an annual census has monitored SRKW appearance and populations in Washington and Canada. From 1996 to 2001, the population declined 20% from 97 to 78 individuals.²⁰ This prompted SRKWs to be listed as an endangered species in Washington State in 2004 and listed as endangered under the federal Endangered Species Act (ESA) in 2005.²¹ The population has fluctuated from the high 80s to the low 70s since its 2004 and 2005 listings. As of fall 2020, the population consists of 74 individuals.²² One of the factors that contributes to this fragile population is the lack of female calves born over the past two decades, which reduces the population's reproductive potential. Additionally, as the number of individual orcas decreases, there are less opportunities for reproduction and a higher chance of inbreeding and susceptibility to disease.²³

SRKWs face many threats, including: lack of their primary food source (Chinook salmon), disturbance from vessel traffic and associated noise, toxic contaminants, climate change, and the effects of an increasing human population across the region.²⁴ These threats relate to each other and collectively contribute to the imperiled status of the species.

- **Lack of primary food source:** Fraser River Chinook salmon runs, which typically peak in late summer, have declined in Puget Sound and the Pacific Northwest and are returning younger and smaller.^{25,26} This population, age, and size shift are due to a combination of habitat loss and degradation, fish passage barriers, harvest, predation and forage fish, hatcheries, and hydropower survival. The smaller population of Chinook salmon inhibits the SRKW path to recovery.²⁷
- **Disturbance from vessel traffic and associated noise:** Vessel presence can elicit SRKW behavioral disruptions such as increased surface-active behaviors, changes in swimming patterns, and reduced foraging behavior.²⁸ SRKWs are affected by the presence and general disturbance of vessels, including non-motorized vessels such as kayaks.²⁹ SRKWs are not only affected by the general presence of vessels but the time spent around vessels. Reducing time spent around vessels would reduce daily and cumulative exposure to noise and disturbance, therefore reducing daily and cumulative impacts.³⁰ In addition to the mere presence of vessels, other factors such as vessel speed, distance from SRKWs, vessel type (motorized vs. non-motorized), and number of vessels has an impact on the disturbance levels. Motorized vessels traveling at higher speeds produce more underwater sound, and the underwater sound is higher for SRKWs as vessels get closer to them. In 2019, Washington passed new regulations that required all vessels to maintain at least a 400-yard distance in the path of SRKW and to not

¹⁹ Ibid, 2.

²⁰ Krahn et al., "Status Review," xi.

²¹ Purce and Solien, "Southern Resident Orca Task Force," 15.

²² Center for Whale Research, "Orca Population".

²³ Washington State Academy of Sciences, "Summary of Key Research Findings," 6.

²⁴ Ibid, 15.

²⁵ Ayres et al. "Distinguishing the Impacts," 2.

²⁶ Washington State Academy of Sciences, "Summary of Key Research Findings," 9.

²⁷ Ibid, 9.

²⁸ Washington State Academy of Sciences, "Q&A," 7.

²⁹ Ibid, 7.

³⁰ Ibid, 9.

exceed speeds of more than seven knots within one-half nautical mile (RCW 77.15.740). This FEIS analyzes additional measures to reduce impacts to SRKWs from commercial whale watching vessels. Other areas of concern include larger ships, small vessels (including private recreational vessels), echo sounders, and oil spills.³¹

- **Toxic contaminants:** SRKWs are exposed to various toxic contaminants and pollutants primarily through their prey. Their dominant food source, salmon, accumulate the pollutants in their bodies and transfer them to SRKWs. Toxic contaminants can cause reproductive disruption and reduced immunity. Pregnant females can transfer these toxic contaminants and pollutants to their offspring, threatening the offspring's chance of survival.³²
- **Climate change and the effects of an increasing human population across the region:** As more people move to the Puget Sound and Pacific Northwest, there is an increased risk for stressors such as toxic contaminants, vessel traffic and associated noise, and overall climate change. Climate change affects the marine environment in many ways, including ocean warming and increasing ocean acidification, which can have a large impact on SRKW prey.³³

Overview of Whale Watching in Washington

Whale watching is an important part of the tourism economy in Washington, particularly around the San Juan Islands. Whale watching can be done either through boat-based tours or from land-based viewing points throughout Washington. Specifically, approximately 70,500 people participate in boat-based whale watching and 230,000 people watch whales on land each year in San Juan County, with a total of over 300,000 participants.³⁴ According to a 2019 report by Earth Economics that examined the economic contribution of whale watching in San Juan County, whale watching supports over 1,800 jobs in both direct boat operations and naturalist positions as well as service-related jobs such as restaurants, bars, and hotels, and generates more than \$12 million in state and local tax revenue.³⁵

A variety of organizations conduct boat-based commercial whale watching tours from several ports throughout the Salish Sea. The peak season for orca watching occurs from June through August, although whale watching tours operate year round in different parts of the state.³⁶ The industry is primarily comprised of motorized whale watching, motorized or sailing vessel excursions whose primary purpose is to view whales; and kayak tours, which include single day to multi-day excursions for sightseeing, wildlife viewing, and exploration.³⁷ Whale watching companies range in size (e.g., number of vessels in fleet, number of employees, etc.), and many are part of the PWWA. PWWA is comprised of 31 members, 17 of which are based in Washington State.³⁸

The Soundwatch Boater Education Program of the Whale Museum annually observes, tracks, and educates vessel operators (both commercial and private recreational) on proper SRKW-viewing protocols from May through September (since 1998). Soundwatch produces an annual report with metrics such as number and types of vessels around whales, time with orcas, and number of incidents

³¹ Purce and Solien, "Southern Resident Orca Task Force," 26.

³² Ibid, 31.

³³ Ibid, 39.

³⁴ Van Deren et al., "The Whales in Our Waters," 9.

³⁵ Ibid, 22.

³⁶ Taylor Shedd, et al. "2019 Soundwatch," 27.

³⁷ Industrial Economics, Inc. (IEC), "Economic Viability", 11.

³⁸ Shedd, et al. "2019 Soundwatch,"10.

during those five months. In 2019, there were an average of about five commercial whale watching vessels, two kayaks, and about three private recreational vessels within one half nautical mile of orcas (See Figure 2). The majority of vessels of all types view orcas between 10:00 AM and 5:00 PM, and in 2019 the peak numbers of vessels around orcas occurred during the month of July (See Figure 3). Most CWW trips for U.S.-based PWWA members currently occur between 9:00 AM and 6:00 PM, but some operators offer evening or sunset tours that last as late as 9:30 PM.³⁹

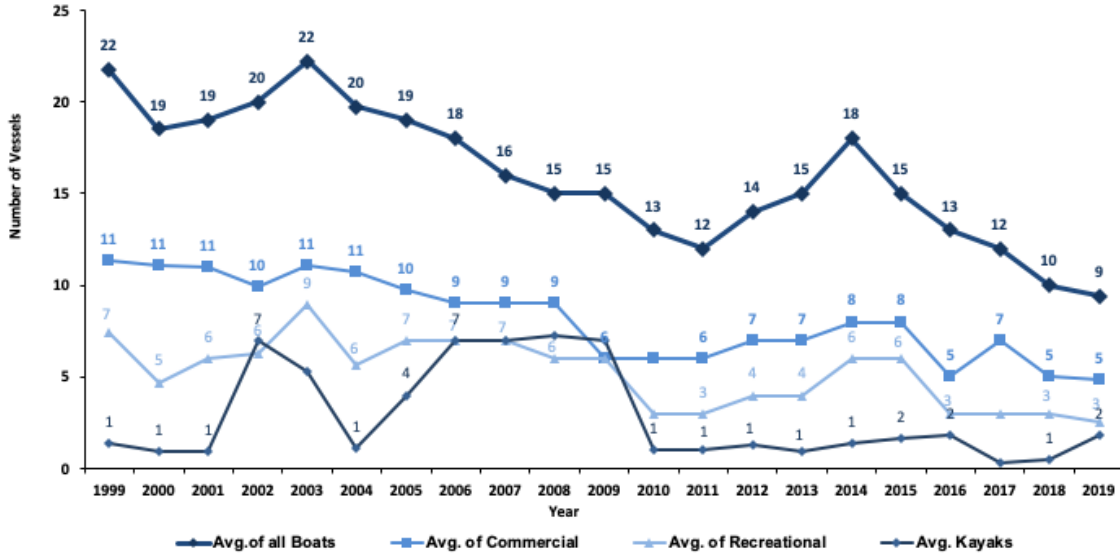


Figure 2: Average Number of Vessels by Type Within 1/2 Mile of Orcas in Boundary Waters (1999-2019)
Source: The Whale Museum, Soundwatch Program

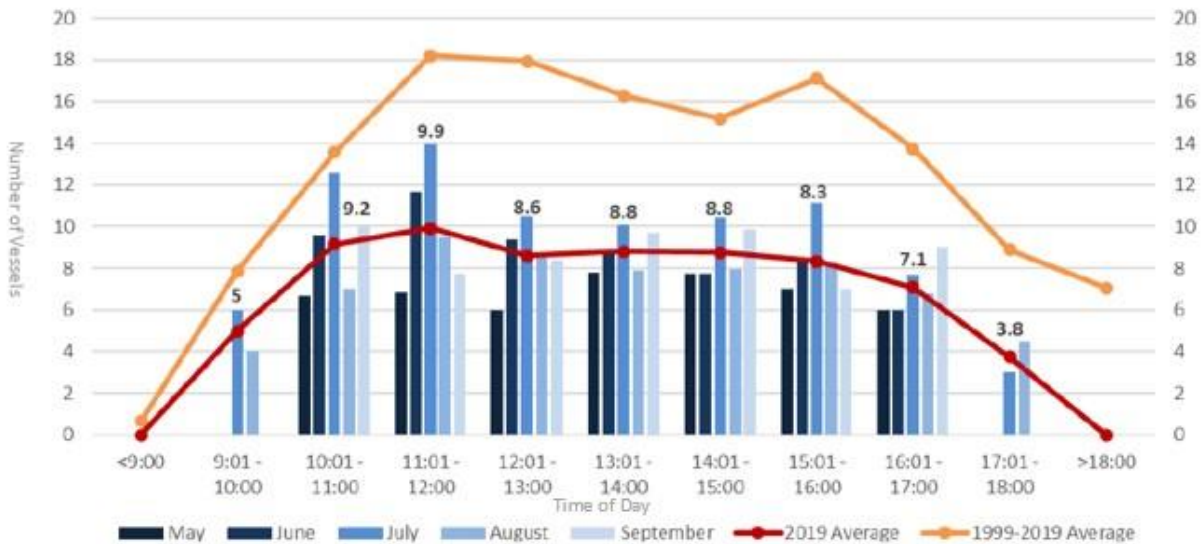


Figure 3: Average Number of Vessels Around Orcas by Time of Day, Average for 2019 and 20-Year Average (1999-2019)
Source: The Whale Museum, Soundwatch Program

³⁹ Industrial Economics, Inc. (IEc), "Economic Viability", 21.



II. Alternatives

Context for FEIS Alternatives

The FEIS evaluates four reasonable alternatives by examining probable significant adverse environmental impact associated with them. A “reasonable” alternative meets the demands of the legislative mandate (RCW 77.65.620), reduces environmental impacts, and is within WDFW’s authority.⁴⁰ The final rules WDFW implements for the CWWLP, or its final action, must reduce the daily and cumulative impacts of vessel noise and disturbance on SRKWs and consider the economic viability of CWW license holders.

The final action chosen by WDFW might not be identical to any single alternative; after reviewing the results of the FEIS, WDFW could choose a hybrid that combines more and less restrictive expressions of the components (instead of a uniform expression of restrictiveness across all components) to best meet its legislative mandate. In addition, for components that are expressed in ranges, WDFW may select specific values rather than ranges for the final action (e.g., WDFW might choose a specific number of vessels that may be in the vicinity [defined in the EIS as at or within one-half nautical mile] of SRKWs, rather than using a range of vessels).

WDFW is not currently considering a complete moratorium, or temporary ban, on commercial whale watching activity. However, several Alternative 1 components include zero in their range. For example, under Alternative 1, WDFW has an option to limit CWW operations to zero days of the week. Component ranges that include zero are meant to provide maximum flexibility when designing regulations and will be considered in combination with other factors, such as seasonal variation.

As WDFW considers the final action, the WSAS science panel advises using the precautionary approach for SRKW management due to the fragile SRKW population. In this approach, if “an activity threatens harm then measures should be taken – even if certain cause-and-effect relationships are not fully

⁴⁰ Washington State Department of Ecology, “State Environmental Policy Act Handbook,” 35.

established scientifically. The committee suggests defining every interaction with an SRKW as an opportunity to disturb a whale.⁴¹ In Chapter 3: *Affected Environment, Impacts, and Mitigation Measures*, the analysis of alternatives uses the assumption that every interaction with SRKWs is an opportunity to disturb the animals.

The FEIS assumes the following definitions of terms that describe the components and alternatives:

- A **vessel** is a motorized boat. However, it is possible that a kayak or a group of kayaks affiliated with a commercial whale watching tour could be considered a vessel as well. In the FEIS we distinguish between CWW vessels (vessels used for CWW tours) and private recreational vessels (e.g., research vessels or vessels owned and operated by members of the public or other institutions).
- A **group of SRKWs** is one or more individuals. Individual SRKWs are considered in the same group when they are separated by one-half nautical mile or less.
- **Vicinity** means at or within one-half nautical mile. The FEIS alternatives consider vicinity in the context of individual orcas, rather than examining vicinity in relation to groups or pods of orcas.

A note about the definitions of *group of SRKWs* and *vicinity*: changing the definitions of these terms can change the magnitude of impacts associated with the alternatives.

- For example, if a group of SRKWs is defined as a pod, impacts from CWW vessels could be distributed to more SRKWs than if a group is considered one or more individuals. Consider a situation where there is one SRKW within the vicinity of a CWW vessel and other SRKWs in the pod are outside that range. If there were limitations on the duration of time CWW vessels may spend in the vicinity of SRKWs based on the *pod*, rather than the *individual*, then the time that the CWW vessel is within the vicinity of that first SRKW would set the limits for the duration for all other members of the pod, therefore further limiting the potential for noise and disturbance impact from CWW to those other pod members.
- Similarly, if vicinity is defined as further or closer than one-half nautical mile, impacts from CWW vessels on SRKWs would be reduced or increased, respectively. For example, if the number of vessel limitation applied at a further distance (e.g., vessels numbers were restricted when within 1 nautical mile of SRKW), then there would be more potential to reduce noise and disturbance impact from CWW (more benefit to SRKW).

FEIS ALTERNATIVE COMPONENTS

- *Number of CWW vessels in the vicinity of SRKWs*
- *Duration of time CWW vessels may spend in the vicinity of SRKWs*
- *SRKW viewing hours*
- *Hours of CWW operation*
- *SRKW viewing days*
- *Days of CWW operation*
- *SRKW viewing seasons*
- *CWW operating seasons*
- *Geographically restricted access areas*
- *Use of sonar or echolocation devices*
- *Reporting requirements*
- *Non-motorized vessel regulations*
- *Use of AIS*

⁴¹ Washington State Academy of Sciences, "Summary of Key Research Findings," 4.

Description of FEIS Alternatives

The alternatives represent a range of options that will allow WDFW to evaluate and compare the merits of different actions. Each alternative is comprised of thirteen components of the CWWLP. The difference between the alternatives is in how the components are expressed, with Alternative 1 representing the most restrictive expression of each component and Alternative 4 representing the least restrictive (or status quo) expression of each component.

Alternative 1

Alternative 1 represents the most conservative expression of each program component that WDFW could consider in meeting its mandate. It would reduce SRKWs' exposure to CWW vessel noise and disturbance the most out of all the alternatives and would likely result in the most benefits to SRKWs. Alternative 1 captures the most restrictive actions that WDFW could choose because it includes zero in all of its component ranges, which, if chosen, would eliminate CWW vessel noise and disturbance on SRKWs. In general, it would place the most extreme restrictions on CWW operations and SRKW viewing and would likely result in the most reductions of SRKW viewing opportunities for recreators through CWW tours. Alternative 1 contains the following component variations:

- Alternative 1 places the tightest limitations on the days and hours for commercial whale watching and viewing of SRKWs. In this alternative, all CWW operations are restricted seasonally for a period of 8 to 11 months by limiting all CWW operations to a 0- to 4-hour per day window and to 0 to 2 days per week. During the other 2 to 4 months of the year, SRKW viewing only (not CWW operations overall) would be limited to a 0- to 4-hour per day window and to 0 to 2 days per week.
- Alternative 1 also places the most limits on the number of vessels, duration, and geographic areas for viewing SRKWs. In this alternative, 0 to 2 CWW vessels would be allowed to view SRKWs at a time; CWW vessels (not including kayaks) would be limited to spending 0 to 15 minutes in the vicinity of SRKWs; and multiple geographic areas would be closed to CWW (except for safety reasons). The closed geographic areas would include the west side of San Juan Island (the current voluntary no-go zone that SRKWs frequently use for foraging), and other agreed upon geographic areas. Any of these limitations on SRKW viewing could be implemented on a seasonal basis for 8 to 11 months or year-round.
- Alternative 1 is the only alternative that includes requirements related to sonar and echolocation devices because it is a binary option (devices can be on or off). Sonar and echolocation devices allow CWW vessels to more easily locate whales but they emit noise into the water column that can interfere with the SRKWs' echolocation.⁴² In this alternative, CWW vessels that have sonar or echolocation devices would be required to turn those devices off, to standby, or tune them to 200 kHz mode when in the vicinity of SRKWs, unless a specific safety concern requires continued use of sonar or echolocation.
- To assist with WDFW's implementation of the CWWLP, CWW operators would be required to report on the presence and location of SRKWs and/or provide documentation of their

⁴² Washington State Academy of Sciences, "Review of Proposed Rules," 4.

observations of SRKWs, such as logs of SRKW sightings, viewing, and other on-the-water observations.

- In addition to meeting the requirements that apply to all CWW operators, kayak tours also would be required to adhere to some or all of the voluntary Kayak Education Leadership Program (KELP) best practices that are applicable to orcas, as well as comply with other restrictions WDFW might impose such as requiring kayak tours to remain within 100 yards from shore on the west side of San Juan Island (as long as it is safe) and/or requiring kayak tours to stay on shore if SRKWs are in the vicinity while kayaks are launching. The KELP best practices, as documented in the 2011 Kayakers' Code of Conduct, are voluntary guidelines for kayakers to assist in adhering to existing laws to protect orcas and other wildlife.⁴³
- An automatic identification system (AIS) is a tracking system that uses transceivers to provide information such as vessel identification, position, course, speed, and navigational status. All CWW vessels, both motorized and non-motorized, would be required to have AIS installed and turned on when operating tours. Tours with non-motorized vessels, such as kayaks, can meet this requirement by having AIS installed on one boat per tour.

Alternative 2

Alternative 2 is a mid-range alternative WDFW can consider in meeting its mandate. It includes moderate limitations on commercial whale watching to reduce potential noise and disturbance impacts on SRKWs. Compared to Alternative 1, Alternative 2 will likely have slightly less benefits for SRKWs and less restrictions on CWW.

- Under Alternative 2, WDFW would place mid-range limitations on the days and hours for commercial whale watching and viewing SRKWs. WDFW would restrict CWW operations seasonally for a period of 4 to 7 months by limiting CWW operations to a 4- to 8-hour per day window and to 3 to 5 days per week. WDFW also would limit the days and times when CWW operators could view SRKWs to the same periods; that is, SRKW viewing would be allowed 3 to 5 days a week for 4 to 8 hours per day. WDFW may decide to implement the SRKW-viewing limitations either year-round or for 4 to 7 months.
- WDFW could place limits on the number of vessels, duration, and geographic areas for viewing SRKWs that fall between those of Alternatives 1 and 3. Up to 3 to 4 CWW vessels would be allowed to view SRKWs at a time, CWW vessels (not including kayaks) would be limited to spending 16 to 45 minutes in the vicinity of SRKWs, and multiple geographic areas would be closed to CWW (except for safety reasons). The closed areas would include the west side of San Juan Island and at least one other area (e.g., SRKW foraging areas). WDFW may implement any of these limitations on SRKW viewing for 4 to 7 months instead of year-round.
- The reporting requirements in Alternative 2 apply in more limited conditions than in Alternative 1. Under Alternative 2, CWW operators would need to report SRKW locations *when observing the presence of private recreational vessels with SRKWs* (e.g., when 1 or more recreational boats are in the vicinity or only when larger groups of recreational boats are in the vicinity).

⁴³ Whale Museum, "Responsible Kayaker Code."

- Along with requirements that apply to all CWW operators, kayak tours would need to adhere to some, or all, of the voluntary KELP best practices outlined in the Kayaker Code of Conduct.⁴⁴
- All motorized CWW vessels would be required to have AIS installed and turned on when operating tours, regardless of whether they are viewing SRKWs or not.

Alternative 3

Alternative 3 is a less restrictive set of limitations on commercial whale watching WDFW could consider in meeting its mandate for reducing potential noise and disturbance impacts to SRKWs, but it includes more restrictions on commercial whale watching than the status quo. This alternative contains the following combination of components:

- Under Alternative 3, WDFW would place less restrictive limitations on the days and hours for commercial whale watching than Alternatives 1 and 2, but more than under the No Action Alternative. WDFW would restrict CWW operations seasonally for a period of 1 to 3 months by limiting CWW operations to 6 days per week and operating hours to the period from 1 to 2 hours after sunrise to 1 to 2 hours before sunset. WDFW would also restrict when CWW operators could view SRKWs to similar days per week and times of the day as for CWW operations. WDFW may decide to implement the SRKW viewing limitations either year-round or for 1 to 3 months in this alternative.
- WDFW could place less restrictive limitations on the number of vessels, duration, and geographic areas for viewing SRKWs. Five to 10 CWW vessels would be allowed to view SRKWs at a time, CWW vessels (not including kayaks) would be limited to spending 46 to 60 minutes in the vicinity of SRKWs, and the west side of San Juan Island would be closed to CWW. WDFW may implement any of these limitations on SRKW viewing for 1 to 3 months instead of year-round.
- Under Alternative 3, CWW operators would need to report emergency situations (e.g., SRKW health or injury problems); no other reporting on SRKW presence, location, and/or on the water behavior would be required.

Alternative 4: No Action (Status Quo)

Alternative 4, or the No Action Alternative, reflects the current CWW regulatory status which does not include regulations other than those already in place for all Washington vessels; taken as a whole, Alternative 4 does not allow WDFW to meet its mandate. For some elements, the No Action Alternative also includes best practices outlined by PWWA, Be Whale Wise, and the Whale Museum's Soundwatch Boater Education Program and KELP kayak guidelines.^{45,46,47} The No Action Alternative is associated with the most adverse impacts on SRKWs; it provides a baseline for comparing potential impacts associated with any action WDFW takes in implementing rules for commercial whale watching. Under this alternative, the following conditions continue to apply:

⁴⁴ Ibid.

⁴⁵ Pacific Whale Watch Association, "PWWA Voluntary Guidelines."

⁴⁶ Be Whale Wise, "Marine Wildlife Guidelines."

⁴⁷ Whale Museum. "Soundwatch Boater Education Program."

- There are no existing limits on what seasons, days, and/or hours of the day that commercial whale watching operators may operate, or the hours/times that they may view SRKWs.
- There are no mandatory limits on SRKW viewing time, but there are two different existing voluntary guidelines for limiting whale viewing time:
 - The PWWA best practice is for vessels to limit their time in the vicinity (defined as 1 km or 0.65 mile) of a group of whales to 60 minutes. However, in instances when there are more than 9 PWWA vessels (this includes most of the commercial whale watching operators in Washington) in the vicinity of whales, the best practice is for vessels to limit viewing time to 30 minutes.
 - The Be Whale Wise guidelines recommend limiting viewing time (for whales, porpoises, dolphins, seals, sea lions, any animal hauled out, and nesting birds) to 30 minutes.
- There are no existing limitations on the number of CWW vessels that may view SRKWs at a time, but, as noted above, the PWWA recommends shorter viewing times when there are more than 9 CWW vessels in the vicinity of whales.
- The west side of San Juan Island, a common SRKW foraging area, is a voluntary no-go zone for motorized CWW vessels in PWWA and Soundwatch Boater Education educational materials (see Figure 4: Map of Voluntary No-Go Zone) that is meant to reduce foraging disturbance from vessels. In this zone, motorized CWW operators should remain at least one-quarter mile off the main shoreline of the west side of the island (from Mitchell Point to Cattle Point) as well as stay at least one-half mile from the light beacon at Lime Kiln State Park. No other voluntary or mandatory no-go zones for CWW are in place in Washington state.
- PWWA guidelines recommend that sonar, depth sounders, fish finders, and other underwater transducers be shut off when vessels are in the vicinity of whales.
- There are no current requirements for reporting information related to SRKWs. Some CWW operators voluntarily report SRKW presence and location to WDFW Enforcement, Soundwatch, and/or the WhaleReport Alert System (WRAS).
- There are no separate existing requirements for kayak tour operators. The KELP Kayaker Code of Conduct voluntary best practices are designed to support responsible paddling practicing, including ensuring compliance with the 2011 federal vessel regulations related to maintaining at



Figure 4: Map of Voluntary No-Go Zone (Courtesy of San Juan Journal)

least a 200-yard distance from killer whales and avoiding being within 400 yards of the path of killer whales.

- *Use of AIS:* Currently, approximately 50% of the Primary Motorized Whale Watch fleet have AIS installed per US Coast Guard requirements for vessels 65 ft and above.⁴⁸ However, there are no CWW-specific requirements related to AIS use.

⁴⁸ Personal communication with Kelley Balcomb-Bartok and Jeff Friedman, Pacific Whale Watch Association on June 5, 2020, as cited in Industrial Economics, Inc. (IEC), "Economic Viability", 19.

Table 1: Summary of EIS Alternatives and Components

Alternative Component		Component Description	Alternative 1	Alternative 2	Alternative 3	Alternative 4: No Action
1	Number of vessels	The number of CWW vessels (both motorized and non-motorized) that can view SRKWs at one time	0 to 2 at a time	3 to 4 at a time	5 to 10 at a time	Unlimited
2	Duration	The amount of time motorized CWW vessels can spend in the vicinity of SRKWs	0 to 15 minutes in the vicinity of SRKWs	16 to 45 minutes in the vicinity of SRKWs (This may or may not include provisions about seeking SRKWs to view them.)	46 to 60 minutes in the vicinity of SRKWs (This may or may not include provisions about seeking SRKWs to view them.)	Unlimited, but PWWA best practice is 60 minutes unless there are 9+ PWWA vessels within 1km, in which case best practice is 30 minutes; Be Whale Wise guideline is to limit viewing time to 30 minutes
3	SRKW viewing hours	The number of hours CWW vessels (both motorized and non-motorized) may view SRKWs	Commercial SRKW viewing limited to a 0- to 4-hour daily window	Commercial SRKW viewing limited to a 4- to 8-hour daily window	Commercial SRKW viewing limited to window between 1 to 2 hours after sunrise to 1 to 2 hours before sunset	Unlimited
4	Hours of CWW operation	The number of hours CWW vessels (both motorized and non-motorized) may operate	CWW operation limited to a 0- to 4-hour daily window	CWW operation limited to a 4- to 8-hour daily window	CWW operation limited to window between 1 to 2 hours after sunrise to 1 to 2 hours before sunset	Unlimited
5	SRKW viewing days	The number of days CWW vessels (both	Restrict SRKW viewing to 0 to 2 days per week	Restrict SRKW viewing to 3-5 days per week	Restrict SRKW viewing to 6 days per week	Unlimited

		motorized and non-motorized) may view SRKWs				
6	Days of CWW operation	The number of days CWW vessels (both motorized and non-motorized) may operate	Restrict CWW operation to 0 to 2 days per week	Restrict CWW operation to 3 to 5 days per week	Restrict CWW operation to 6 days per week	Unlimited
7	SRKW viewing seasons	Specific seasons or timeframes when CWW operations (both motorized and non-motorized) have additional restrictions on SRKW viewing	Additional restrictions on SRKW viewing (e.g., hours and/or days) for an 8- to 12-month window	Additional restrictions on SRKW viewing (e.g., hours and/or days) for a 4- to 7-month window	Some additional restrictions on SRKW viewing in a 1- to 3-month annual window	Unlimited
8	CWW operating seasons	Specific seasons or timeframes when CWW operations (both motorized and non-motorized) have additional operating restrictions	Additional restrictions on CWW (e.g., hours and/or days of CWW operation) for an 8- to 11-month window	Additional restrictions on CWW (e.g., days and/or hours of CWW operation) for a 4- to 7-month window	Additional restrictions on CWW (e.g., days and/or hours of CWW operation) for a 1- to 3-month window	Unlimited
9	Geographically restricted access	Establish specific areas in which CWW vessels (both motorized and non-motorized) can and cannot operate	Close multiple areas (e.g., SRKW foraging habitat, including west side of San Juan Island) to CWW, including more areas than in Alternatives 2 and 3	Close multiple areas (e.g., SRKW foraging habitat, including west side of San Juan Island) to CWW	Codify the existing voluntary west side of San Juan Island no-go zone	Unlimited, but Be Whale Wise guidelines recommend the no-go zone, and PWWA best practice restricts the west side of San Juan Island

10	Use of sonar or echolocation devices	The use of sonar or echolocation on motorized CWW vessels when operating tours	Require all CWW vessels to turn off (put in standby) sonar or echolocation devices or switch to 200 kHz mode when in the vicinity of SRKWs (when it is safe to do so)	N/A; same as No Action Alternative	N/A; same as No Action Alternative	No existing requirements, but PWWA best practice to turn off sonar and echolocation devices when in the vicinity of whales
11	Reporting	CWW tour operators (both motorized and non-motorized) report SRKW presence and location to WDFW Enforcement, Soundwatch, and/or WRAS, or a successor transboundary notification system that is adopted by the international shipping community in the Salish Sea	Require CWW operators to report SRKW presence and location and/or provide documentation (e.g. logs of SRKW sightings, viewing, and other on-the-water observations)	Require CWW operators to report SRKW location when observing recreational presence with SRKW (e.g., when 1 or more recreational boats are in the vicinity, or only when larger groups of recreational boats are in the vicinity)	Require CWW operators to report emergency situations (e.g., SRKW health or injury problems; incidents resulting in “take”)	No reporting requirements for CWW operators; some CWW operators voluntarily report SRKW presence and location

12	Non-motorized vessel regulations	Regulations that are specific to kayak and paddle tours and do not apply to motorized CWW operations (separate from components 1, 3, 4, 5, 6, 7, 8, 10, 11, and 13 that already include non-motorized vessels)	Codify some or all of the Kayak Education and Leadership Program (KELP) best practices and add extra restrictions (e.g., require kayak tours on the west side of San Juan Island to remain 100 yards from shore [as long as it is safe] and/or prohibit kayak and paddle tours from launching if SRKWs are in the vicinity)	Codify some or all of the Kayak Education and Leadership Program (KELP) best practices	N/A; same as No Action Alternative	No kayak- or paddle-specific regulations; KELP best practices are voluntary
13	Use of AIS	The use of automatic identification systems (AIS) on CWW vessels (both motorized and non-motorized) when operating tours	Require all CWW vessels (both motorized and non-motorized) to have AIS installed and turned on when operating tours	Require motorized CWW vessels to have AIS installed and turned on when operating tours	N/A; same as No Action Alternative	No AIS requirements

Notes:

- *Component 12, non-motorized regulations, includes additional regulations for non-motorized vessels that are not already captured in other components.*
- *Each alternative includes an adaptive management cross-cutting component which is discussed below.*
- *Restrictions on CWW operating hours and days (components 4 and 6) would likely apply in the context of seasonal restrictions (component 8) – not year-round.*

Adaptive Management

Adaptive management is an important cross-cutting component of EIS alternatives. WDFW is committed to developing an adaptive management strategy that will allow the CWWLP to adapt to new information about the status of SRKW and effectiveness of the CWWLP as it becomes available through monitoring and evaluation.

Adaptive management is a systematic approach for improving resource management by learning from management outcomes. A common challenge in natural resources management involves the need to take action even in the face of uncertainties that could significantly influence management performance. An adaptive approach provides a framework for making good decisions in the face of critical uncertainties and a formal process for improving management over time in response to data and information on management outcomes.⁴⁹

The Washington State Academy of Sciences (WSAS) independent science panel encourages the use of adaptive management and identified several scenarios in which the CWWLP could benefit from an adaptive management approach as well as potential tradeoffs among alternative strategies that could be revealed during program implementation. For example, if new research emerges that clarifies understanding of vessel impacts on SRKWs, WDFW might adjust the regulations to be more or less restrictive to align with the new information. Similarly, if monitoring data shows positive or negative responses in the SRKW population or presence in the Salish Sea, WDFW might introduce new measures or modify the existing rules.⁵⁰ Thus, with an adaptive management strategy, WDFW could adjust the CWWLP to better meet its purpose.

The WSAS independent science panel provides information and recommendations for adaptive management strategies and metrics WDFW could include in its plan. In general, an adaptive management plan needs to include all relevant factors that could change and/or be manipulated based on a set of testable hypotheses. Adaptive management requires monitoring what is being managed (SRKW-vessel interactions), the response (such as SRKW population and presence in the Salish Sea), and other interacting and cumulative factors.⁵¹ The WSAS suggests several adaptive management strategies WDFW could consider, including use of a quota system to regulate the density of CWW vessels around SRKWs; issuance of special protections for particularly vulnerable orcas; or implementation of no-go or slow-go zones.⁵²

Adaptive management metrics are most useful when they are simple, clear, and associated with a specific assessable goal. Ideally, the SRKW population would steadily increase in alignment with federal and state recovery goals and objectives; however, any increases are likely to be the result of many variables including the broader, cumulative efforts to protect SRKW.⁵³ There are currently no reliable indicators (or metrics) for short-term adaptive management available, and it will be difficult to connect population growth or decline to the CWW rules given the variety of stressors affecting SRKWs.⁵⁴ In addition, SRKW population responses are unlikely to be observable in the near-term. Therefore, SRKW

⁴⁹ US Department of the Interior, "What is Adaptive Management?"

⁵⁰ Washington State Academy of Sciences, "Q&A," 10.

⁵¹ Washington State Academy of Sciences, "Summary of Key Research Findings," 14.

⁵² *Ibid.*, 14-18.

⁵³ Federal recovery goals, objectives, and strategies are described in National Marine Fisheries Service, "Federal Recovery Plan," State SRKW recovery goals and plans are described in Purce and Solien, "Southern Resident Orca Task Force."

⁵⁴ Washington State Academy of Sciences, "Summary of Key Research Findings," 5.

behavioral and physiological changes are the best short-term measures to help WDFW adaptively manage the CWW rules. Examples of specific metrics include: SRKW habitat use, foraging time, stress and hormone levels, and body condition.⁵⁵

WDFW plans to have an adaptive management strategy in place when the rules are implemented. An analysis and report will be shared with the governor and the Legislature on the effectiveness of and any recommendations for changes to the whale watching rules by November 30, 2022, and every two years thereafter until 2026. Any significant changes to the nature and extent of the CWWLP rules as a result of adaptive management, including any potential changes to components in the final action, would likely be made during this review cycle.

Formation and Implementation of the Final Action, Including Variable, or Nested, Components

As stated above, the final action chosen by WDFW may not be identical to any single alternative; it may be a hybrid that combines different components from several alternatives. The thirteen components under consideration could be combined, or nested. For example, WDFW may choose a more restrictive option for one component and a less restrictive option for another component.

Components could also be variable under differing conditions. For example:

- The number of CWW vessels permitted in the vicinity of SRKWs could differ by season;
- The number of CWW vessels permitted in the vicinity of SRKWs could differ based on geographic area; or
- CWW hours of operation could differ seasonally.

Combining components will allow WDFW to implement a nuanced licensing program that increases the effectiveness of rules for commercial whale watching in terms of reducing daily and cumulative impacts on SRKWs (thus increasing conservation benefits) while reducing impacts on small businesses. For example, the number of CWW vessels that can view SRKWs at one time could be limited differently based on season, so that CWW restrictions apply when they would most benefit SRKWs. In this scenario, vessels might be more limited in the spring and less limited in the winter. This scenario benefits SRKWs more than a blanket number of vessels that applies year-round because SRKWs would experience less disturbance during critical foraging time in the spring than during seasons of more robust health or when SRKWs are typically outside of Washington state.

WDFW could use multiple management techniques to implement combinations of components to further take advantage of the conservation and operational flexibility benefits. An example that could reduce SRKWs exposure to vessel noise and disturbance might entail WDFW holding a permit drawing in which a certain number of license holders are permitted to view SRKWs on any given day or time frame. Another example that could help allocate SRKW-viewing privileges among CWW operators might entail WDFW allotting a certain number of SRKW viewings per year or season to license holders.

⁵⁵ Washington State Academy of Sciences, "Q&A," 11.

Potential Rulemaking Components Considered, but Not Analyzed

The FEIS alternatives do not include actions or components that are not feasible at this time. An action that is considered not feasible is one that falls outside the scope of WDFW’s legislative mandate, such as placing a year-round moratorium on all CWW operations (regardless of whether they view SRKWs or not) or changing fisheries management practices.

Some of the public comments submitted during the EIS scoping process suggested that WDFW consider requiring and/or incentivizing CWW operators to install noise-reducing technology on motorized vessels. Noise-reducing technology might include switching to hybrid or electric motors or installing different propulsion systems on motorized CWW vessels. Noise-reducing technology is not included as an alternative component because industry-wide installation is anticipated to take a long time for implementation and potentially be cost prohibitive for some CWW operators. This type of measure may be considered in the future as part of adaptive management of the rules based on best available science and/or as new propulsion technologies are developed.⁵⁶ All other potential EIS components raised during scoping that are within the scope of the EIS are included in the alternatives and/or mitigation measures, which are discussed in the next chapter.

⁵⁶ Washington State Academy of Sciences, “Q&A,” 4.



III: Affected Environment, Impacts, and Mitigation Measures

Affected Environment

The affected natural environment for all four alternatives is the SRKWs' habitat in Washington's inland marine waters, which includes all of Puget Sound, the Strait of Juan de Fuca, and Southern Georgia Strait, wherever SRKWs forage, rest, and socialize in Washington State (see Figure 1: Map of the Salish Sea). The affected built environment for all four alternatives includes the recreation opportunities provided by CWW operations.

SEPA provides a comprehensive list of 16 environmental elements to be considered in an EIS analysis; however, the EIS must evaluate only the elements that apply to the proposal (WAC 197-11-960). The alternatives described in FEIS Chapter 2: *Alternatives*, could have significant impacts on two SEPA environmental elements:

1. **Animals**, specifically SRKWs and the impacts of noise and disturbance from CWW vessel traffic, and
2. **Recreation**, specifically recreators (i.e., customers who choose to participate in commercial whale watching), commercial whale watching opportunities, and participant experience.

The alternatives may also impact two additional SEPA environmental elements: air and water. Research from the last decade indicates vessel exhaust is one of the pollutants in the marine environment that can reduce orca immunity and cause reproductive stress.⁵⁷ If the CWWLP restricts CWW vessel operation, the amount of air and water pollution associated with CWW activity (e.g., vessel engine emissions) will likely be reduced if motorized vessels are used less. However, these impacts are not

⁵⁷ Washington State Academy of Sciences (citing Lachmuth et al 2011, and Lundin et al 2018), "Summary of Key Research Findings," 10.

considered significant because CWW operations represent a small portion of overall vessel traffic and likely do not contribute much to the air and water pollution in the affected environment.

Analysis Limitations

Uncertainty

The FEIS analysis of significant environmental impacts on SRKWs and whale watching activities is based primarily on the best-available science resources identified by the WSAS independent science panel. In its June 2020 Q&A document prepared for the CWWLP Advisory Committee, the science panel acknowledged the difficulty in providing conclusive information due to inherent uncertainties in current evidence about the SRKWs and the magnitude of impacts from disturbance and noise from small vessels and CWW on SRKWs. In the WSAS Summary of Key Research Findings, the science panel notes that the differences in scientific studies such as study age, sample size, and other limitations lead to uncertainty in answers regarding vessel disturbance of SRKWs.⁵⁸ In addition, the CWWLP is limited in its scope to restrictions on CWW license holders, but SRKWs also experience noise and disturbance from other types of vessels such as private recreational and shipping vessels. It is difficult to differentiate overall impacts among particular types of vessels. Given these limitations, the FEIS cites specific information regarding impacts when possible, explicitly states assumptions that are based on the information available, and clearly identifies instances when the extent of impacts cannot be determined or are unknown.

Potential Unintended Consequences

The CWWLP could result in unintended negative impacts on SRKWs. For example, a licensing program that limits the duration and number of CWW vessels near SRKWs could distribute disturbance and noise across a greater number of SRKW groups or individuals if it leads to more vessels cycling in or out of the vicinity of SRKWs or queuing for a turn.⁵⁹ Additionally, recreators could transition from CWW-operated tours to using private recreational vessels. This could result in an increase in the number of private recreational vessels around SRKWs. Another example is the addition of designated no-go zones could cause a larger burden of vessels on a smaller number of whales foraging at the farther distance. Large male SRKWs often forage farther offshore and an expanded area could impact their foraging efforts.⁶⁰ Furthermore, SRKW viewing restrictions might redistribute air and water quality impacts because CWW vessels may travel further to view different species.

Impacts on Animals: SRKWs

This section assesses the impacts each of the FEIS alternatives could have on SRKWs, particularly the extent to which the alternatives have the potential to reduce the daily and cumulative impacts of vessel noise and disturbance on SRKWs relative to the current CWW status, which does not include regulations other than those already in place for all Washington vessels (as captured in Alternative 4, the No Action Alternative). Key information used to estimate the impact of the alternatives on SRKWs includes:

- SRKWs are affected by the presence and general disturbance of vessels, including non-motorized vessels such as kayaks.⁶¹

⁵⁸ Washington State Academy of Sciences, "Summary of Key Research Findings," 1.

⁵⁹ Washington State Academy of Sciences, "Q&A," 10.

⁶⁰ Washington State Academy of Sciences, "Review of Proposed Rules," 4.

⁶¹ Washington State Academy of Sciences, "Q&A," 7

- Vessel presence can elicit SRKW behavioral disruptions such as increased surface-active behaviors, changes in swimming patterns, and reduced foraging behavior.⁶²
- Research conducted off of Vancouver Island noted that Northern Resident Killer Whales change their activity state when in the presence of more than three boats.⁶³ Northern Residents are part of the same resident killer whale ecotype as SRKWs and also live in communities of matriline, but Northern Residents predominately range from southern Alaska to Washington and are often sited in Johnstone Strait, the northeastern part of Vancouver Island.^{64, 65}
- SRKWs are not only affected by the general presence of vessels but the time spent around vessels. Reducing time spent around vessels would reduce daily and cumulative exposure to noise and disturbance, therefore reducing daily and cumulative impacts.⁶⁶
- SRKWs use echolocation to locate their prey.⁶⁷
- Vessel noise has significantly raised the background noise levels in the Salish Sea.⁶⁸ The raised background noise level is in the frequency range that SRKW use for echolocation and communication with each other.⁶⁹
- Large disturbance effects occur as vessels get closer to SRKWs.⁷⁰ Noise levels are reduced when the time with SRKWs and the number of vessels and their speed are reduced.⁷¹
- Vessel noise research conducted in the Salish Sea examined noise contributions from a range of large to small vessels. Small crafts such as whale watching, recreational boaters, and fishing vessels have a small overall contribution but are important contributors to sub-regions (e.g., Haro Strait and the San Juan Islands) because they gather in greater numbers.⁷² In this research, CWW represented 4.6% of relative noise contribution in Haro Strait during the summer, and 1.0% of relative noise contribution in San Juan Island area during the winter.⁷³ While CWW makes up only a small fraction of the overall noise in SRKW habitat, the noise experienced by SRKW may be higher due to the fact that these boats regularly approach whales and may remain in the vicinity for longer periods of time than some other categories of vessels.
- As cited in the Washington State Academy of Sciences “Summary of Key Research Findings,” the science is not fully established to make direct cause-and-effect relationships between certain vessel interaction and behaviors and SRKWs. However due to the fragile condition of SRKWs and their population, each interaction with a SRKW is taken as opportunity to disturb the animal and the WSAS Science Panel recommends taking a precautionary management approach.⁷⁴

This section focuses on impacts to the ESA-listed species in the affected environment, the SRKWs. Many of the actions WDFW is considering, including limitations on CWW operating days and times, could also reduce noise and disturbance impacts of CWW on other wildlife species. The overall effects of SRKW-

⁶² Washington State Academy of Sciences, “Q&A,” 7.

⁶³ Williams and Ashe, “Killer whale evasive tactics,” 394.

⁶⁴ Fisheries and Oceans Canada. “Killer Whale (Northeast Pacific Northern Resident Population).”

⁶⁵ Ibid

⁶⁶ Washington State Academy of Sciences, “Q&A,” 9.

⁶⁷ Au et al., “Echolocation signals,” 901.

⁶⁸ Veirs and Veirs, 2005, as cited in “Washington State Academy of Sciences, “Summary of Key Research Findings,” 7.

⁶⁹ Au et al. 2004 and Veirs et al. 2016, as cited in “Washington State Academy of Sciences, “Summary of Key Research Findings,” 9.

⁷⁰ Washington State Academy of Sciences, “Summary of Key Research Findings,” 11.

⁷¹ Ibid, 16.

⁷² MacGillivray et. al., “Regional Ocean Noise Contributor Analysis,” 18.

⁷³ Ibid, 15.

⁷⁴ Washington State Academy of Sciences, “Summary of Key Research Findings,” 4.

viewing limitations on other wildlife is unclear, in part because the nature and extent of CWW activity could shift based on any new restrictions.

Alternative 1

Alternative 1 is associated with the **most conservation benefits** for SRKWs, as CWW operation and vessel activity is restricted more under Alternative 1 than any other alternative. This alternative would likely result in the most substantial reductions in daily and cumulative noise and disturbance impacts to SRKWs from CWW vessels, particularly from the components that limit vessels around SRKWs and the times for CWW operations and SRKW viewing, assuming the limitations apply to the peak whale-watching season or year-round. Under Alternative 1:

- CWW vessels are limited to 0 to 2 in the vicinity of SRKWs:* In Alternative 1, the minimum number of vessels is 0 and the maximum number of vessels is 2. Based on data from Soundwatch, in 2019 there was an average of 5 CWW vessels in the vicinity of SRKWs.⁷⁵ In Alternative 1, the number of CWW vessels is reduced by 3-5 CWW vessels. The science indicates that fewer vessels around SRKWs are better for them.⁷⁶ However, information on impacts from fewer than 3 vessels is not available in the scientific literature, so it is not possible to quantify differential impacts to SRKWs between 1 and 3 vessels.⁷⁷ As the number of vessels increase, particularly with three or more, there is likely a greater negative impact on SRKWs.⁷⁸ As cited by the Washington State Academy of Sciences, a greater number of boats results in greater radiated noise levels and leads to greater behavioral impacts.⁷⁹ The presence of more vessels has a cumulative effect on the physiological stress in SRKWs and is amplified especially during years of relatively low Fraser River Chinook abundance.⁸⁰ Limiting the number of CWW vessels in the vicinity of SRKWs to 0 to 2 will result in the most significant reduction of adverse impacts from CWW vessels on SRKWs among the alternatives.
- CWW vessels are limited to spending 0 to 15 minutes in the vicinity of SRKWs:* PWWA's current best practice is for CWW vessels to spend no more than 60 minutes viewing SRKWs. Assuming CWW operators follow this best practice and SRKW-viewing times are 60 minutes long, Alternative 1 would reduce SRKW viewing time by 75% to 100% of the current viewing best practices and therefore result in a dramatic reduction in noise and disturbance impacts from CWW to SRKWs. Reducing the amount of time CWW vessels can spend around SRKW to 0 to 15 minutes would decrease daily and cumulative SRKW exposure to noise and disturbance from CWW vessels.⁸¹
- CWW operation is limited to specific hours of the day, number of days per week, and/or seasons:* Under Alternative 1, CWW operation would be limited to 0 to 4 hours per day, 0 to 2 days per week, for 8 to 11 months of the year. This alternative reduces the days and hours for CWW operation the most from current practice (with most whale watching occurring 9 hours/day and during the summer months) and would result in the most significant daily and cumulative reductions in vessel noise and disturbance impacts to SRKWs of all the alternatives. It is assumed that limited CWW operation would have a similar impact on SRKWs to limited SRKW

⁷⁵ Shedd, et al., "2019 Soundwatch," 30.

⁷⁶ Washington State Academy of Sciences, "Q&A," 5.

⁷⁷ Washington State Academy of Sciences, "Q&A," 2.

⁷⁸ Ibid, 3-4.

⁷⁹ Washington State Academy of Sciences, "Summary of Key Research Findings," 13.

⁸⁰ Ibid, 5.

⁸¹ Washington State Academy of Sciences, "Q&A," 9.

viewing. For example, if CWW is limited to two days per week, the impact on SRKWs would likely be the same as limiting SRKW viewing days to two per week. In this scenario, days available for CWW operations are reduced by a minimum of 71% (operating 2 instead of 7 days/week) as well as SRKW viewing, assuming the restrictions are in place during the peak whale-watching season or year-round.

- *SRKW viewing is limited to specific hours of the day, number of days per week, and/or seasons:* Alternative 1 limits timeframes for CWW vessels to view SRKW to 0 to 4 hours per day, 0 to 2 days per week, and 0 to 4 months per year. Under Alternative 1, SRKW viewing days are reduced by at least 71% per week and hours of the day are reduced by at least 55% compared to when most CWW currently occurs, assuming restrictions are in place during the peak whale-watching season or year-round. These limitations and reductions in viewing hours, days, and months of the year would reduce the SRKWs' overall exposure to CWW vessels more than the other alternatives, thereby reducing noise, disturbance, and significant negative impacts.⁸²
- *CWW vessels comply with several adaptively managed restricted access areas or no-go zones:* Eliminating CWW vessel presence in areas of SRKW-preferred habitat, including the west side of San Juan Island, will likely reduce incidents of vessel disruption to SRKWs' typical activities. Restricted access areas such as these have been implemented in New Zealand. In order to reduce vessel interactions with a critically endangered population of bottlenose dolphins, the New Zealand Department of Conservation created no-go zones. This approach has resulted in the significant reduction in time and length of interactions that dolphins share with boats.⁸³ Therefore, it is assumed that with more restricted areas that are selected, designed, and adaptively managed to consider the foraging and habitat needs for SRKWs, incidents of vessel disruption may decrease. The specific anticipated impacts of additional restricted areas would depend on which areas WDFW selects.
- *CWW vessels turn off sonar or echolocation devices within half a nautical mile of SRKW:* Turning off sonar or echolocation devices (or setting them to 200kHz mode) would reduce the noise emitted into the water column that could interfere with SRKWs' echolocation.⁸⁴
- *CWW vessels report and/or provide documentation of SRKW location and presence:* Reporting the location of SRKW would benefit whale management and may have an indirect positive impact on SRKWs, as it could allow WDFW to increase its enforcement presence around SRKWs in general as well as support overall monitoring, evaluation, and adaptive management of the CWWLP. Reporting can help notify maritime operators such as ferries, tugboats, and ships of nearby SRKWs.
- *Additional non-motorized vessel regulations:* In addition to codifying KELP best practices, kayak-specific regulations might include prohibiting kayak launches or staying within 100 yards of shore when SRKWs are in the vicinity. The prohibition on launching into an oncoming group of SRKW would likely decrease interaction between SRKWs and vessels which would decrease disturbance.⁸⁵
- *Use of AIS:* Alternative 1 requires all CWW vessels, both motorized and non-motorized, to have AIS installed and turned on when operating tours, regardless of whether they are viewing

⁸² Ibid, 9.

⁸³ Ibid, 10.

⁸⁴ Ibid 6.

⁸⁵ Washington State Academy of Sciences, "Review of Proposed Rules," 4.

SRKWs or not. Tours with non-motorized vessels, such as kayaks, can meet this requirement by having AIS installed on one boat per tour. The use of AIS on CWW vessels could enhance SRKW management as it could inform WFDW Enforcement on vessel density around SRKWs and allow increased enforcement and compliance monitoring of CWW vessels. These data could also help answer many scientific questions on orca movement patterns based on vessel density and movement, and enhance conservation efforts.⁸⁶

The exact extent to which the SRKWs may benefit from the Alternative 1 restrictions is unknown. However, it is likely that the cumulative effect of the restrictions, with any mitigation measures WFDW pursues, would have the most beneficial impacts on the SRKWs of all the alternatives.

Alternative 2

The management strategies of Alternative 2 would have **some conservation benefits** for SRKWs; Alternative 2 reduces more daily and cumulative SRKW exposure to vessel noise and disturbance compared to Alternatives 3 and 4, particularly through limits to CWW operational times and SRKW viewing days/hours, but is less restrictive to CWW (and would provide less conservation benefits) compared to Alternative 1. Under Alternative 2:

- CWW vessels are limited to 3 to 4 in the vicinity of SRKWs:* Assuming restrictions are in place during peak whale-watching season or year-round, Alternative 2 would reduce the number of CWW vessels in the vicinity of SRKWs by 1-2 (20-40%) less than the annual daily average in recent years; on peak viewing days this would represent a greater restriction of CWW vessels.⁸⁷ Since all vessels contribute to vessel noise and disturbance impacts to SRKWs, it is difficult to estimate the effects of reducing CWW vessel numbers only. As described in analysis of the number of vessels component in Alternative 1, the presence of vessels, including non-motorized vessels such as kayaks, can elicit SRKW behavioral disruptions. Because Northern Resident Killer Whales change their activity state when in the presence of more than three boats, it is assumed SRKWs do the same.⁸⁸ Alternative 2 allows more CWW vessels in the vicinity of SRKWs than Alternative 1, but fewer than Alternatives 3 and 4, so would likely be less beneficial at reducing daily and cumulative noise and disturbance impacts to SRKWs than Alternative 1, but more beneficial than Alternatives 3 and 4.
- CWW vessels are limited to spending 16 to 45 minutes in the vicinity of SRKWs:* Under Alternative 2, CWW vessels can spend more time with SRKWs, which would likely increase their exposure to noise and disturbance compared to Alternative 1. The current best practices from PWWA include a 60-minute viewing period unless there are more than 9 PWWA vessels, when PWWA vessels limit their viewing to 30 minutes. Under Alternative 2, vessels would reduce their operational viewing time by 25-73% compared to the 60-minute best practice. If there are more than 9 vessels, the mid-point of this component aligns with the current best practices. Reducing the time vessels spend around SRKWs could reduce daily and cumulative impacts from noise and disturbance.⁸⁹ Vessels staying with SRKWs for the upper end of the time range (i.e., 45

⁸⁷ Shedd, et al., "2019 Soundwatch," 30.

⁸⁸ Williams and Ashe, "Killer Whale evasive tactics," 394.

⁸⁹ Washington State Academy of Sciences, "Q&A," 9.

minutes) would generally disturb SRKWs more than if they stayed at the lower end of the time range.

- CWW operation is limited to specific hours of the day, number of days per week, and/or seasons:* Under Alternative 2, CWW operation is limited to 4 to 8 hours per day, 3 to 5 days per week, during a 4- to 7-month window. As the number of hours and days of operation increase, it is assumed there could be more noise and disturbance and therefore more potential impacts on SRKWs. Under Alternative 2, the number of operational days is reduced by 28% to 57% and the hours per day is reduced by 11% to 55% (assuming a nine-hour viewing time and that the restrictions are in place during peak whale-watching season or year-round). Given these time reductions, this alternative would likely be less beneficial at reducing daily and cumulative noise and disturbance impacts to SRKWs than Alternative 1, but more beneficial to SRKWs than Alternatives 3 and 4.
- SRKW-viewing is limited to specific hours of the day, number of days per week, and/or seasons:* Alternative 2 limits the timeframe for CWW vessels to view SRKWs to a 4-to 8-hour daily window, 3 to 5 days per week, and has variable restrictions on SRKW viewing depending on the time of year. Alternative 2 also has additional restrictions on SRKW viewing during a 4- to 7-month specified annual window, and allows for additional restrictions on the days, times, locations, vessels, and/or areas for viewing SRKW during this period. Alternative 2's time ranges for viewing SRKWs are almost double the time allowed in Alternative 1 and CWW vessels could have as many as 5 more days per week to view SRKWs compared to in Alternative 1. As most vessels view SRKWs between 9:00 AM-6:00 PM (see Figure 3) for a total of 9 hours per day, Alternative 2 would reduce operational viewing hours by 11% to 55% if SRKW are present in the Salish Sea, assuming the restrictions are in place during the peak whale-watching season or year-round. The daily, weekly, and seasonal time frame reductions in SRKW viewing in Alternative 2 would likely be less beneficial in reducing CWW noise and disturbance impacts to SRKWs compared to Alternative 1, but more beneficial than Alternatives 3 or 4.
- CWW vessels comply with several adaptively managed restricted access areas or no-go zones:* Similar to Alternative 1, Alternative 2 would establish restricted access areas or no-go zones, including the west side of San Juan Island, but there would be fewer restricted areas compared to Alternative 1. The additional restricted areas (other than the west side of San Juan Island) in this alternative have not yet been specified but would be based on factors such as SRKW foraging patterns. No-go zones allow SRKWs to forage without disturbance from CWW in the zone. The WSAS science panel noted that no-go zones would need to be regularly reviewed as part of an adaptive management plan because SRKWs could change forage areas based on prey availability.⁹⁰
- CWW vessels report and/or provide documentation of SRKW location and presence:* In Alternative 2, CWW operators are required to report SRKW locations when they see private recreational vessels in the vicinity of SRKWs. Alternative 2 does not have as many reporting requirements as Alternative 1 and does not require a log of SRKW sightings, viewing, or other on-the-water observations.

⁹⁰ Washington State Academy of Sciences, "Review of Proposed Rules," 4.

- *Additional non-motorized vessel regulations:* In Alternative 2, the kayak-specific regulations include codifying some or all of the KELP best practices. Since these are already best practices, codifying the practices may not represent much change from the No Action Alternative (Alternative 4); however, there could be some increased awareness of how to maintain an appropriate distance from SRKWs. Alternative 2 would likely be less beneficial to SRKWs in terms of reducing vessel disturbance than Alternative 1, as it does not have additional restrictions such as prohibiting launching into oncoming SRKWs.
- *Use of AIS:* Alternative 2 requires all motorized CWW vessels to have AIS installed and turned on when operating tours, regardless of whether they're viewing SRKWs or not. Alternative 2 AIS requirements are less stringent than those of Alternative 1 because non-motorized CWW vessels are not required to use AIS. However, the SRKW management benefits are likely to be similar between Alternatives 1 and 2. This conclusion is based on the assumption that motorized CWW vessel data is more indicative of orca locations than non-motorized vessels because they are under power and have the ability to move more closely with orcas (whereas non-motorized vessels are unable to follow orcas quickly enough if they move).

The exact extent to which the SRKWs may benefit from the Alternative 2 restrictions is unknown. However, it is likely that the cumulative effect of the restrictions and any mitigation measures WDFW pursues would reduce daily and cumulative impacts of CWW vessel noise and disturbance on SRKWs. Alternative 2 reduces the opportunities for recreation and operating hours but reduces daily and cumulative impacts on SRKWs.

Alternative 3

Alternative 3 could have **less conservation benefits** on SRKWs. This alternative would likely result in the least substantial reductions in daily and cumulative noise and disturbance impacts to SRKWs from CWW vessels, since it represents the least amount of changes in CWW operations, SRKW viewing, and vessel numbers from the status quo. The management strategies of Alternative 3 are less restrictive than Alternatives 1 and 2, but more restrictive than current conditions (Alternative 4: No Action). Under Alternative 3:

- *CWW vessels are limited to 5 to 10 in the vicinity of SRKWs:* According to Soundwatch data, in 2018 and 2019 there was an average of five commercial vessels in the vicinity of SRKWs.⁹¹ The low end of the Alternative's range for number of vessels in the vicinity of SRKWs is similar to trends observed over the past two years. Within Alternative 3, the maximum number of CWW vessels allowed in the vicinity of SRKWs is ten, double the most recent year's average, which will lead to less reduction in noise and disturbance from CWW to SRKWs as compared to the minimum of five vessels. Alternative 3 could have some effects on reducing noise and disturbance impacts from CWW vessels during peak viewing times when there may otherwise be more CWW vessels operating; however, in many cases, the impacts may not represent much, if any, change from the status quo (Alternative 4). Alternatives 1 and 2 are anticipated to provide greater reductions in CWW vessel noise and disturbance impacts.
- *CWW vessels are limited to spending 46 to 60 minutes in the vicinity of SRKWs:* Alternative 3 triples or quadruples SRKW-viewing time compared to the time limits outlined in Alternative 1;

⁹¹ Shedd, et al., "2019 Soundwatch," 30.

it is similar to current PWWA viewing best practices for SRKWs. More time and vessel presence have a higher likelihood of contributing to SRKW behavioral changes such as reduced foraging, so this alternative is likely to have less beneficial impacts on SRKWs than Alternatives 1 or 2 but could have similar or slightly more beneficial impacts than Alternative 4.⁹²

- CWW operation is limited to specific hours of the day, number of days per week, and/or seasons:* In Alternative 3, CWW operations are limited from a 1- to 2-hour window after sunrise to 1 to 2 hours before sunset and CWW operations are restricted to 6 days per week. The hours of operations per day closely mimic the current hours of operations for CWW vessels, with the exception of sunset tours. Alternative 3 has additional CWW restrictions on days and/or hours of CWW operation for a 1- to 3-month window. Alternative 3 provides a potential reduction of all CWW vessel presence for certain days compared to Alternative 4. Alternative 3 is likely to be less beneficial to SRKWs compared to Alternatives 1 and 2 due to the increase in hours of the day, number of days per week, and the increase in operating season for all CWW operations. Alternative 3 does not provide SRKWs a break from CWW vessels during the daylight hours, when most SRKW foraging occurs.⁹³ This alternative would reduce CWW operating days by one day a week (14% reduction, assuming the restrictions are in place during peak whale-watching season or year-round) and therefore eliminate CWW vessel noise and disturbance on those days. This represents more noise and disturbance reduction than No Action (Alternative 4), but less than the other alternatives.
- SRKW-viewing is limited to specific hours of the day, number of days per week, and/or seasons:* In Alternative 3, CWW vessels have limited hours of the day in which CWW vessels can view SRKWs. SRKW-viewing hours are reduced 1 to 2 hours before sunrise and 1 to 2 hours after sunset. CWW vessels have restricted SRKW viewing 6 days per week with additional restrictions on SRKW viewing in a 1- to 3-month annual window. SRKWs' exposure to CWW vessels will be reduced by one day a week (by 14%, to 6 days, assuming the restrictions are in place during peak whale-watching season or year-round), which, as with CWW operations above, would provide some additional benefits to SRKWs compared to the No Action Alternative, but less than the other alternatives. The reduction in hours before sunrise and after sunset may not have an impact on SRKWs because CWW vessels do not typically view SRKWs outside of that time period. According to Soundwatch data, the "peak times of day" in 2019 were between 10:00 AM and 12:00 PM, which falls within Alternative 3's hours of operations, with most CWW occurring between 9:00 AM and 6:00 PM.⁹⁴
- CWW vessels comply with several adaptively managed restricted access areas or no-go zones:* Under Alternative 3, the existing voluntary west side of San Juan Island no-go zone when SRKWs are in the vicinity is codified. This restriction would allow SRKWs to forage in this area without the presence of CWW vessels and would likely benefit SRKWs compared to The No Action Alternative. Avoiding the west side of San Juan Island is already part of the PWWA's best practices, but codifying the voluntary no-go zone could strengthen the effect of the best practices and ensure that the no-go zone applies to all CWW vessels, including those that are not part of the PWWA. However, Alternative 3 does not include additional areas as outlined in Alternative 1 and 2 and potentially has fewer impacts since it includes just one area.

⁹² Williams and Ashe, "Killer Whale evasive tactics," 394.

⁹³ Washington State Academy of Sciences, "Review of Proposed Rules," 14.

⁹⁴ Shedd, et al., "2019 Soundwatch," 32-33.

- *CWW vessels report and/or provide documentation of SRKW location and presence:* CWW operators are required to report emergency situations, such as SRKW health or injury problems. These efforts could supplement information on the health and status of the SRKWs but would not provide as comprehensive an overview of the SRKWs compared to Alternative 1. Alternative 3 would likely benefit orca management less than Alternatives 1 or 2, as Alternative 3 only requires reporting when there is an emergency situation whereas Alternatives 1 and 2 require reporting of more information in additional circumstances. These emergency reports would need to be documented by trained naturalists who are able to identify the pod, orca activity state, and health and injury problems.⁹⁵

It is likely that the cumulative effect of the Alternative 3 restrictions and any mitigation measures WDFW pursues would have less success in reducing noise and disturbance impacts to SRKWs compared to Alternatives 1 and 2 but potentially more success than the No Action Alternative. As described, Alternative 3 has a lower likelihood of meeting the WDFW mandate because the alternative provides few benefits to SRKWs.

It is noted that many components in Alternative 3 are similar to current voluntary best practices; if operators currently follow best practices for those components, there may not be any discernible difference in reduction in vessel noise and disturbance impacts to SRKWs from Alternative 3 as compared to the No Action Alternative.

Alternative 4: No Action

The management strategies of Alternative 4 represent the current situation; WDFW would institute no restrictions for CWW operation and vessel activities. Alternative 4 is associated with the ***most significant adverse impacts and the least conservation benefits*** for SRKWs. Under Alternative 4:

- *The number of CWW vessels in the vicinity of SRKWs is unlimited:* Alternative 4 would likely contribute to large amounts of disturbance and noise towards SRKWs due to absence of a maximum limit for CWW vessels. As stated in Alternative 1, the presence of vessels impacts foraging and other behaviors by the SRKWs.⁹⁶ Alternative 4 would likely have the least beneficial impacts to the SRKWs compared to Alternatives 1, 2, and 3.
- *CWW vessels have unlimited time in the vicinity of SRKWs:* The current PWWA best practice is for CWW vessels to spend 60 minutes around orcas unless there are more than 9 PWWA vessels within 1km, in which case the best practice is 30 minutes. The Be Whale Wise guidelines recommend only 30 minutes for viewing whales and other marine wildlife. If followed (which cannot be assured), the voluntary best practices in Alternative 4 would allow viewing times in the range of either Alternative 2 (30 minutes) or Alternative 3 (60 minutes), depending on which guidelines are followed and under what conditions. In either case, this represents more time with SRKWs than Alternative 1. Increases in time are assumed to increase the disturbance on SRKWs. Since implementation of voluntary guidelines cannot be assumed, Alternative 4 is likely to have the least beneficial impact on SRKWs of all the alternatives given the unlimited amount of time CWW vessels can spend in the vicinity of SRKWs.

⁹⁵ Washington State Academy of Sciences, "Summary of Key Research Findings," 16.

⁹⁶ Washington State Academy of Sciences, "Q&A," 7.

- *CWW operation is unlimited for hours, days, and/or seasons:* Within Alternative 4, CWW operations are unlimited and there are no restrictions on the hours of operation, days of CWW operations, and CWW operating seasons. Even though CWW vessels may not directly pursue SRKWs, the mere presence and noise could impact SRKWs, especially without additional restrictions on SRKW viewing.
- *SRKW viewing is unlimited:* If there are unlimited number of hours, SRKWs will not be provided a break during the daytime hours from interactions with CWW vessels.⁹⁷ In Alternative 4, SRKWs could potentially be interacting with CWW vessels all day and week, which likely impacts their foraging behaviors and general communication.⁹⁸
- *CWW vessels do not have any restricted access zones:* In Alternative 4, CWW vessels do not have any restricted access zones, but there is a voluntary no-go zone on the west side of San Juan Island for motorized CWW vessels in Be Whale Wise and PWWA best practices. This no-go zone is not codified. Alternative 4 would be similar to Alternative 3 in disturbance impacts to SRKWs if all CWW vessels abided by the Be Whale Wise and PWWA best practices; however, if CWW vessels did not abide by the restrictions, the disturbance impacts could be greater in Alternative 4.
- *CWW vessels do not have sonar or echolocation device restrictions when operating tours:* In Alternative 4 (and Alternatives 2-3), CWW vessels are not required to turn off sonar or echolocation devices while operating tours. Sonar and echolocation devices could potentially interfere with SRKWs' echolocation clicks, communication, and foraging abilities. PWWA guidelines recommend turning off sonar and echolocation when within 1 km of whales, which is similar to the action included in Alternative 1. The extent to which the No Action Alternative for this component differs in its potential impact to SRKWs from Alternative 1 depends on compliance with this existing best practice.
- *CWW vessels do not have reporting requirements for SRKWs:* In Alternative 4, CWW vessels do not have any reporting requirements for CWW operators; however, some CWW vessels voluntarily report SRKW presence and location to WDFW Enforcement, SoundWatch, and/or WRAS. This voluntarily reported information could have some indirect benefits for SRKWs by supporting WDFW in implementation of the CWWLP, but it represents less information than WDFW anticipates receiving under the reporting requirements in Alternatives 1, 2, or 3.
- *Additional non-motorized vessel regulations:* In Alternative 4, there are no kayak-specific regulations and the KERP best practices are voluntary. The impacts on SRKWs is uncertain and could potentially be maintained from previous years.
- *Use of AIS:* Currently there are no CWW-specific requirements related to the use of AIS. Approximately 50% of CWW vessels have AIS installed per US Coast Guard requirements for vessels 65 ft and above.⁹⁹

SRKWs would be harmed by the cumulative effects of little to no CWW vessel restrictions. Alternative 4 reflects the status quo and in some of the components such as time limits go against PWWA's current best practices. SRKWs are already in critical condition and if this Alternative were to be pursued, it

⁹⁷ Washington State Academy of Sciences, "Review of Proposed Rules," 4.

⁹⁸ *Ibid.*, 4.

would be the least effective alternative to reduce noise and disturbance impacts on SRKWs. Alternative 4, on its own, does not meet WDFW’s legislative mandate because it does not reduce noise or disturbance of CWW vessels on SRKWs from the status quo.

Impacts on Recreation: Commercial Whale Watching Recreators

This section assesses the impacts that each of the FEIS Alternatives could have on CWW opportunities and the participant experience for recreators (not operators) who choose to participate in commercial whale watching, including motorized vessels and kayak tours. The alternative analysis is relative to the current CWW status which does not include regulations other than those already in place for all Washington vessels (as captured in Alternative 4, the No Action Alternative). Key information used to estimate the impact of the alternatives on recreation includes:

- PWWA representatives estimate that only 10% of CWW tours currently view SRKWs.¹⁰⁰
- For the past 20 years, the average daily number of vessels around orcas in Haro Strait from May to September has been 17 vessels, including 9 CWW vessels and 6 private recreational vessels.¹⁰¹
- In 2018-19, there were fewer vessels around orcas in U.S.-Canada boundary waters between May and September, with a daily average of 5 CWW vessels, 3 private recreational vessels, and 1-2 kayaks (see Figure 2).¹⁰²
- The number of vessels around orcas varies during the season, and the peak number of vessels can be much higher than the annual average. In 2019, the highest number of vessels around orcas occurred in July, when there were as many as 26 private recreational vessels, 18 ecotour vessels (motorized CWW operators), and 13 kayaks.¹⁰³
- Most CWW trips for U.S.-based PWWA members currently occur between 9:00 AM and 6:00 PM, but some operators offer evening or sunset tours that last as late as 9:30 PM.¹⁰⁴
- CWW operators in the San Juan Islands typically offer whale watching tours that last 3 to 4 hours, with some operators offering longer tours (e.g., full-day kayak tours or 4.5-hour tours).¹⁰⁵
- Whale watching viewership overall and revenues have increased in recent years, even with new restrictions in place in the U.S. and Canada:
 - In 2019, Canadian-based members of PWWA signed an agreement with the Government of Canada to refrain from promoting tours on SRKWs or viewing SRKWs if encountered when in transit. Despite this agreement, whale watching viewership *increased* by 7.6% from 2018 to 2019 with the new restrictions in place.¹⁰⁶
 - Revenues for U.S.-based members of PWWA also increased since 2011, even after new federal vessel traffic regulations went into effect in 2012 and while SRKWs were declining.¹⁰⁷

¹⁰⁰ Personal communication with Kelley Balcomb-Bartok and Jeff Friedman, Pacific Whale Watch Association on June 5, 2020, as cited in Industrial Economics, Inc. (IEC), “Economic Viability”, 15.

¹⁰¹ Shedd, et al., “2019 Soundwatch,” 30.

¹⁰² Ibid, 30.

¹⁰³ Ibid, 33.

¹⁰⁴ Industrial Economics, Inc. (IEC), “Economic Viability”, 21.

¹⁰⁵ Review of Washington state PWWA member websites, July 2020.

¹⁰⁶ Industrial Economics, Inc. (IEC), “Economic Viability”, 16.

¹⁰⁷ Industrial Economics, Inc. (IEC), “Economic Viability”, 15.

WDFW's CWWLP actions would not apply to either land-based whale watching or whale watching on private recreational vessels. It is unclear to what extent, if any, the restrictions in commercial whale watching activity in the alternatives that WDFW is considering would result in any changes to land-based or general whale watching activity.

Alternative 1

Alternative 1 could have the ***most significant adverse impacts on the opportunities for commercial whale watching*** of all the alternatives, as it would place the most limitations on CWW and SRKW viewing. Although WDFW has indicated that it does not intend to impose a moratorium on CWW, this alternative has the highest likelihood of adverse impacts to CWW operations and recreators if the more restrictive ends of the ranges are selected (e.g., shortest time allowances for overall CWW operations).. Alternative 1 management strategies and anticipated potential impacts on CWW recreational opportunities are described below.

- *CWW vessels are limited to 0 to 2 in the vicinity of SRKWs:* Alternative 1 would represent a very large (60-100%) decrease from both the average of 5 CWW vessels and the maximum of 18 motorized CWW vessels around orcas that occurred in 2019, assuming the restrictions are in place during peak whale watching season or year-round. However, this alternative would not restrict vessels in the vicinity of other whales and/or marine wildlife and would apply only to the very small portion of CWW tours that view SRKWs. For this reason, although it would be a large reduction in the average number of CWW vessels allowed to view SRKWs at a time compared to 2019 levels, the impact to CWW recreators overall is not anticipated to be significant because only a small portion of tours view SRKWs, despite the reduced opportunity to view SRKWs specifically.
- *CWW vessels are limited to spending 0 to 15 minutes in the vicinity of SRKWs:* This component would only affect viewing time for SRKWs, which applies only to the very small proportion of tours that view SRKWs. This would place the smallest time limit on SRKW viewing of any alternative, but the remaining majority of CWW activity, including viewing transient orcas, would not be affected, so the impact to CWW tour participants overall is not anticipated to be significant.
- *CWW operations would be restricted seasonally for 8 to 11 months; this could include limiting CWW operations to 0 to 2 days per week and/or limiting CWW operations to a 0- to 4-hour per day window:* Most CWW in Washington occurs during the summer season, from May through September, although whale watching is a year-round activity, so restrictions in CWW for 8 to 11 months would likely cover this full busy period. Within this period, this alternative contains potential limits on the times and days for CWW operations:
 - Alternative 1 would result in the highest reduction in CWW activity by reducing the available days for CWW anywhere from 71% (2 days per week) to 100% (0 days per week) when the restrictions apply. This would have the most significant reduction of days of the week recreators could participate CWW opportunities of all the alternatives for this component.
 - Alternative 1 would reduce the available daily windows for CWW more than the other alternatives, to 0 to 4 hours per day, when the restrictions apply. Limiting CWW to a 4-hour or less window could limit CWW operators to conducting only one tour option a day or shortened tours, rather than offering options such as morning, afternoon, full-

day, and/or sunset/evening tours. A reduction in tour options does not necessarily correlate to a reduction in the total number of tours, since a tour operator could offer more tours (if they have more than one vessel) during fewer time slots. However, there would likely be some decrease in CWW activity as a result of this change, as well as the potential for a more crowded experience for whale watchers during tour times. At the lower end of the range, if CWW were limited to at or near zero hours per day, CWW tours would no longer be viable when the restrictions were in place. This would be the most significant adverse impact on CWW opportunities of all the alternatives for this component.

- *SRKW-viewing is limited to specific hours of the day, number of days per week, and/or seasons:* This alternative would specifically limit the days and hours that CWW vessels could view SRKWs to 0 to 2 days per week during a 0- to 4-hour daily window. These limitations could be applied on a seasonal basis anywhere from 8 to 12 months. In 2012, Federal vessel traffic regulations placed additional restrictions on SRKW.¹⁰⁸ After these restrictions, revenues from the U.S.-based CWW industry in Puget Sound increased from \$3.8 million in 2011 to \$10.2 million in 2018, a roughly 170% increase.¹⁰⁹ Additionally, the CWW fleet expanded from 22 vessels in 2011 to 49 vessels in 2016.¹¹⁰ Despite the additional restrictions on viewing SRKWs, the CWW industry was able to increase its fleet and revenues. The impacts of these SRKW-viewing limitations are not anticipated to significantly affect CWW opportunities in Washington.
- *CWW vessels comply with several adaptively managed restricted access areas or no-go zones:* Under this alternative, multiple geographic areas, including the current voluntary no-go zone on the west side of San Juan Island, would be closed to CWW. The specific geographic areas are not defined in the alternative, so the specific effects of this alternative on areas of recreational activity is uncertain. Depending on how extensive the additional geographic limitations are, including their size, the extent of overlap with current CWW areas, and the times when they apply during the year, there could be significant adverse effects on CWW opportunities from this component.
- *CWW vessels turn off sonar or echolocation within half a nautical mile of SRKW (when safe to do so):* Turning off sonar or echolocation devices in certain conditions would add a procedure for CWW operators, but this procedure is consistent with existing PWWA best practices. It would likely not change the CWW recreational experience for customers and therefore is assumed not to have a significant impact.
- *CWW vessels report and/or provide documentation of SRKW location and presence:* The reporting requirements for CWW operators would provide information to WDFW to help with its understanding of the status of SRKWs, monitoring of the CWWLP, and adaptive management of the program, but is not likely to change the whale watching recreational experience for customers.
- *Additional non-motorized vessel regulations:* The KELP best practices for kayakers, as documented in the 2011 Kayakers' Code of Conduct, represent voluntary guidelines for kayakers to assist in adhering to existing laws to protect orcas and other wildlife.¹¹¹ Codifying some or all of the KELP

¹⁰⁸ "Protective Regulations".

¹⁰⁹ Industrial Economics, Inc. (IEc), "Economic Viability", 16.

¹¹⁰ Ibid, 16.

¹¹¹ Whale Museum, "Responsible Kayaker Code," 1.

best practices is not anticipated to have much, if any, impact on recreation, given that it already represents best practices to support existing laws. Additional kayak-specific regulations that WDFW is considering beyond the KELP guidelines for this alternative could include more geographic restrictions for kayak tours (e.g., staying within 100 yards of shore on the West side of San Juan Island) and new requirements for kayaking in relation to SRKWs (e.g., not launching kayaks when SRKWs are in the vicinity). The examples of potential additional restrictions provided are not anticipated to have significant effects on commercial kayak tour participants, given that they pertain to SRKWs specifically and/or limit kayaks to being close to shore in certain geographic areas where they already are most often.

- *All CWW vessels, both motorized and non-motorized, operate AIS during tours:* The AIS requirement for CWW vessels would provide data that could enhance SRKW management practices, but it will not affect CWW operations or the whale watching recreational experience for customers.

Alternative 2

Alternative 2 management strategies could have ***some significant adverse impacts on recreators' opportunities*** to participate on a CWW tour. As a mid-range alternative, Alternative 2 is anticipated to have fewer adverse impacts on recreation than Alternative 1. However, Alternative 2 would still lead to more adverse impacts on recreation than Alternatives 3 and 4, given the level of restrictions on CWW. Under Alternative 2:

- *CWW vessels are limited to 3 to 5 in the vicinity of SRKWs:* The average number of CWW vessels in the vicinity of SRKWs is unknown. However, assuming the average number of CWW vessels in the vicinity of orcas (which averaged 5 in 2018-19), is the same average number of CWW vessels in the vicinity of SRKWs, Alternative 2 would reduce the number of CWW vessels able to be in the vicinity of SRKWs by up to two days (0-40%) from the average for the last two years, but would likely represent more reductions on peak viewing days. The reduction of SRKW viewing from CWW vessel limitations is not expected to significantly affect recreation because it is SRKW-specific, a small percentage of tours view SRKWs, and tours would still be able to view other marine life.
- *CWW vessels are limited to spending 16 to 45 minutes in the vicinity of SRKWs:* There is no data available about the average current length of time CWW vessels spend viewing SRKWs or other marine life (including adherence to the Be Whale Wise and PWWA guidelines). The mid-point of this alternative's range (30 minutes) is Be Whale Wise's recommended viewing time limit, as well as the maximum time allowed under PWWA guidelines when there are over 9 PWWA vessels in the vicinity of whales. This alternative would only limit the SRKW-viewing portion of a CWW tour, and a very small portion of tours view SRKW, so this is not anticipated to have a significant impact on CWW opportunities.
- *CWW operations are seasonally restricted for 4 to 7 months; this could include limiting CWW operations to 3 to 5 days per week and/or limiting CWW operations to a 4- to 8-hour per day window:* Seasonal restrictions under Alternative 2 may reduce the available days for CWW operations by approximately 29% (five days per week) to 57% (three days per week), assuming the restrictions are in place during peak whale-watching season. The low end of the seasonal hourly restriction, 4 hours per day, would have similar impacts on CWW operation as Alternative 1 and could limit CWW operators to conducting only one tour option a day. The higher end of

the seasonal hourly restriction, 8 hours per day, could accommodate most tours that currently happen during the day. However, CWW activity would likely decrease as a result of the days-per-week restriction and there would be the potential for a more crowded experience for whale watchers. This is anticipated to significantly reduce CWW opportunities when the restrictions apply.

- *SRKW viewing is limited to specific hours of the day, number of days per week, and/or seasons:* Alternative 2 restricts SRKW-viewing opportunities to a 4- to 8-hour window of the day, 3 to 5 days per week. These hourly/day restrictions may apply seasonally, during a 4- to 7-month timeframe. When the restrictions are in place, commercial SRKW-viewing opportunities could be reduced by over 50% (when considering the more restrictive end of the range), assuming the restrictions are in place during peak whale-watching season. Because only about 10% of CWW tours view SRKWs, the limited SRKW viewing is not expected to significantly affect recreation.
- *CWW vessels comply with adaptively managed restricted access areas or no-go zones:* Similar to Alternative 1, Alternative 2 calls for multiple geographic areas, including the current voluntary no-go zone on the west side of San Juan Island, to be closed to CWW. However, there would be fewer closed areas under Alternative 2 than Alternative 1. The specific effects of Alternative 2 area closures on recreational activity is uncertain and could be significant depending on the extent of geographic area closed, the overlap with current CWW areas, and when the restrictions apply.
- *CWW vessels report SRKW location and presence when private recreational vessels are in the vicinity of SRKWs:* Alternative 2 reporting requirements are not likely to change the whale watching recreational experience for tour participants.
- *Some or all of KELP best practices are codified:* Codifying some, or all, of the KELP best practices is not anticipated to have much, if any, impact on recreation, given that it already represents best practices to support existing laws. Although compliance with existing best practices cannot be assumed, a key purpose of the KELP best practices is to provide instructions on how to effectively comply with the 2011 federal vessel traffic and distance regulations. The impact of this component is not expected to be significant.
- *Motorized CWW vessels operate AIS during tours:* The AIS requirement for CWW vessels would provide data that could enhance SRKW management practices, but it will not affect CWW operations or the whale watching recreational experience for customers.

Alternative 3

Alternative 3 could have ***less significant adverse impacts on opportunities to participate in commercial whale watching*** of all alternatives WDFW is considering other than no action, as it would place less stringent restrictions on CWW. It would likely have more impacts to CWW than the no action alternative (Alternative 4), but fewer impacts than Alternatives 1 and 2. However, as noted under “animals” above, make its anticipated benefit to SRKWs much less likely. Under Alternative 3:

- *CWW vessels are limited to 5 to 10 in the vicinity of SRKWs:* The Alternative 3 vessel limitations fall within annual averages for recent years (5-8 from 2010, and 5 in 2018-2019) and would therefore have the most effects on limiting vessels on peak viewing days (e.g., in July) when vessel numbers may occasionally exceed this range. As this applies only to SRKW viewing and not all whale watching and falls within average vessel ranges, this is not anticipated to have a significant adverse impact on CWW opportunities.

- *CWW vessels are limited to spending 46 to 60 minutes in the vicinity of SRKWs:* This alternative would only limit the SRKW-viewing portion of a CWW tour, and only a small portion of tours view SRKWs. This range allows more time than the Be Whale Wise’s voluntary recommended viewing time limit (30 minutes) but would be similar to the maximum time allowed under the voluntary PWWA guidelines of 60 minutes when there are fewer than 9 PWWA vessels in the vicinity of whales. There is no data available about the average length of time CWW vessels spend viewing SRKWs or other marine life, so it is difficult to determine how SRKW-viewing time limits may impact recreation. Given that it applies only to SRKW viewing, it is not anticipated to have a significant adverse impact on CWW opportunities.
- *CWW operations would be restricted seasonally for 1 to 3 months; this could include limiting CWW operations to 6 days per week and/or limiting CWW operations to a timeframe that begins 1 to 2 hours after sunrise and 1 to 2 hours before sunset:* Seasonal restrictions under Alternative 3 may reduce the operational available days for CWW by approximately 14% (1 day). The hourly restriction could likely accommodate many tours that currently occur with the exception of sunrise and sunset tours. This is anticipated to have a small adverse impact on CWW opportunities, much less than the impacts from these components in Alternatives 1 and 2.
- *SRKW viewing is limited to specific hours of the day, number of days per week, and/or seasons:* Alternative 3 restricts SRKW-viewing opportunities to a timeframe that begins one hour after sunrise and ends one hour before sunset, 6 days per week. These hourly/day restrictions may apply seasonally, during a 1- to 3-month timeframe. As these restrictions apply only to SRKW viewing, they are not anticipated to have a significant adverse impact on CWW opportunities.
- *CWW vessels comply with codified no-go zone on the west side of San Juan Island:* The west side of San Juan Island has long been a voluntary no-go zone for CWW vessels. PWWA and Soundwatch guidelines and best practices request that CWW vessels remain a minimum of one-half mile from the light house at Lime Kiln State Park and one-quarter mile from the main shoreline between Mitchell Point to Cattle Point. Given that this applies to an existing voluntary no-go zone, this restriction is not anticipated to have a significant adverse impact on CWW opportunities or participant experience.
- *CWW vessels report emergency situations:* Reporting requirements add an extra responsibility for the CWW operators but are not expected to affect CWW opportunities or participant experience.

Alternative 4: No Action

Under Alternative 4, there would be no change to requirements for CWW and therefore **no impacts** to CWW opportunities or the tour participant experience. This means CWW vessels could operate and view SRKWs during any hours of the day, any days of the week, and any time of year. Existing best practices from PWWA, Soundwatch KELP, and Be Whale Wise would be in place to support CWW operators who choose to implement them.

Summary of Impacts

As described in the Animals and Recreation sections above, the four alternatives have differential impacts on SRKWs and recreation. Alternative 1 would have the highest likelihood of reducing adverse impacts (the most benefits) to SRKWs from CWW but would have the most significant adverse impacts on CWW opportunities available for recreators. By contrast, aside from the No Action Alternative,

Alternative 3 would have the least likelihood of reducing adverse impacts to SRKWs from CWW and the fewest impacts on CWW opportunities and experiences. In the alternative analysis, benefits and adverse impacts are identified in relation to Alternative 4, the No Action Alternative, which is associated with the most adverse impacts for animals and the fewest adverse impacts for recreation.

Table 2 below summarizes the anticipated significant impacts of the alternatives, key components with the most impacts, and whether the alternatives are anticipated to meet WDFW's mandate. In fulfilling its legislative mandate, WDFW must select a final action for the CWWLP that reduces daily and cumulative impacts of vessel noise and disturbance to SRKWs so they can effectively forage, rest, and socialize. In evaluating possible actions, WDFW must consider the impacts to CWW opportunities and participant experiences, as well as the economic viability of commercial whale watching license holders. (The economic viability of CWW license holders and the effects on small businesses, as mentioned earlier, are analyzed separately in the Economic Viability analysis and the Small Business Economic Impact Analysis.)

WDFW will likely need to select components from multiple alternatives to both support sustainable commercial whale watching opportunities and reduce the daily and cumulative impacts on SRKWs from CWW vessels. It is difficult to anticipate the extent to which the alternatives will reduce overall vessel impacts to SRKWs, given the uncertainty of the science and confounding factors, including the effects of vessels that will not be subject to the CWWLP.

Table 2: Summary of Significant Impacts of Alternatives

Alternative	Animals (Impacts to SRKWs)	Recreation (Impacts to Recreators and CWW Opportunities)	Summary
1	Least significant adverse impacts (most benefits for SRKWs) due to most restrictive SRKW viewing limitations and broadest area closures	Most significant adverse impacts due to most restrictive day, time, and area limits on CWW operations; Other components are not expected to have a significant impact on CWW opportunities or participant experience	Alternative 1 has the highest potential to reduce adverse impacts on SRKWs (most conservation benefits). Restrictions on CWW operating days/times would reduce CWW opportunities for recreators the most of any alternative.
2	Some significant adverse impacts (moderate benefits for SRKWs) due to moderate SRKW-viewing limitations and moderate area closures	Some significant adverse impacts due to mid-range day, time, and area limits on CWW operations; Other components are not expected to have a significant impact on CWW opportunities or participant experience	Alternative 2 has less potential to reduce adverse impacts on SRKWs than the restrictions in Alternative 1, but more than Alternatives 3 and 4. Restrictions on CWW operating days/hours would reduce opportunities for recreation more than in Alternatives 3-4, but not as much as Alternative 1.
3	More significant adverse impacts (fewest benefits for SRKWs) due to least restrictive SRKW-viewing limitations and fewest area closures	Least significant adverse impacts due to least restrictive day and time limits on CWW operations; Other components are not expected to have a significant impact on CWW opportunities or participant experience	Restrictions may or may not sufficiently reduce adverse impacts to SRKWs, especially given uncertainty and similarity of the alternative to no action
4: No Action	Most significant adverse impacts (no benefits for SRKWs) due to unrestricted CWW operation and activity	No impacts to CWW opportunities or participant experience	No changes to current conditions, and therefore no change in impacts to SRKWs from CWW or change in opportunities for recreators.

Mitigation Measures

Mitigation measures are actions that can supplement the environmental benefits for SRKWs associated with all alternatives (in the case of the No Action Alternative, mitigation measures could reduce the associated adverse environmental impacts). The mitigation measures below are intended to further decrease the daily and cumulative impacts of vessel noise and disturbance on SRKWs and promote their overall wellbeing, either directly or indirectly. WDFW is considering and may implement the following mitigation measures along with its selected action.

Influence of CWW Vessels on Private Recreational Boaters

CWW operators could assist WDFW in signaling whale presence to nearby boaters (e.g., by raising a whale warning flag when in the vicinity of whales) and in setting an example for the distance and speed rules to follow when in the vicinity of whales (this is what is industry calls a “sentinel” role). On the other hand, CWW presence may draw boats who otherwise would not travel in the vicinity of SRKWs (this is known as a “magnet” effect). Currently, there is little published empirical evidence of a sentinel or magnet effect of CWW vessels.¹¹² If peer-reviewed research indicates that CWW operator presence and/or actions such as using whale warning flags contribute to changes in recreational boater activity that decrease vessel noise and disturbance impacts on orcas (e.g., reducing the number and/or speed of vessels in the vicinity of orcas), then WDFW could consider adjusting CWW vessel limits as part of its adaptive management program.

Role of CWW Vessels in Monitoring and Communicating SRKW Status

CWW operators spend time in the vicinity of SRKWs, are familiar with their behavior patterns, and maintain regular communication with other vessels and the whale-observing community (e.g., WDFW, Soundwatch, or WRAS). Operators can contribute to SRKWs’ overall wellbeing by reporting suspected health or injury concerns; staying with an injured animal; calling WDFW Enforcement to the scene; reporting SRKW location to WRAS or other vessels (e.g., ferries or ships); communicating animal status to researchers. These monitoring and communications activities go beyond the specific reporting requirements that are included in the FEIS alternatives. Similar to the influence of CWW on private recreational vessels, this mitigation measure will be considered as part of WDFW’s adaptive management program and evaluated over time.

Education

Education is essential to promoting compliance with any new regulations and achieving a reduction in vessel impacts to the whales. Both voluntary and mandatory programs can create a sense of duty, particularly when education emphasizes the importance of the rules as part of the program.¹¹³ SRKW and other marine mammal education programs already exist and play an integral role in reducing disturbance from all types of vessels. For example, the Soundwatch Boater Education Program and Kayak Education and Leadership Program (KELP) educate boaters on and off the water about the impacts that vessels have on orcas and how to view them responsibly. Two additional possible education-based mitigation measures are described below:

¹¹² Washington State Academy of Sciences, “Q&A,” 5.

¹¹³ Ferrara, Mongillo, and Barre, “Reducing Disturbance from Vessels,” 7.

- *SRKW qualification program for CWW operators:* WDFW is considering establishing an SRKW qualification program for CWW operators who want to view SRKWs. The program would likely require CWW operators to demonstrate knowledge of SRKWs, the impacts of vessels on SRKWs, and information needed to comply with the CWWLP rules (e.g., the ability to identify different orca ecotypes or distinguish between SRKWs and transient orcas). This qualification program could be similar to the training required by Parks Canada for CWW operators and sea kayaking guides to operate in the Saguenay-St. Lawrence Marine Park: CWW operators and guides are required to successfully complete an annual training program that focuses on behaviors that avoid disturbing the marine mammals, such as maintaining appropriate distances, speeds, and observational behaviors.¹¹⁴ This training must be successfully completed in order to receive a viewing permit. The SRKW qualification program could also include education to mitigate potential impacts of CWW on SRKWs, such as:
 - Orienting vessels downwind of orcas to minimize impacts from vessel exhaust emissions.
 - Reducing changes in speed, starts, stops, and gear shifts
 - Avoiding “leapfrogging” practices where CWW vessels speed up to position themselves in the path of whales
 - Using slow approaches as CWW vessels are entering and leaving the vicinity of SRKWs to reduce masking of SRKW communication signals
- *SRKW curricula for members of the public and CWW clientele:* WDFW is considering developing SRKW curricula that CWW operators can use with clientele to increase the public’s awareness of SRKWs and topics such as ESA listing, the threats SRKWs face, and what the public can do to contribute to their recovery.

¹¹⁴ Saguenay-St. Lawrence Marine Park, “Marine Activities in the Saguenay-St. Lawrence Marine Park Regulations.”

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Appendix A: Reference Legislation (RCW 77.65.620)

The reference legislation authorizing WDFW to adopt rules for commercial whale watching licenses is 77.65.620 of the Revised Code of Washington; the full text is as follows.

RCW 77.65.620

Commercial whale watching license—Adoption of rules—Analysis and report to the governor and the legislature—Definitions.

(1) The department must adopt rules for holders of a commercial whale watching license established in RCW [77.65.615](#) for the viewing of southern resident orca whales for the inland waters of Washington by January 1, 2021. 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. The department shall at a minimum consider protections for southern resident orca whales by establishing limitations on:

- (a) The number of commercial whale watching operators that may view southern resident orca whales at one time;
- (b) The number of days and hours that commercial whale watching operators can operate;
- (c) The duration spent in the vicinity of southern resident orca whales; and
- (d) The areas in which commercial whale watching operators may operate.

(2) The department may phase in requirements but must adopt rules to implement this section. The department may consider the use of an automatic identification system to enable effective monitoring and compliance.

(3) The department may phase in requirements, but must adopt rules pursuant to chapter [34.05](#) RCW to implement this section including public, industry, and interested party involvement.

(4) Before January 1, 2021, the department shall convene an independent panel of scientists to review the current body of best available science regarding impacts to southern resident orcas by small vessels and commercial whale watching due to disturbance and noise. The department must use the best available science in the establishment of the southern resident orca whale watching rules and continue to adaptively manage the program using the most current and best available science.

(5) The department shall complete an analysis and report to the governor and the legislature on the effectiveness of and any recommendations for changes to the whale watching rules, license fee structure, and approach distance rules by November 30, 2022, and every two years thereafter until 2026. This report must be in compliance with RCW [43.01.036](#).

(6) The definitions in this subsection apply throughout this section unless the context clearly requires otherwise.

(a) "Commercial whale watching" has the same meaning as defined in RCW [77.65.615](#).

(b) "Commercial whale watching operators" has the same meaning as defined in RCW [77.65.615](#).

(c) "Inland waters of Washington" means Puget Sound and related inland marine waters, including all salt waters of the state of Washington inside the international boundary line between Washington and British Columbia, and lying east of the junction of the Pacific Ocean and the Strait of Juan de Fuca, and the rivers and streams draining to Puget Sound as mapped by water resource inventory areas 1 through 19 in WAC 173-500-040 as it exists on July 1, 2007.

Appendix B: Committees That Provided Input to WDFW on the CWWLP Rules

The following committees provided input to WDFW in developing the CWWLP rules.

Commercial Whale Watching Licensing Program Advisory Committee

Shane Aggergaard
Island Adventures

Rein Attemann
Washington Environmental Council

Jeff Friedman
Pacific Whale Watch Association

Cindy Hansen
Orca Network

Michael Jasny
NRDC

Tom Murphy
Outdoor Odysseys

Nora Nickum
Seattle Aquarium

Lovel Pratt
Friends of the San Juans

Ivan Reiff
Western Prince Cruises Inc.

Joe Scordino
Retired, former NOAA Deputy Regional Administrator

Taylor Shedd
The Whale Museum

Intergovernmental Coordination Group

The intergovernmental coordination group was comprised of state, tribal, federal, and local governmental representatives: This group discussed the feasibility of implementing options explored by the Advisory Committee and provided information to the Advisory Committee process at several touch points. This group had shorter meetings held approximately bi-weekly from December 2019 through April 2020 and as needed thereafter through the finalization and initial implementation of the rules.

Washington State Academy of Sciences Independent Science Panel: WSAS Committee for Underwater Acoustics and Disturbance

Dr. Peter Dahl
Senior Principal Engineer, Acoustics Department, Applied Physics Laboratory; Professor Mechanical Engineering, University of Washington

Dr. Marla Holt
Research Wildlife Biologist, National Oceanic and Atmospheric Administration (NOAA) Fisheries

Dr. David Lusseau
Professor, School of Biological Sciences, University of Aberdeen

Dr. Dawn Noren
Research Fish Biologist, Conservation Biology Division, NOAA

Dr. Susan Parks
Associate Professor, Biology, Syracuse University

Dr. Ron Thom
Staff Scientists Emeritus, Coastal Sciences Division, Pacific Northwest National Laboratory

Dr. Dom Tollit
Senior Research Scientist, SMRU Consulting

Appendix C-1: DEIS Public Comments and Responses (Webform, Email, and Public Meeting)

The comments below were submitted via WDFW's online public comment form, email, or verbally at the virtual public meeting during the DEIS 30-day public comment period (see Appendices C-2 and C-3 for letters/attachments submitted during this time). The comments are listed in the order in which they were received.

Name & Affiliation (if provided)	Comment Submitted	Response
David Turnoy	I support alternative 1, the most restrictive alternative that curtails commercial whale watching the most.	Thank you for your comment.
Jessica Dahl	In support of Alternative 1.	Thank you for your comment.
Aurore Maren	Please choose alternative # 1. Thank you	Thank you for your comment.
Lucas W Limbach	We prefer alternative 1.	Thank you for your comment.
Elisabeth Robson	I would like to see ZERO whale watching allowed for the SRKW and limited whale watching allowed for the Transients. Given the four alternatives, I'd support alternative 1, but again, I'd like to see the time for SRKW at ZERO at ALL times.	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Jennifer Krajack	Alternative 1 please. Unfortunately we are passed the point of implementing 2 or 3 or any other option. I am interested too on enforcement. If 1 is implemented how do you enforce? Thank you! Jen Krajack	Thank you for your comment. Enforcement practices are outside the scope of the FEIS as outlined in RCW 77.65.620.
Richard Fagen	Much prefer Alternative 1, the most restrictive	Thank you for your comment.

Name & Affiliation (if provided)	Comment Submitted	Response
Nancy Bingham	I prefer commercial whale watching be banned entirely for the sake of the survival and well-being of the Southern resident Orca families. Given the choices offered I would select the first, most restrictive choice.	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all of its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
C.S.	As someone who deeply appreciates and loves our whales, I support and encourage WDFW to take a strong stance to protect our whales and adopt "Alternative 1", which places the greatest level of restrictions on commercial whale watching operations. These waters are their homes. You wouldn't want strangers coming into your home and banging pots and pans while you're trying to eat, sleep, or care for your children - no matter how much such disturbance is because people say they love you and want to see you in your grandeur at home. Humans need to show more respect to nature. There should be strong protections for whales, even if that means keeping supposedly nature-loving folks out of the whales' dining rooms, bedrooms, and living rooms. This is their home, not ours. We are simply guests and need to start acting like it. Please enact the strongest measures possible to limit disturbances to the whales. Thank you.	Thank you for your comments.
Beth Shirk	I support Alternative 1 in order to protect the resident whale population.	Thank you for your comment.
Donna Snow	I wish to support the option to provide the greatest protection to the whales by limiting any boat traffic near to the whales. They need an absence of human noises to locate their food prey and to protect them from physical strikes by boats.	Thank you for your comment.
Faith Van De Putte	I strongly urge you to recommend "alternative number 1" as articulated in the Draft Programmatic Environmental Impact Statement: Commercial Whale Watching Licensing Program. As a fourth generation Lopezian I have seen the steady increase in whale watching operations in the county. We do not need to sacrifice the SRKW for the financial gain of one sector of our economy. The island economy will survive and be stronger without whale watching. I would support a total ban of whale watching if it was an option.	Thank you for your comment.
David Robison	I support Alternative 1, the most restrictive, to protect the SRKW population and support its increased. While this will have significant impact on the commercial whale-watching industry, there are some alternatives, such as land-based and more kayak-based trips. If the whale	Thank you for your comment.

Name & Affiliation (if provided)	Comment Submitted	Response
	population shrinks any further, there won't be any CWW opportunities anyway. Let's protect the future of the SRKW population and the industry at the same time.	
Tawnya Bissell	I support 1st proposal for most limited CWW. Thank you.	Thank you for your comment.
Susan Roth	I would agree with the more limitations on whale-watching activities the better. I would support eliminating whale-watching activities altogether. As humans, we have the thinking capabilities to find other means of entertainment and types of jobs. For the orcas, this is a life or death situation. Please let's keep this in mind as our top priority.	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Laura Reding	I support Alternative 1.	Thank you for your comment.
Kate Sorensen	I have lived in Washington State my whole life and have had one sighting of the southern residents. I am in support of Alternative 1. I think the time is now to put forward our best efforts to protect these animals when there are so few left. I want my great-grandchildren to see an orca in the wild - from a quiet, respectful distance.	Thank you for your comment.
Sue Roundy	Alternative #1 is the best option but may not be restrictive enough to allow the SRKW population to recover. I love overlooking the water so see commercial whale watching activities. The boats follow the whales too closely and attract other non commercial boaters two do the same. We've counted 2 dozen boats at one time. It is truly harassment of this endangered species! Thanks for the opportunity to comment.	Thank you for your comment.
Liz Scranton	As long as the SRKW are listed as an endangered species, I believe that the most restrictive policies, which severely limit CWW operators should be enacted. Recreational boaters should also be instructed to follow these policies and steep fines should be imposed on individuals who do not follow the regulations. We must do all we can to protect this species and the time has come to prevent exploitation of the species for economic profit at the expense of the survival of the species.	Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders.
Kate Ryan	The orcas of Puget Sound are too fragile a population to take any chances with at all. I believe all whale watching tour boats, etc. should be completely banned.	Thank you for your comment. Abolishing CWW is outside the scope of the EIS per RCW 77.65.620.

Name & Affiliation (if provided)	Comment Submitted	Response
Susan Plahn	I am in favor of restricting the whale-watching boats to limit the amount of time that Orcas are exposed to noise and harassment by people in boats.	Thank you for your comment. Duration is one of the 13 alternative components that the FEIS analyzes.
Eden Zillioux	The SRKW population is, even after all the studies and research and task forces and meetings, still under extreme stress, as their population is still dwindling. They are followed by vessels everyday, all day, and have been spending more time in Canada's waters because of this harassment they are subjected to. The whale watching industry's exploitation of these orca families is embarrassing and relentless, and it needs to stop immediately.	Thank you for your comment.
Julienne Battalia	The southern residents are "persons" that deserve the right to survive, thrive and regenerate their life cycles. Whale watching harasses the southern residents. These beautiful beings will go extinct if we don't wake up. Please ban whales watching of the magnificent southern Resident orcas. Your great grand children will know they are still here because you listened to the truth. These are intelligent sentient beings who deserve to have the right to survive, thrive and regenerate their life cycles.	Thank you for your comment.
Steven Horn	I think there needs to be a full moratorium on whale watching in the Salish Sea. The whales are adversely impacted by the noise and pollution, and the whale watch industry can still take people out to see the beauty of the sea.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Sage Dilts	We need a moratorium on whale watching vessels. No need for them and we are going to loose our whales be ause of them the industry will die either way.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Derek	We must absolutely create strong restrictions on all boating activity involving the endangered southern resident whales. Commercial whale watching boats should be restricted or even eliminated. Boats and noise cause significant harm to the endangered whales by disrupting	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>their natural setting, causing them stress and fear, and reducing their ability to thrive in their own environment. We should not put profits ahead of the natural environment and these important whales that are one of a kind in the world. We must support the biodiversity of the Puget Sound region. We humans can find other ways to make a profit without harming endangered animals. The whales do not have that luxury, so we must do everything we can to protect them. These restrictions should be as strict as possible, and should ideally go so far as to ban whale watching entirely!</p>	<p>zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.</p>
Andrea Finley	<p>The southern residents are abandoning San Juan County waters and moving into Canada because of vessel harassment. The ONLY immediate relief for the critically endangered orcas is a moratorium on whale watching.</p>	<p>Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.</p>
Nick Teague	<p>Considering the Range of Alternatives and the Cumulative impacts/ analysis, I do not believe an overall Moratorium on the CWW activities was strongly considered and or thoroughly examined to incorporate Natural Law and or the inherent Rights on Nature. I do not believe the Analysis, cumulatively, and or effectively considered the processes of the Natural World and or the Cultural significance of these special beings to the Coast Salish Peoples and other members of these bio-regional communities. I did not find, and therefore find fault and neglect in your analysis regarding the interconnectedness of the Orcas to other Salish Sea sharing communities. I believe this interconnected relationship and the inherent Rights of Nature, Natural Law and The Natural World should have been considered in the SEPA's cumulative impacts and analysis. I also do not believe your analysis significantly considered the cumulative impacts and or effects for a time span of seven generations.</p>	<p>Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.</p>
Kai Sanburn	<p>The Southern Resident Orca are critically endangered. The Whale Watching Industry is not. The orca must be able to swim freely, to hunt undisturbed and to raise their young without harassment from those that profess to love them. It does not look like 'love' when WW and recreational boats follow orca, in what looks very much like herding, through their home waters. I support the most stringent orca life-supporting regulations on whale watching and recreational boaters. Protect the SRO as aggressively as we can now. Work on increasing food supply for the long term - but stop the harassment now.</p>	<p>Thank you for your comment.</p>

Name & Affiliation (if provided)	Comment Submitted	Response
Betina Simmons	I think it's wrong that individuals and companies are allowed to profit from endangering our now rare resident orcas. Scientists say boat noise and harassment are major factors in their decline. These animals are treasured culturally by many and should be allowed to live in peace. We must do what we can to protect the few that remain. There is no reason that whale watching boats should be allowed to continue to operate, they are not essential or necessary.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Chloe Klein	Please ban all whale watching tours. This is an unethical practice due to the steady decline in killer whale populations. This seems like a no brainer for me.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Wendy Stephenson	Ban whale watching By boat for 3-5 years Please....commercial and private boats just chase them around the bays	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Jane Engle	RCW 77.65.620 as proposed is a good start towards protecting the orcas from further disturbance by commercial whale watching operators. I specifically appreciate the commitment to continue to review the science as it evolves to keep enhancing the pods chances to thrive and be part of the Salish Sea ecosystem.	Thank you for your comment. The FEIS relies on the best available science and in Chapter 2 acknowledges an adaptive management approach.
Robin Westler	Please do everything possible to give the southern resident orcas a chance to survive and increase their population. Limiting/restricting/regulating tour boats is a small price to pay for these amazing creatures. If the whales go extinct the tour boats will lose their jobs so it should be in their interest to help with a solution. And demonstrate that humans can be forward looking stewards of our beautiful region.	Thank you for your comment.

Name & Affiliation (if provided)	Comment Submitted	Response
Hannah Alhajahja	Please restrict whale watching to the greatest extent possible. No individual commission has the power to completely transform policy to help the Southern pod orcas thrive - there are too many sources of chemical and noise pollution to do that with merely the EIS. This is one swift way to help protect orcas. Please, do everything in your power to protect them. They are magnificent and innocent	Thank you for your comment.
John Tucker	My observations in the central Strait of Juan De Fuca area are as follows. During the past 10 years there has been a marked increase in the number of whale watching boats in the Port Angeles vicinity. These are primarily based in Victoria British Columbia. During the summer while salmon fishing the location of any whales (gray, humpback or orca) can be determined by the whale watching operators interacting with them. Often 6 to 8 vessels are involved, chasing the animals and running ahead to stop in their paths. Some operators seem to observe some distancing while others have run right on top of the animals. At no time have I ever observed any kind of enforcement during these aggressive interactions. Any kind of of these practices would seem to affect the whales traveling/feeding/normal activity. In my opinion the only way these animals can be preserved would be a moratorium on commercial whale watching and aggressive enforcement of existing laws regarding whale interactions with private individuals, including substantial fines and or vessel seizure. Specifically thinking of the recent surrounding of Orca's near the Tacoma Narrows.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Rex Guard	I'm a 4 th generation islander born and raised in Friday Harbor, we had a beach cabin in half moon bay since 1958, my brother and we're in a 14 foot almost every day fishing, dodging 50-60 pursuing goals boats with each of them having screaming Detroit Diesels pulling out and holding the ending of the seine net, I also stacked web on a block seiner summer of 1978, there were seiners scattered from eagle point to open bay , Henry Island, during those days there were plenty of killer whales, from my observation they were never deterred from all the boat traffic and noise from those screaming jimmy seine sciffs, they meandered threw all those seiners and nets like they weren't even there, if it bothered them so much why wouldn't they have swam outside the sea of seiners; think your barking up the wrong tree, I love the whales as much as the next guy, but facts are facts, I'm not a scientist but common sense would tell me something different, I think they need more salmon and less pollution, old islanders take on things, good luck fighting the no it alls trying to act like they read something somewhere, and need some purpose in life, when they haven't been exposed to real life , outdoors.	Thank you for your comment.

Name & Affiliation (if provided)	Comment Submitted	Response
Kenneth Bedell	No whale watching should be allowed by any watercraft or ship or aircraft. Leave the whales alone.	Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Kerri McCarthy	Orcas should be protected as much as possible. They have enough challenges without humans interfering more than necessary.	Thank you for your comment.
Jacob Manning	Ban jet skis, No gas motors while skiing or fishing. Gas motors for transportation only!	Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders.
Kristina Holley	There are several points that I take issue with in regards to this draft. 1) The Salish Sea is an ecosystem and does not respect state/country lines. Requiring whale watching vessels to have a business license in Washington State is a blatant disregard to that ecosystem and does not allow for a collaborative relationship with our Canadian partners in ensuring that this unique population of orcas have groups in both countries advocating for them through the whale watching community. 2) Under these proposed rules, identification of SRKW and the trajectory of their movement will be most difficult if not impossible to identify. This will ultimately lead to no viewing whatsoever of this population. 3) Professional whale watching companies are some of the greatest ambassadors of the Southern Resident Killer Whale population and report personal boat infractions and act as a model for people with personal watercraft and alert the public to the presence of whales. 5) Complete closure of the west side of San Juan Island would preclude viewing of other animals/birds and education of the general public on this unique area. 6) Lack of Chinook Salmon is the greatest threat to the SRKW population. If whale watching were to blame for the demise of this population, we would not be seeing the spike in other populations of whales including baleen whales and Bigg's Orcas. We are focusing on a much smaller issue that is effecting this population of marine mammals. 7) It is unclear to me how the limitations of not viewing these animals from	Thank you for your comments. The purpose of the CWWLP is to reduce the impacts of noise and disturbance from CWW on SRKWs, and as directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders. The FEIS analysis, including the analysis of the impacts of alternatives in Chapter 3, relies on the best available science as compiled by the Washington State Academy of Sciences.

Name & Affiliation (if provided)	Comment Submitted	Response
	Oct 1 to June 30 is rooted in fact of the current patterns of SRKW. September is now almost the prime time to observe these whales due to the fall Chum salmon runs. The fact that this is not included makes me doubt the guidelines were designed with the most recent data in mind.	
Marisa James	Given the continuing degradation of the natural world in general, it only makes sense to me to take the action that takes the most cautious approach to exposing Orcas to negative impacts. Short of banning commercial whale-watching, I think that alternative 1 is the closest to a correct approach.	Thank you for your comment.
Laurie Jones	We have been visitors to San Juan Island for 20 years and on 98% of those visits we go whale watching. The company we use has always been professional and sensitive to the whales by abiding by the guidelines that have been put in place. The whale watch company that we go out with also works as a watch dog to ensure that the private boaters see the whales and don't plow through the middle of them. The whale watch community should not be made out as the bad guy, here. Not only do the proposed rules not make scientific or practical sense, they actually put the whales at greater risk. Without any commercial whale watch vessels on scene with them in inland waters for 9 months out of the year, private boats will be less likely to know the whales are present, private vessel operators will not have a model of what safe boating distances and speeds look like, the military will not be made aware when whales are entering active testing zones, researchers will have more difficulty locating and tracking whales, and key observations that are regularly made and reported by whale watch captains and crew, including injured or malnourished whales, missing whales, and new calves, will go unnoticed for longer periods of time.	Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.
Harry Branch	I have fished for tuna, delivered sailboats from Hawaii, skippered education and research vessels for colleges and dive boats for NOAA. I have a USCG nearshore 100 ton license and have owned a dozen sailboats. I have interacted extensively with gray, blue, sperm and orca whales in both sail and power vessels and I can assure you there is one way to solve this. Boats should only approach whales under sail. It's as bloody simple as that.	Thank you for your comment.
Sherman Griffin	The sounds that propellers make in Puget Sound is quite loud to the human ear. For Orcas, it is significantly higher. Boats that track, follow, and watch Orcas should not be allowed. Given the critical state of this species, I would support a complete ban on Commercial Orca Whale Watching at this time.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its

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		component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Joe Jordan	I believe that all special interest groups should do EVERYTHING in their power to increase and protect orca populations. Similar to how fisherman are being limited on catch, so should whale watching, netting, and other activities that directly affect orca populations.	Thank you for your comment.
Bruce W. Morse	Do the rules address the proximity required to assist an entangled or injured whale?	Thank you for your question. The FEIS does not address the role CWW operators may or may not have in assisting marine mammals in distress, aside from reporting the incident to WDFW Enforcement, SoundWatch, or WRAS.
Eric Bartrand	Observer boats should only use silent electric propulsion within 2km of pods and maintain a minimum distance of 500m.	Thank you for your comment. Washington law prohibits any vessel from approaching SRKWs within 300 yards; positioning itself either in the path of SRKWs or behind SRKWs within 400 yards; or exceeding a speed of seven knots within the vicinity of SRKWs (RCW 77.15.740). The FEIS does not examine impacts to SRKWs in terms of vessel distance or speed.
Melissa Brosnan	I support restriction and mitigation measures in the draft statement that allow for some continued economy activity with substantial protections for the threatened whale population.	Thank you for your comment.
Bonnie Gretz	I support a limit on the number of vessels and duration of viewing of Southern Residents, but that professionally licensed whale watchers continue to be allowed to view whales year-round in order to educate the public, inspire love for these whales, contribute to research, and play an ongoing sentinel role on the water.	Thank you for your comment.
Heather Arps	It is my firm belief that we need to suspend all boat harassment of the whales by placing a moratorium on whale watching for a set period of time and enforce the restriction. Humans have options that are not available to the whales and we need to exercise some self control in	Thank you for your comments. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry,

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	order to preserve this icon of the northwest. It would be interesting to see how Covid and the attendant limits to gathering in groups has had on both the whales and the business owners. Living in the San Juan Islands means being creative in your work and living. Its not an easy place to stake a claim but it is worth the effort. Perhaps monies can be found to re-train boat owners and steer them toward other income sources or train them to support scientific study of the waters they rely on for income. Thank you, Heather Arps	Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Roseamber Sumner	I have been a resident and whale watcher in the San Juan Islands for over 40 years. I have never used a whale watching boat service but every time I have seen whales, they have been surrounded by these boats, some coming far too close. There are plenty of studies now to indicate that the motor noise and proximity of boats is detrimental to the life of orca whales. I think the Environmental Impact statement should reflect a strict moratorium on these commercial enterprises as well as a distance maintained for private vessels that reflects the safety of both the animals and the vessels. Sometimes it is unavoidable for a private boat to keep a distance of 650 yards, as the whales are hard to spot at that range, but all care and attention should be stressed to try and do so without undue punishment for accidental proximity, in which case, motors should be turned off or kept extremely low until the whales are out of the 650yard range. Thank you.	Thank you for your comments. Washington law prohibits any vessel from approaching SRKWs within 300 yards; positioning itself either in the path of SRKWs or behind SRKWs within 400 yards; or exceeding a speed of seven knots within the vicinity of SRKWs (RCW 77.15.740). The FEIS does not examine impacts to SRKWs in terms of vessel distance or speed. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Wendell Bunch	My observation is that commercial whale watching has little or no effect on whale behavior. I believe the small inflatables run by the whale protection groups may have a bigger effect as I have seen them routinely violate the distance rules.	Thank you for your comments.
Jan Scilipoti	Regarding the 4 Alternatives: Let's keep in mind that keeping the SRKWs healthy and in our region benefits the commercial whale watching industry. Protecting the whales to a greater extent will actually increase the possibility that they can be 'watched' for profit. The more restrictive the measures are now, the more likely the whales will continue to be in this region in the future. Regarding "Reporting: CWW operators would be required to report on the	Thank you for your comments. The FEIS reporting component does not include the PWWA app because not all CWW operators are PWWA members who have access to the app. The reporting

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	<p>presence and location of SRKW to WDFW Enforcement and/or provide documentation of their observations of SRKWs, such as logs of SRKW sightings, viewing, and other on-the-water observations.”: The Pacific Whale Watching Association (PWWA) has an APP that tracks the exact location of 5 types of whales. Access to this APP by regulatory agencies would allow them the same information the whale watching boats are using, and they would not have to solely rely on reporting by operators. Regarding these Education components “Two additional education-based mitigation measures that could enhance conservation are: 1) SRKW-viewing qualification program that would require CWW operators to demonstrate knowledge of SRKWs and information needed to comply with CWWKP rules and 2) an SRKW curriculum for members of the public and CWW clientele to increase awareness of SRKWs and how to contribute to their recovery.”: It is not that these measures “could” enhance conservation, they WOULD enhance conservation. These components should be mandatory and prioritized.</p>	<p>component is designed to be able to apply to any CWW license holder.</p>
Andre Entermann	<p>I have seen the financials of the WW industry in SJ county and it proved they do not need the income from the SRKW. Their profits went up while SRKW sights went down. There is plenty of "healthy" marine life to view. Viewing the SRKW at anytime on purpose has a SIGNIFICANT impact. Prey is the number one problem, but interfering with what little prey is out there with our noises and fuel slicks is not right. Increasing Chinook stocks will take years and should be worked on, but reducing vessel noise will be an immediate benefit to the SRKW. They used to need 2-3 fish in the past, when they were big. Imagine how much work they have to do now catching 50 fish amongst a bunch of vessels following them 24/7? Please create a 650 yd buffer around these magnificent creatures 24 hours a day and keep all vessels out of their historic feeding grounds on the west side of SJ island.</p>	<p>Thank you for your comment. Washington law prohibits any vessel from approaching SRKWs within 300 yards; positioning itself either in the path of SRKWs or behind SRKWs within 400 yards; or exceeding a speed of seven knots within the vicinity of SRKWs (RCW 77.15.740). The FEIS does not examine impacts to SRKWs in terms of vessel distance or speed.</p>
Karen Bertling	<p>Implementation of rules to protect the whales cannot happen soon enough. In my opinion, the final rules must include: 1. Limits on the number of commercial operators receiving licenses. 2. Limits on the number of boats out viewing the whales at any one time, and limits on amount of time any boat is in the vicinity of whales. 3. Most important--strict oversight and enforcement of the rules!</p>	<p>Thank you for your comments.</p>
Michelle Collyer	<p>End commercial whale watching from motorized vessels. Mechanical silence is essential for the well-being of marine wildlife and fossil fuel-powered “leisure” activities are unconscionable. Additionally, we MUST have larger “no vessel” zones in and around the Salish Sea. Thank you for accepting comments.</p>	<p>Thank you for your comments. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders. Although WDFW is not considering abolishing CWW or placing a</p>

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		moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Heike Uhlig	I support Alternative 1 and suggest the following changes: (1) specifically prohibit any CWW operations for the months May through October in the SJIs and October through January in the Puget Sound (2) expand the geographic area to all San Juan Islands, Puget Sound, and Juan de Fuca marine zones (3) increase the safe distance zone for CWW operations to 1000ft (4) require AIS tracking, with a \$3000 fine for violations, and monitor and enforce non-compliance (5) enable the public to report violations These suggestions are a compromise: I strongly believe that all CWW operations should be prohibited year-round anywhere. It's low-hanging fruit compared to increasing salmon runs and reducing environmental toxins.	Thank you for your comments. The FEIS includes a new AIS component; AIS was addressed in the DEIS as a mitigation measure. It is analyzed for all four alternatives in Chapter 3.
Dave Paton	Much as is currently the case in Canada I don't think WW activity should be carried out in the presence of SRKW at all. The population is too fragile. There are multiple options for viewing transient orcas and other less threatened cetaceans. Furthermore I think even for other cetaceans the numbers of WW boats should be constrained by licensing. Prior to the Corvid created drop in tourism we would see cetaceans being mobbed by many boats from both sides of the border. I think the WW business is in danger of turning the Salish sea into an aquarium.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Bonnie Miller	Of the three main threats to their existence, vessel noise and disturbance is the one threat that we, the people of Washington, can demand that our public agencies remove. Through regulations we can demand quiet engines (electric) and we can demand limits on the number of boats reserved in the TOTAL area of the whales.	Thank you for your comment. Vessel noise is addressed in the Components Considered section of Chapter 2.
Charles Russell	Last July we saw an orca pod near Bird Rocks, San Juan Islands. I kept my distance, I observed several orca immediately swim over to a commercial whale watching boat. They stayed there swimming around and Under the boat for a long time. They were obviously attracted somehow. Isn't that illegal?	Thank you for your comment. The question is not about a topic that is within the scope of the FEIS.
Paul Lindholdt	Limit motorized recreation in Puget Sound and the Georgia Strait to aid the orcas. Suspend the Marine Mammal Protection Act to effect lethal removal of harbor seals. Limit salmon predation by cormorants via lethal means as well.	Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders.

Name & Affiliation (if provided)	Comment Submitted	Response
Liz Malinoff	The draft is a step in the right direction but will be ineffective without compliance. Compliance needs to be monitored and violators need to be prosecuted and/or lose their license to operate. This plan does not go far enough to really protect Orcas and ensure their survival. There is nothing sadder than watching a fleet of boats, commercial and personal, swarm a pod of whales.	Thank you for your comment. Enforcement practices are outside the scope of the FEIS as outlined in RCW 77.65.620.
Dean Hoshizaki	Whale Watching should be stopped. There is too much disruption in their habitat. Based on my observations, of about 4-6 times a year, every time ANY whale shows up, recreational boats surround it and try to leap frog to get ahead and "see it". When there is a commercial watching boat, their large boat forms an "anchor location" and the recreational boats form a perimeter. This continues for hours. Furthermore, any time a commercial watching boat is in the vicinity, the recreational boats sight it and proceed to encroach and form a perimeter. The whales cannot escape and are constantly resurfacing close to boats. There is no enforcement to prevent this from happening.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Steve Smith	We all see the challenges which the SRKW's are having, but the main issue they face is food scarcity (as evidenced vividly by the proliferation of transient 'Biggs' killer whales in the same waters, with the same toxins and vessel noise, etc.) It's easy to understand why critics (who care about the whales) could focus their attention on what they can see - the boats - instead of what they can't see (fish that aren't coming back like they once did). But devoting energy and resources on monitoring / restricting CWW vessels hurts the SRKW's in three ways: 1) It takes away the role which CWW vessels play in educating, inspiring, and informing the general public about the plight of the killer whales; 2) It actively removes boats (and captains / crew) who frequently intervene to protect the whales from unaware or careless private boaters. I have seen CWW vessels intervene and potentially prevent many collisions between boats and entire pods of whales. The West Side of SJI is a great example of a place where speeding fishing vessels are known to plow right through a foraging pod of orcas, with only the CWW vessels (and their whale flags / radios / direct physical interception) to intervene.3) It uses up funds, energy, and creates a "perception" that meaningful change is happening while distracting from more meaningful (but more complex) change such as habitat recovery, dam removal, and other work to restore chinook salmon runs, their primary food source. I am in favor of legislation that can help mitigate the noise impact which large vessels have in the Salish Sea, but restricting the already-heavily-self-regulated vessels of the Pacific Whale Watch Association (PWWA) puts the effort in the wrong place which not only fails to help, but	Thank you for your comments. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.

Name & Affiliation (if provided)	Comment Submitted	Response
	may actually hurt the SRKW's. If restrictions do go forward, I would suggest that these restrictions be applied only to commercial operators that are NOT part of the PWWA, as the PWWA vessels are already well-regulated and self-regulated. Thank you for your work.	
Peggy J. Printz	Commercial whale watching is a small industry, and the economy of the state would not suffer if it disappeared. Reputable scientists agree, land-based whale watching is by far the best way to view these endangered creatures. The least intrusive way to see orcas is from shore. If whale watching boats must exist, please restrict their frequency and size, and confine them to the greatest possible distance from the whales.	Thank you for your comment.
Fred Mc Culloch	Nothing is wrong with present restrictions. Why not spend this study money on finding more chinook salmon for the residents to eat	Thank you for your comment. Fisheries management is not within the scope of the EIS as outlined in RCW 77.65.620.
James N Browder	I'm in favor of eliminating all commercial and recreational whale watching activities in areas of the orca's primary feeding habitats. I would defer to expert testimony as to the exact areas, however, I will suggest closures of the west coast of San Juan Island, Point Roberts, Rosario Strait and the southern coast Lopez Island. Beyond that, limit viewing to one vessel at a time and reducing the number of whale watching commercial permits. However, viewing gray whales could have vastly more permits and areas open as they are near pre-whaling population level in Eastern Pacific.	Thank you for your comment. The FEIS includes a section on Adaptive Management in Chapter 2 that addresses ways in which WDFW could manage uncertainties such as SRKW habitat use.
Kathryn Show	I think it is very important to limit the amount of whale-watching boats and to limit the amount of time they may be near orca whales. I am glad that an independent group of scientists will be studying the advising on the impact of the new rules on the southern orca population.	Thank you for your comment.
Tim Starkovich	Alternative 4 is the only viable option. Please don't destroy responsible whale watch business AND eliminate life experiences for people that would NEVER otherwise see Orca's in the wild. We are spoiled here and I have viewed them dozens of times in the wild. Limiting that possibility for people outside our area would be a unfortunate consequence of alternatives 1-3. I have been cruising the islands on boats for 30 years and have also been watching whale watch vessels in the area interact with whales regularly. When I say interact, I really mean the whales swim toward the boats, almost as if they recognize them. I think unless you are going to limit larger ships from transiting whale habitat areas, limiting whale watch boats is barking up the wrong tree. If you listen to the large ships running up Haro Strait, their low frequency	Thank you for your comment.

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>engine and prop noises can be heard for miles. I understand the balance that WDFW is trying to walk here, but I believe many of the policy makers haven't spent a lot of time watching whales from CWW vessels in the wild. They are typically very responsible. I would suggest rather that the policy read "when in the area of Orca whales, and when safe navigation permits, turn off your engines until the whales pass" When underway, follow the guidelines already in place of safe distances while whale watching. Thanks for reviewing my comments and good luck with the impact statement.</p>	
Michael Rosenwood	<p>As a recreational boater in the Salish Sea, I have watched commercial whale watch boats rapidly approach whales and then follow them, attracting many other boats in the process. While they may be technically following the rules, they are certainly NOT having a positive impact on the whales, in any conceivable way. This is all about money. The boats are large, powerful, and noisy. Whales have a tough enough time without this harassment.</p>	<p>Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.</p>
Jacques Moitoref	<p>Regarding the proposal to license the whale watchers in order to lessen their impact on the whale's lives. Skagit Valley Herald, Sat. Oct 3. How ludicrous! Regulating the hourly viewing-stalking schedule is only scheduling the torture program. Whales are not fish. They are sentient warm-blooded mammals with a complex social structure and hearing far more sensitive than ours. Underwater, sound travels faster and farther than through air. Underwater, whales can communicate phrases of clicks whistles and pulses in songs lasting hours, over thousands of miles. For a mother and calf, proximity to a motor boat is like for a human mother nursing a baby, to be standing next to a jack hammer. The number of daily hours a mother and calf's communication is shouted out by internal combustion engines is not our property to regulate. Such terrorizing would not be tolerated for one minute in a human situation, no matter how much money the tour guides "earned". Whales are entitled to the comfort of their home. Stay out of their backyards and bedrooms; they don't get near ours. If the chattering gawkers must invade their domain, at least have the courtesy to turn off the deafening grind of their engines. Short of banning motor vessels outright, the first, most obvious solution to the problem would seem to be mandating conversion to merciful, quieter electric motors. Expensive? Yes, but what's worse, the extinction of noisy, stinky</p>	<p>Thank you for your comment. The FEIS addresses the topic of electric motors/different propulsion systems in Chapter 2.</p>

Name & Affiliation (if provided)	Comment Submitted	Response
	carnival boats or the extinction of the whales? Electric motors, electric motors, electric motors. Thank you.	
Julienne Battalia	Option 1 is the best option for the whales health and well being. The Whales deserve to be free of noise for as long a possible.	Thank you for your comment.
Brian Sharp	I oppose these regulations. The the whale watcher protect the whale. Your regulations will not help the whales and in the long run will hurt the whales.	Thank you for your comment.
Cindy Hansen- BOLD	Thank you for the opportunity to provide comments on the DEIS for the Commercial Whale Watching Licensing Program. BOLD is an informal advocacy partnership consisting of members of Orca Network, Orca Behavior Institute, Whale Scout and Salish Sea Ecosystem Advocates. We are dismayed that professional whale watching continues to be a scapegoat even though there is peer reviewed science and data showing that lack of salmon is the biggest factor contributing to the Southern Resident orca population decline and reduced use of their core summer habitat. The DEIS lists potential benefits to Southern Resident orcas due to various restrictions on viewing, but it does not take into account the negative impacts from recreational vessels, which will likely increase if commercial whale watching boats are not present. Data from Soundwatch shows that recreational boats are responsible for the majority of infractions of current laws regarding vessels with Southern Resident orcas. The DEIS does not incorporate the sentinel effect of whale watching because there is not currently any peer reviewed science to support it. Statements and comments from eyewitnesses and many members of the public are not being incorporated, even though the Washington State Academy of Sciences Review of proposals states that anecdotal observations can be useful. The Mitigation Measures section of the DEIS highlights the positive role of commercial whale watching, including identifying and monitoring Southern Resident orcas and communicating with researchers, but these measures are not considered in the majority of the alternatives listed. We encourage you to read and incorporate the attached position paper that was signed by ten respected organizations supporting responsible whale watching and highlighting the positive role they play in education and protection of Southern Resident orcas.	Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.
Philip Friend	Whale watching is a very small industry. Please do everything you can tp protect these whales, limit the number of boats, the kind of noise their vessels generate while around whales, maybe electric only motors while close, and enforce these rules effectively somehow.	Thank you for your comment.

Name & Affiliation (if provided)	Comment Submitted	Response
	Perhaps drones would allow you to monitor these vessels more closely. Thanks for your efforts!	
Ginny Broadhurst	<p>1. I think the SEPA document should include a complete ban on whale watching as one of the alternatives in order to comply with the precautionary approach to managing endangered species. 2. I do not believe that there is evidence that commercial whale watching boats fulfill a sentinel role. There may be just as much evidence that they increase boat presence around SRKWs. 3. I think it will be vitally important for any licensed commercial whale watching boat to have AIS to enforce regulations. 4. If a licensing program moves forward, it should give preference to those whale watching vessels that have the quietest engines and that have solid track record of no previous violations of Marine Mammal Protection Act. 5. SRKW excursions in WA waters is limited because of reduced salmon, but that is also inextricably linked with the increase of underwater noise. With quieter waters, the SRKW will have greater success using echolocation to find Chinook salmon and quieter waters may result in them spending more time here. 6. Washington state and federal agencies have been timid for too long about enacting regulations to protect the SRKW. Quieting the waters is one of the few short term actions that can be taken and WDFW should do everything in their powers to protect SRKW.</p>	<p>Thank you for your comments. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life. Further discussion on this topic is in the Description of FEIS Alternatives section of Chapter 2 of the FEIS.</p> <p>The FEIS includes an AIS component is analyzed for all four alternatives in Chapter 3.</p>
DeAnna Claus	<p>I am very supportive of the licsning rules in Draft A for SRKW watching...no go zone off San Juan, limited months, hours and days, plus limited number of watching whaleboats. We live on high bank waterfront near Anacortes. If you wonder where the whales are, just see where the whaleboats are. The business advertises on its marquee how many days of how many they have seen whales. It is almost every time they go out. Then, as soon as the whale boats gather, multiple private craft flock to the site. It seems to me, the whales simply MUST feel harassed! As much as people want them to reproduce, they recently had to give birth with whaleboats watching. No whaleboats in MY delivery room, thank you. My brotherinlaw lives just inside Deception Pass, fairly narrow there, and the boats DO NOT mind the required distance. He has even seen boats go THROUGH a pod, and also kind of herd the whales. Vessel noise is very unfortunate for the whales. Our bedroom must be 150-200 feet beyond the ordinary high water mark, and late in the night (I know these are not whaleboats), there are some boats whose churning engine noise is prolonged, and significantly disturbing. Imagine if you were trying to find and catch fish with echolocation, and everywhere you went, boats showed up. I do worry that if strong limits are put on the whaleboats, they will just switch to even greater attention to the transients, other types of whales, seal, sea lions and</p>	<p>Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.</p>

Name & Affiliation (if provided)	Comment Submitted	Response
	bird rookeries. I very much support the "tracking" and reporting components of the proposed licensure. Thank you! DeAnna Claus	
Sha Luca	option A with no shoulder seasons! These whales need more protection than what you are allowing. Additionally, these companys already profit greatly from our natural resources. isn't that enough?	Thank you for your comment.
Carol A Bordin	I support the lives of the Native Southern Resident Orcas and their families/pods. They have a right to live unharmed in the Salish Sea and beyond. Just this year, there have been 3 new calves born to adult females of various pods, so wonderful! However, during the summer months the mothers with calves were harassed by boaters getting right on top of them for a look-see, so harmful to a mother and her calf! Where was WDFW then? I am in total support of the following: 1) removing the dams on the Lower Snake River and Columbia River to allow native stocks of all salmon the ability to move upstream to their native streams to spawn and carry on their life cycles, (2) updating the WA State Ferries to be run on electricity, not fossil fuels, and also to be made as quiet as possible and also equipped with technology to see and know where orcas and all cetaceans are while transporting people/cars to and fro to destinations, (3) closing down all fishing during calving, and when orcas are present in the Salish Sea...all times they are present in the Salish Sea, Puget Sound waterways, (4) Keeping all boaters, fishermen, and whale-watching boats/ships/vessels out of the Salish Sea during calving and when orcas are present in the Salish Sea at increasing number of sightings during the year...they don't need people in the way of their hunting, rearing, and socializing, just living...give the a brake! (5) Consider their lives and the lives of their families before you make it worse for them to exist in our Salish Sea and beyond! People need to RESPECT the Lives of Orcas and All Marine Wildlife and to Coexist with them, not impact and harm them further. I am for the most restrictive use of boaters/fishermen/vessels in the area of the Salish Sea and Puget Sound and beyond Our Washington for what is BEST for them, not us! They Matter! Black and White (ORCA) Lives Matter! Thank you!	Thank you for your comments. The FEIS examines possible actions WDFW could take that are under its jurisdiction. This concept is further explained in the Context for FEIS Alternatives section of Chapter 2.
Karen Sullivan	Thank you for the opportunity to comment on draft rules that make provisions for how, when and where whale watching will be allowed to occur in the state's waters, with regard to the Southern Resident Killer Whale (SRKW) population, which is both federally- and state-listed as endangered. I'm a retired endangered species biologist with the U.S. Fish and Wildlife Service. The DEIS is seriously deficient in that it does not consider cumulative impacts, and for other reasons explained below. The SRKW population currently numbers 76 individuals and is the	Thank you for your comments. The FEIS includes more SRKW background information than the DEIS and discusses the suite of threats faced by SRKWs in the Life History, Habitat, and Conservation Status of SRKWs section of the

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>only known resident orca population in the United States. Being an iconic species, they are beloved, and are connected to many Tribal traditions. Unfortunately, they have also experienced double-digit declines since 1995, and this trend has not been reversed despite a few recent calves born. While intentions have been laudable and I applaud the upcoming commercial licensing program beginning January 1, 2021, on-the-ground recovery efforts have been grossly inadequate while threats have increased exponentially. These threats include lack of food (dwindling Chinook salmon populations), noise pollution from vessel traffic doubling every decade (prevents them from using echolocation to catch food), and chemical pollution (PCBs and other toxins concentrate in the tissues of orcas and cause endocrine and immune system disruption when they starve.) The U.S. Navy is increasing its use of sonar and thus its “take” of orcas from 2 per year to 51. Two-thirds of orca pregnancies fail due to nutritional stress. Cumulatively, \$16 billion has been spent without recovering a single salmon population, in part because the big dams on major Western rivers are among the most intractable barriers to salmon, and thus, resident orca, recovery. This impact makes other, smaller ones, loom larger. The DEIS addresses none of this. By recent executive order of the Trump Administration, cumulative impacts under NEPA are no longer properly considered in environmental analyses. But how can you analyze the impacts of a single activity on a population without looking at the whole picture? Death by a thousand cuts is still death. The Endangered Species Act is one of few statutes that put wildlife first. The SRKW’s endangered designation is the highest under this law, meaning this distinct population is “in danger of extinction throughout all or a significant part of its range.” We have ethical, legal, and financial obligations to protect and conserve them. With so many problems standing in the way of orca recovery, one would think agencies would do everything in their power to better regulate the “low-hanging fruit” of disturbing orcas by boat for recreational purposes, as they try to feed and nurse their young. One of these potential remedies is not even mentioned in the DEIS: incidental take permits. . Disrupting orca behavior is a form of take, whether the vessel is a regular commercial magnet or a privately-owned boat, or a whole flotilla attracted by the magnet. Accountability is part of the deal. I have been aboard a large commercial wildlife-watching vessel in Alaska as it plowed through a raft of more than a hundred resting seals and even bumped an ice floe with its bow, panicking a seal pup waiting for its mother, in order to get “up close and personal” for passengers. I reported it to agency law enforcement and nothing was done about it—and I suspect my experience aboard that vessel was not unique. I have seen commercial wildlife-viewing vessels deliberately nose the</p>	<p>Introduction. “Take” has a specific federal definition under the Marine Mammal Protection Act: to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal. WDFW does not have the authority to permit take and decisions regarding this topic are outside WDFW’s jurisdiction.</p>

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>bow up to a sea lion haulout rock to spook fifty animals into a dramatic dive into the water while passengers crowded on the bow, obviously forewarned to get ready, and snapped photos. In Canada I watched a commercial vessel follow a humpback so closely for over an hour that it had to finally dive deep and surface a mile away. In the San Juans off Limekiln Point, the whale watching vessels are reliable magnets for private vessels, too many of whom evidently neither know nor care to observe, the rules for safe observation—a photo in the DEIS demonstrates that. Several of these commercial vessels promise viewers a whale sighting or they ride free, thus other boats always know where to look. Your agency’s environmental analysis admits there is “little published empirical evidence of the influence, sentinel, or magnet effect” of commercial whale-watching vessels on other boats or kayaks. It also acknowledges that these commercial vessels “can contribute to management and data collection” about the health of the species, but where is that data, and why is it not prominently presented in the DEIS? Where is even anecdotal evidence that these commercial vessels provide a “sentinel” or discouraging effect to orca disturbance or harassment from private vessels? In the absence of such data, one must conclude that the commercial vessels’ net effect is adverse. How is regular daily disturbance while endangered whales are trying to feed and nurse calves not considered a form of take? Why is there no ITP required for it? Why are these impacts not considered along with others in a cumulative analysis? The SRKW population is fragile enough now to where resistance to even small impacts in such a big field of them is bound to be lower, especially over time. In 2019 NOAA’s National Marine Fisheries Service affirmed the rather desperate conservation needs of the SRKW population by proposing to designate six new areas of critical habitat along the West Coast that included 15,626 square miles of ocean between depths of 20 feet and the 200-fathom line. Critical habitat designations are nearly always controversial and must be justified by extreme need. Agencies don’t stick their necks out without good reason; thus, the designation supports the conclusion that the SRKW population is in dire straits and must be afforded every opportunity for recovery. It is obvious that volunteer-based policy hasn’t been enough to help recover these animals. Therefore, the precautionary principle must apply and the most restrictive measures should be taken. Alternative A is the least harmful, especially in light of the fact that a cited economic viability analysis confirms that whale watching tours are not financially dependent on viewing this orca population. In fact, it confirms that the industry has remained profitable despite reductions in orca-viewing opportunities over the past ten years. So why would you not adopt the alternative that gives the orcas the best chance of survival, and add</p>	

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	to it a program for incidental take permits for vessels in the commercial whale-watching business, along with better monitoring and data-collection from them? Thank you for your attention. Sincerely, Karen Sullivan	
Deirdre Gabbay	I strongly support additional protections for the SRKWs. I prefer Option B because it gives the animals several days per week when there will be zero commercial whale watching boats around them. These "days off" will give them more time to feed free from sound disruption and from the stress of vehicle noise. I believe it is better to have more frequent respite from vehicle harassment even if the season is longer, than to have an intense three month long season with zero days of rest. I care deeply for these animals and their well being. Thank you for the opportunity to comments.	Thank you for your comment.
Shannon Peterson	I fully support the limiting of whale watching tours, the preservation and sanctuary type model of the San Juan's. Whichever allows the lesser number of tours and days, I fully support.	Thank you for your comment.
Ariel Yseth	I am a volunteer, land-based naturalist. For the last 6 years, I have spent the majority of my free time in the summer along the shores of San Juan Island watching the Southern Residents. I feel that passage of this set of rules would be a detriment to the Southern Residents. The issue has not been officially studied, but I can assure you from my own observations that there are exponentially greater instances of "near miss" incidents (wherein orcas are nearly hit by speeding boats) when whale watching vessels are not present. Whale watching boats are the only boats on the water that actually care to be cautious around the whales and they relay very valuable information on status and location to scientists. For example, just 1 month ago, one of the whale watching vessels reported that J41 had just given birth to a new calf. Last summer, a whale watching vessel alerted researchers that T137A was "not himself" and turned out to have a very serious injury to his tail fluke. I myself was a private passenger on a whale watching vessel on July 6 and witnessed a young humpback whale, three year old named Chip, get run over by a Washington State Ferry. I recorded the video of him sinking to his death. It was naturalists all across the PWWA who banded together to figure out, within hours, who this young whale was and where exactly he had been seen in the previous days. It was because of us on the whale watching vessel who started the chain of events to notify NOAA and WDFW of what had just happened. In all, this is the wrong path to take. You are trying to turn inland Washington into Robson Bight but you are outlawing the only vessels who care about the whales and thus, the only vessels who care to drive cautiously near them.	Thank you for your comments. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.

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	You are NOT addressing private vessels, fishing vessels, or container ships. In my experience, private vessels and fishing vessels are the worst offenders when it comes to endangering the Southern Residents. Passage of this draft makes no sense and is a mistake.	
Emily Inlow-Hood	Please ensure your rules protect whales not the whale watching businesses.	Thank you for your comment.
Emily S Crawford	The west side of San Juan Island should be closed to ALL commercial tour activity, including kayak tours. Tours could go north, out of the county park, instead of south. The environment is fragile and the number of people on the water in all water kinds of water craft is having a major negative effect on wildlife. I am a former kayak guide on the coast of SJI and have seen for myself how the actions of kayak tours disrupt the whales passage.	Thank you for your comment. The FEIS includes additional details on the closure of the west side of San Juan Island in Chapter 2.
Fred McCulloch	too restrictive but option A is better than option B	Thank you for your comment.
John W Boyd	I am finding it so hard to read yet another draft. After years of diligence on the part of whale watch vessels, who work hand-in-hand with the wonderful officers out on the water, your latest iteration is worse than ever. I have worked around SRKWs for 24 years. 16 of those years were with the Soundwatch Boater Education program. 20 years as a certified marine naturalist and licensed captain. I have worked alongside Ralph Downes, Taylor Kimball, and Russ Mullins both from the Soundwatch boat and from the whale watch boat I captain. Many of the naturalists and captains in the area do more to observe, preserve, and educate about SRKWs than any other group. This current draft serves only one purpose--to silence those who have wanted to close the entire west side of San Juan Island from whale watching so they can watch from their homes. This current draft removes the group of vessels that are in compliance with all the current regulations. This draft removes the group of vessels that has the lowest percentage of incidents around SRKWs. This draft removes YOUR ability to know where whales are, as well as removes real-time updating. It also removes one of the best partners WDFW has ever had. We not only give your officers on the water locations for whales, we also identify eco-type. When your crew is spread thin (which is pretty much always), whale watch vessels have stood in your place and helped as water-borne sentinels. We take pictures and video of boats in serious violation to help your officers make a case. Thousands (yes thousands) of sentinel actions have been performed by whale watch vessels out on the water. We take the time to wave down private boaters, or call them on the VHF to alert them to the presence of whales. It still astounds many of us who have gone to all the meetings, written thoughtful and scientifically-backed letters that none of our input was	Thank you for your comments. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders.

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	<p>taken. When acknowledged experts like Dr. Ken Balcomb or Dr. David Bain give you testimony that is then ignored, it astounds us. When the class of vessels (private motor vessels) that account for over 75% of incidents recorded on the water are given carte-blanche to do as they please around SRKWs while commercial whale-watch vessels, who are consistently most in compliance with the regulations are excluded, it astounds us. When your own officers who are out on the water ,and are the ones working with us tell you this isn't the way to be going (and they have said this), it astounds us. Maybe, just maybe there is still time to change this draft. That experts in the field will be consulted. If this draft goes forward as written, commercial whale watchers will lose an opportunity to teach thousands of people about the whales. To turn passengers into passionate advocates for the whales. If this draft goes forward, WDFW will lose all their credibility that they are working to save these whales using the best science and fact-based information. WDFW will lose all their real-time updates on where the whales are (and the majority of updates come from areas NOT included in the proposed no-go zone, but WDFW only knows about that from reports they get from the commercial boats). If this draft goes forward, the biggest loser will not be the whale watch boats. It will be the SRKWs, who will lose their protection from the educators/sentinels that observe, preserve and educate--the commercial whale watchers. I welcome your reply. Thank you.</p>	
Kerri McCarthy	<p>Everything possible should be done to protect orcas. Please restrict activities that threaten them.</p>	<p>Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders.</p>
Karen D	<p>Attacking commercial whale watching only isn't protecting the whales. Raise license fees on private boating and make all vessel users take test on rules to protect wildlife.</p>	<p>Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders.</p>
Art Whittlesey	<p>Way too complicated, just like the fishing regulations. Keep it simple. Give the whales their space most of the time. Off limits for these commercial vessels and tour boats that get up on them and follow them for hours every day. Gross. Once again a small group of people ruin for those of us that happen to be in the same area as the whales a couple times every five years. We turn off our motors and let them pass and enjoy the awe inspiring beauty of nature and</p>	<p>Thank you for your comment.</p>

Name & Affiliation (if provided)	Comment Submitted	Response
	circumstance. Awesome. But to chase them and annoy them is weird. But please keep it simple.	
Mary Ellen Smith	I wholeheartedly support Alternative #1 and want to encourage WDFW to do everything possible to strengthen the survival options for the Southern Resident Killer Whales (SRKW). I am in favor of very stringent restrictions. For example, no more than 1 CWW vessel at a time for no more than 10 minutes during a specified 2-hour time slot on one specified day each week between October 1 and March 1 if there are no calves under one year of age present. No other CSS intrusions or disturbances should be allowed. It is imperative that we give them their space and the solitude they need to find food, feed, and raise their young without disturbances from we humans. After all they were here long before us and we should respect that longevity and ensure that they survive and thrive long into the future.	Thank you for your comment.
Roger Lahti	As long as salmon and Orcas are endangered there should be no commercial whale watching or commercial salmon harvest within Washington State waters.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Mike Beardemphl	I've been fishing puget Sound for 40 years. I know needed money comes from whale watching charters but my experiences are that these charters have a far greater negative impact creating stress to the whales than fishing boats. I suggest shutting them down. As fishermen, we leave an area with Killer whales as they are bad for fishing. These Whale charters run to the whales, daily. Unknowingly the whales sometimes swim close to them.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Fred Osborn	Please do not impose anymore stringent restrictions on commercial whale watching as the next step will be to limit private boats and fishing in those areas. My suggestions are to put more hatchery fish into the food stream for both the whales and humans. Also, reduce the population of seals and sea lions which devastate the salmon fishery. And finally, it would be good to see a study that shows that the population of the killer whales is similar to what they	Thank you for your comment. Fisheries management is outside the scope of the FEIS as outlined in RCW 77.65.620.

Name & Affiliation (if provided)	Comment Submitted	Response
	were back in the 1980's. Perhaps that number is what is sustainable by nature and that's what should be adhered to. Thank you.	
Kim Beck	Vessels of all sizes can have negative impacts on whales, but I believe that a limited number of professional operators operating under science-based precautions around the Southern Residents provides a net benefit. Not only do boats provide one of the best methods to connect people to whales to inspire advocacy, whale watch vessels contribute important sightings and other data to numerous scientific efforts, and, very importantly, they alert the Navy to the presence of orcas and other animals during active testing periods. Also critical, they regularly intercept private boaters before they drive RIGHT over whales. How many times did we see this this summer? Countless. I suggest a limit on the number of vessels and duration of viewing of Southern Residents, but professionally licensed whale watchers should continue to be allowed to view whales year-round in order to educate the public, inspire love for these whales, contribute to research, and play an ongoing sentinel role on the water. It should be REQUIRED of whale watch operators to inform their customers of the challenges the SRKW's face and the actions they can take to contribute towards their survival.	Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.
Cathleen Burns	restricting commercial whale watching is the absolute least thing that can be done to help the SRKW! It is an easy, feel good effort that is virtually meaningless. Breach the 4 lower snake river dams if people really want to help the whales, this is what science has determined over and over again for decades! Next, stop all commercial salmon fishing! This is stealing what few salmon there are from the SRKW! It is outrageous that a listed species can still be killed endlessly! Then, stop the recreational fishing of chinook! These are ESA listed species that make up 80% of SRKW diet. Then stop all the tanker traffic! That is the real noise source, not smaller boats. If people were serious about helping the SRKW population, we would breach the dams, put a moratorium on salmon harvest (excluding tribes of course!) and keep ALL boats out of the Salish Sea. No one wants to make the sacrifices necessary, so we just make the commercial whale watch industry bear the brunt while no one else makes any sacrifices! And they are the ones sheparding the SRKW, letting the ferries and researchers know where they are. They are doing more to protect the whales now than anything I know about. The rest is endless studies and talk, no action. Everyone should pitch in and make sacrifices to save the SRKW, NOW!!!	Thank you for your comments. The FEIS examines possible actions WDFW could take that are under its jurisdiction. This concept is further explained in the Context for FEIS Alternatives section of Chapter 2. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders in Washington. Fisheries management and other vessel traffic is not within the scope of the FEIS.

Name & Affiliation (if provided)	Comment Submitted	Response
Lynne Kershner	I support Alternative 1. Although I've enjoyed watching whales from boats on many occasions, I believe they are endangered partly because of the stress from boat noise, and should be protected from it as much as possible.	Thank you for your comment.
Hayley Gamble	Alternative 1, most restrictive to vessels should be implemented until Orca populations rebound. Licenses should be capped to limit number of vessels in total, and number of vessels in the vicinity of a pod. License cost should be high enough to cover enforcement.	Thank you for your comment. Enforcement practices are outside the scope of the FEIS per RCW 77.65.620.
Pieter Graham Turley	I am an advocate for the Southern Resident Orcas. My concern is that the WDFA's thinks that the majority the the noise pollution that is having a negative impact on SRKW's is caused by commercial whale watching vessels. This finding is not accurate. Most of the noise pollution comes from container and cargo ships as well as naval vessels. If we want to reduce noise pollution, we need to create legislation and rules for larger commercial and naval vessels to limit their speed when entering Southern Resident Orca territories. Thank you, Pieter Turley	Thank you for your comment. The FEIS examines possible actions WDFW could take that are under its jurisdiction. This concept is further explained in the Context for FEIS Alternatives section of Chapter 2. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders in Washington.
Kathryn Cook	I favor alternative 2 at first, requiring CWW boats to report all sightings, any information on the whales to help research and the number of private vessels in the area. They could help monitor the number of private boats and report if private boats are disturbing the orcas. If they are willing to help with the orca recovery and reporting on recreational boaters, as the health of the population improves, the CWW would be allowed more viewing days and times. I like the adaptive management strategy. I do think it is important for all boats to turn off their sonar/echolocation when they are near any orcas and permanently close areas like the west side of San Juan Island so the orcas have some spots to themselves. It helps all involved to work together to keep the orca population healthy and give them space to roam free away from boats. I favor limiting all boats around the orcas, since they must travel farther now to find salmon. Thanks for putting more restrictions on the CWW and recreational boaters. We need to understand how much they impact the orcas and we need to limit them so the orcas have a chance to recover.	Thank you for your comment. The FEIS includes a section on Adaptive Management in Chapter 2 that addresses ways in which WDFW could manage uncertainties such as SRKW habitat use.
William Golding	Please insure that there is sufficient enforcement of the new regulations - - it is useless to pass well intentioned laws without the teeth of monetary sanctions and incarceration for offenders. This means insuring there is sufficient budget for enforcement.	Thank you for your comment. Enforcement practices are outside the scope of the FEIS per RCW 77.65.620.

Name & Affiliation (if provided)	Comment Submitted	Response
Isak Lopez	I believe all efforts should be made to protect the Southern Resident Orca pods from any audio, visual or physical intrusion by vessels related to the whale watching industry and otherwise. The very small remaining population of these animals continues to decrease and the environmental stresses they're experiencing need to be alleviated as quickly & comprehensively as possible. Significant and direct measures need to be implemented to further protect these animals until a measurable and significant increase in their population has been sustained.	Thank you for your comment.
Amy Nesler	Dear Julie Watson (WDFW Killer Whale Policy Lead) and Kelly Susewind (WDFW Director), I support licensing for commercial whale watching (CWW). Any commercial enterprise involving an endangered species like the Southern Resident Killer Whales (SRKW) should be regulated and adaptively managed to ensure the protection of the species. A simple proposed solution is that the number of vessels on scene with the whales at any given time should be regulated. That number should be a maximum of 4 vessels with any one group of Southern Resident killer whales in the Salish Sea from 9 AM to ½ hour before sunset. This would be a precautionary approach on behalf of the whales, is easily enforceable, and ensures a thriving whale-watch industry. If the Washington Department of Wildlife chooses to go with one or more of the preferred alternatives outlined in the DEIS, I would support the following rules: • Allow CWW to view SRKW between 8 and 11 months of the year. Without any commercial whale watch vessels on scene with the whales in inland waters: o private boats will be less likely to know the whales are present o private vessel operators will not have a model of what safe boating distances and speeds look like o the military will not be made aware when whales are entering active testing zones o researchers will have more difficulty locating and tracking whales, and key observations that are regularly made and reported by whale watch captains and crew, including injured or malnourished whales, missing whales, and new calves, will go unnoticed for longer periods of time. • Up to 4 CWW vessels maximum allowed to view SRKWs at a given time to reduce acoustic impact • CWWs would be limited to spending up to 45 minutes (per vessel) in the vicinity of SRKW • Maintain the go-slow zone of 7 knots within 1 nautical mile of SRKW wherever they travel • Closure of the west side of San Juan Island for commercial whale watch operation should be limited to when whales are present; the rule as written precludes, for instance, vessels going in for a photo-op at Lime Kiln lighthouse on a no-whale day. With the final action, I support all four mitigation measures proposed by the Department of Fish and Wildlife. And we strongly suggest limiting licenses to existing vessels and companies in the Salish Sea. If a company or vessel is sold, the license	Thank you for your comments. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching vessels. Additionally, the FEIS includes a section on Adaptive Management in Chapter 2 that addresses ways in which WDFW could manage uncertainties such as SRKW habitat use.

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>goes back to the state. Any new vessels or companies would be required to obtain a license from that pool. I feel it is important to note that commercial whale watch vessels provide a platform to introduce members of the public to the Salish Sea, educated them about the endangered Southern Residents and other species, and inspire them to help with recovery actions. Professional whale watch companies benefit the whales and the Salish Sea by regularly returning portions of their revenue to habitat recovery efforts and regional research and advocacy causes, reporting stranded, entangled, injured, or ill animals, and contributing to science by sharing sightings data and identification photos, including new calves, with multiple organizations (research, governmental, NGOs). Commercial whale watch operators helped develop the Be Whale Wise guidelines, and their industry guidelines go above and beyond current state and federal regulations and take proactive steps to adjust their viewing guidelines as new science becomes available. In the spirit of this legislation, I feel there should also be limitations on the number of private recreational vessels surrounding the SRKWs. Thank you for considering my comments. Sincerely, Amy Nesler</p>	
Erin Gless- Island Adventures Whale Watching	<p>As a marine biologist and whale watching naturalist, I am both dismayed and disappointed at the recommendations that have resulted from the SEPA EIS process for a commercial whale-watching license. While the Washington Academy of Sciences committee has cavalierly dismissed the sentinel role of whale watching, multiple respected scientists, such as Dr. David Bain, Ken Balcomb, and Monika Wieland-Shields, have spoken out about the benefits of professional whale watching vessels around whales as have notable NGO's like Whale Scout, Orca Network, Center for Whale Research, and Orca Behavior Institute in a white paper delivered to WDFW officials. Soundwatch and WDFW law enforcement officers have echoed these sentiments in public comments, stating that whale watching vessels help "control the chaos" and that whale-watching boats help ensure that other vessels in the area operate appropriately around whales. Soundwatch reports show that the number of private vessels around whales decreases when whale watching vessels are present, as do the number of whale-watching infractions. The EIS not only proposes incredibly restrictive regulations for viewing Southern Resident killer whales, but aims to implement crippling limitations on the viewing of all whales including Bigg's killer whales and humpback whales which are absolutely thriving in this region. The proposed rules in Alternative 1, 2, and 3 would both devastate professional whale watching operators financially, decreasing ridership by percentages above the threshold that an economic viability analysis deemed to be threatening to viability, but they also leave all whale species in the Salish Sea vulnerable to vessels operating too fast or</p>	<p>Thank you for your comments. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3. The FEIS process does not require an economic cost-benefit analysis, and the discussion of impacts to recreational opportunities was not intended to serve as a cost-benefit analysis. Consideration of economic viability of the industry is part of the broader rulemaking process, which includes the Economic Viability Analysis and the Small Business Economic Impact Statement.</p>

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>too close to wildlife. Limiting the months, days, and hours that professional whale watching vessels may view *any* species of whale in the region seems draconian and vindictive on behalf of WDFW. There is a better way. I urge WDFW to collaborate directly with Pacific Whale Watch Association operators to develop a licensing system that is enforceable, viable economically, and will not result in undue harm to Southern Resident killer whales or any other species. Washington already has the most responsible whale watching community in the world. Rather than attempting to eliminate it, Washington should proudly embrace the proactive measures that operators here have taken to protect local wildlife and work together with, as opposed to against, the whale watching community.</p>	
William Appel	<p>The proposed regulation does not cover private small boaters, to whose boat licenses the same regulation should be attached as a licensing condition of operating in the Salish Sea. Otherwise, there is a gaping hole in the purpose of the regulation. It is unclear to what extent Canadian vessels are subject. Finally, some dispensation should be made for boats that are electrically powered as their presence is not so deleterious to whales.</p>	<p>Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to CWW license holders in Washington. The FEIS addresses electric propulsion considerations in the Potential Rulemaking Components Considered section of Chapter 2.</p>
Cynthia Jones	<p>The economic analysis completed regarding rules for commercial whale watching has reinforced our knowledge that our tenuous Southern Resident Orca population is harmed by the noise and disturbance of boats and vessels. It further finds that commercial whale watching boats do not play a role in helping scientists and other boaters locate the Orcas. Furthermore, it found that most commercial whale watching boats are no longer reliant on the Southern Resident Orcas for the bulk of their whale watching business and instead rely on more abundant species. It is time for us to implement more stringent requirements regarding approaching Orcas. We know that our presence disrupts and harms them. We know that their population is tenuous and has been suffering decline. If we wish to maintain our iconic population of Southern Resident Orcas, we must work together and restrict access to the whales. If we do not do this, we risk the continued decline and eventual loss of the population. To maintain a population for the future, we must allow the Orcas the opportunity to rebuild unmolested by commercial whale watching. Thank you.</p>	<p>Thank you for your comments.</p>
Francie Rutherford	<p>I believe we need to transition to shoreline watching of whales. Thus I believe alternative 1 is the proper way to go to save this iconic species. If we keep disrupting their feeding we will lose them forever. Please put the stiffest regulations in place. I also believe we need more</p>	<p>Thank you for your comments. Enforcement is outside the scope of the FEIS.</p>

Name & Affiliation (if provided)	Comment Submitted	Response
	patrolling of their habitat by WDFW because pleasure boaters are often oblivious to the presence of whales in waters near them.	
Judy Tyson	The southern resident orca population is a unique group which desperately needs our protection as there are only 74 of them left. We know that noise from vessels and disturbances interfere with their search for food and normal interactions with each other. This is one area which we can improve by restricting tour operators which have the alternative of going out to the open ocean to observe the orcas which live there instead. We should definitely pass the draft of regulations the state has issued which include: a ban on motorized whale watch tours within a quarter mile from shore on a portion of the west side of San Juan Island; a limit to no more than three motorized commercial whale watch tours that could watch any one group of southern resident orcas at one time; prohibiting motorized tours from watching southern residents with a calf under one year of age, or one showing signs of illness or injury. In addition, there should be seasonal restrictions on whale watching--tours should be required to stay one half mile away from the resident whales between Oct.1 and June 30th. From July1 through Sept. 30 tours should be restricted to two time periods a day from 11am to 1pm or from 3pm to 5pm and allowed to only use one of those time periods a day. I would like to see stricter regulations implemented such as no more than three tour boats ever be allowed to "view" the whales and they must stay 3/4 of a mile away from the whales. It's time for the Dept. of Fish and Wildlife to take a strong stand in protecting our resident population.	Thank you for your comment.
Carol Bradley	I definitely agree that commercial whale watching should follow the draft rules to reduce the impact on the Orcas. I think that ALL boats should be required to stay that distance away from the Orcas - not just the Commercial vessels.	Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders in Washington.
Selene Russo	I absolutely support the proposed rules to license the whale watching industry and restrict tours around the southern resident orca populations. The science has shown that one of the best ways to help our resident orcas is less boat traffic. And we need to ensure the strength and success of the whale population now, so we can in the future have better whale watching opportunities.	Thank you for your comment.
Shawn Flood Brown	I am 100% in favor of restricting whale watching. I have personally observed boaters who do not respect current rules many times in the South Sound, as well as in the San Juans. As a	Thank you for your comment.

Name & Affiliation (if provided)	Comment Submitted	Response
	lifelong Washingtonian, I believe residents should have more of a say in protection, as opposed to whale watching tour providers. The tour operators may be local, but they serve mainly out of state tourists who do not have an investment in protection of our iconic local wildlife. What would the PNW be like without salmon and orcas? I also believe more protection would show respect to our Native American tribes in the PNW.	
Amy Mann	It is a delicate balance of the worthwhile concerns for the health and safety of individual whales and the pods, the economic concerns of the companies providing where watching tours and the need to educate the general public about why this matters. Nothing should be simple one this life. Thank you for all your are doing to achieve needed balance between our environment and people.	Thank you for your comment.
Mary Williams	Overall, it looks like a good start to protecting the whales while maintaining the whale watching industry which is a driver for tourism in the area. I do think the fine for violating 220-460-090 is low (\$500) but the cumulative punishments for an operation and the industry balances this out. I didn't seem to see any guidance for "getting out of the way" if a pod is coming toward you, but my guess is that it exists in other legislation. I hope that there are standards of equal strength for private boats as well (particularly large and motored). Thank you for this opportunity to provide input.	Thank you for your comment. Enforcement is not within the scope of the FEIS, as outlined by RCW 77.65.620
George Winters	I have paid for and taken a whale watching tour. Frankly, I was appalled and horrified by the incredible harassment of the whales. The boat operator used radio and radar to make sure every boat in the region knew exactly where the whales were. I would never do that again! Please eliminate commercial whale watching entirely.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Hughes	I am very much in favor of continuing to protect the whales! I love that there are more restrictions being considered re: whale watching industry. Please continue to do this good work and please put these regulations in place. I personally think the entertainment of (typically well off) humans is less important than the survival of another species. The economic hit of the whale watching industry can be worked through, but once the whales are gone, that's it! Also, the economic hit will come eventually (and be worse!) if the whales are completely gone. Thank you!	Thank you for your comment.

Name & Affiliation (if provided)	Comment Submitted	Response
Nancy Hannah	Why do we need to get up close to the Orca's? I think we should put a moratorium on whale watching for 3 years to give them time to breed, fish, and basically get in a healthy place. If I had to choose one of the alternatives in the EIS it would be the most restrictive . Please put the lives of these wonderful creatures ahead of human frivolity.	Thank you for your comment. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Donna Sandstrom-Whale Trail	I've got three high level comments. One is that in the executive summary, the purpose of the whale watching licensing program has been misstated. The law says that these rules must reduce noise and disturbance on the Southern Resident killer whales first and consider the financial impacts on license holders. Note that order. So we recommend that that be rewritten to reflect the actual intent, purpose, and language of the law. Second, there is no -- the Department -- the DEIS is deficient because it does not include a true precautionary option. Mixing zero boats with two boats is a very different -- is a very different proposition. The Department has chosen to present four alternatives that all allow whale watching. But the Department must evaluate its rules by the language in the law, which is how well do these rules reduce noise and disturbance on the orcas. There is one value represented in the status quo, which is no change in maximum disturbance on the orcas. There should also be a corollary of minimum disturbance on the orcas, and that would be a zero option for zero boats around the whales throughout the year. I don't know how the Department can make an evaluation without having that as a comparison. So we think that DEIS is very deficient in that, and a true precautionary alternative must be included in its evaluation. On page -- let's see. On page 18, the Department-- or the DEIS mentions the Southern Residents not coming back to the Salish Sea and basing that on prey availability fluctuations only. But we believe that the Southern Residents are not returning to the Salish Sea also because they can't find the prey that is there when they come home because of the excessive noise and disturbance that is placed on them by this discretionary activity. So we would like the DEIS to better reflect the science and not make assumptions about why Southern Residents are not coming back. And finally, the Department -- the DEIS talks about land-based viewing within San Juan County as if that is the only place it occurs. I want to remind the Department and the authors that land-based whale watching occurs all around this state. In fact, the Whale Trail now stretches throughout the orca's range from Monterey up to Ucluelet and throughout the Gulf Island and the Salish Sea. So when -- the Southern Residents are beloved and watched by people	Thank you for your comment. The FEIS includes and updated purpose statement in its Executive Summary and Introduction, as well as additional information about the precautionary principle in the Context for FEIS Alternatives section of Chapter 2. The FEIS includes the clarification that land-based whale watching occurs throughout Washington in its Introduction.

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>from shore around the Pacific Northwest, not just in San Juan County. And I'll save the rest of my -- oh, no. I've got one more comment. Any notion of a sentinel activity is not supported by the science -- was not reported by the science panel, and it is -- runs counter to what most of us observe, which is that the industry serves as a magnet for recreational boaters. And if the industry was really concerned about recreational boating, we wonder why they fought the moratorium so hard that would have protect the whales -- protected the whales from recreational boaters, too. Thank you for the opportunity to comment.</p>	
Kelley Balcomb-Bartok- PWWA	<p>And I am the Pacific Whale Watch Association's communications director. And I want to thank Julie and all of you for all of your time and efforts through this process over the past year, and we will be providing additional material and written comments and we'll have some new scientific data. So I will segway right into the sentinel role. In August 2020, a Washington State Academy of Sciences report prepared for WDFW stated, there is insufficient evidence for a positive sentinel effect on commercial whale watching, and this topic needs further study. We concur. Just as the science panel has stated, there is not time to conduct more peer-reviewed research prior to implementing new restriction. The PWWA maintains that while there are not yet peer-reviewed studies supporting the sentinel role that commercial whale watching vessels play on the water, the potential harm of removing whale watchers is so great that the anecdotal evidence from the land-based educators, WDFW enforcement officers, Sound Watch observers, and PWWA captains and crew should be sufficient until further study can be conducted. The 2019 Sound Watch report examined the number and behavior of private vessels around whales when professional whale watch vessels were present. They found that the number of private vessels and the number of boater infractions around whales both decrease in the presence of professional whale watching vessels. Observationally, the Sound Watch crew noted that transiting vessels tended to move away or slow down as they continued to proceed through the area when witnessing the whale warning flag versus stopping to view the whales. In other words, by being present, whale watching vessels keep the overall number of boats near whales lower and ensure that boats that are in the area are operating safer and quieter. In 2020 -- I'll go skip that one. These actions range from alerting the military of whales in exercise areas, notifying ferries and shipping vessels of whales in their path, and preventing private boats from traveling too close or too fast near whales. 203, 65 percent of these actions of 313 -- sorry, 314 sentinel actions as of yesterday -- Saturday when we actually post a video on our Facebook page and our Twitter handle, which was re-tweet by the DNR's commissioner of public lands, Hilary Franz -- go check it out on her Twitter</p>	<p>Thank you for your comments. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.</p>

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>page -- showing an actual sentinel action live on video All right. So now I segway. 203 of those, 65 percent of these actions resulted in a positive change in behavior by the reported vessel The draft WDFW rules also propose that it will be unlawful to enter the vicinity of a group of Southern Resident killer whales that has a calf under the age of one or an individual that is vulnerable. This is something that is near and dear to my heart. In so many cases, including most recently with the birth of the newest Southern Resident calf, J-58, it is -- whale watching vessels were the first to document births. They are also often the first to report injuries, entanglements, or illnesses, and routinely assist researchers and enforcement in locating animals of concern. Mothers with young calves, animals that are entangled, or whales that are injured are the most susceptible to vessel collision or harassment, as they often move slower and less visible than the most whales. These are the whales that need the sentinel protection of commercial whale watching vessels the most, and I would say professional whale watching vessel. Combining the findings of peer-reviewed literature of underwater acoustics and anecdotal evidence of commercial whale watching sentinel role, there is consensus that professional vessels operating slowly and responsibly around whales are not only quiet themselves, but help to quiet others. This is not a simple case wherein the subtraction of whale watching vessels would lead to a subtraction of underwater sound. In fact, the opposite is true. Removing professional whale watchers from the area will increase the number of overall vessels around whales and the amount of underwater sound that the whales will be exposed to. We will be providing this in written comments, so if you didn't get all that, we will be the providing this. Thank you.</p>	
Janet Thomas-Orca Relief's Citizen Alliance	<p>I live on San Juan Island. I've lived here for 30 years. And I'm also the director of Orca Relief's Citizens' Alliance. It's an organization that's been working for more than 20 years to save the Southern Residents from extinction. Extinction is an extremely important word. They are facing imminent extinction. This is one of the most intelligent marine mammals on the planet. They're sacred to the peoples of the Salish Sea. They have a complex communication system. They remain in their families. They're extraordinary marine mammals. The Southern Resident killer whales are critically endangered and facing imminent extinction. Over 50 research papers have shown that the presence of motorized boats negatively impacts the sonar abilities of the Southern Residents. It increases their stress and decreases their ability to navigate, communicate, and access available salmon. The situation is critical. These long revered residents of the Salish Sea need disturbance- and noise-free waters in order to access their diminishing food supply of Chinook salmon. Moves are underway to remove dams and</p>	<p>Thank you for your comment. The FEIS includes additional information about the precautionary principle in the Context for FEIS Alternatives section of Chapter 2. The FEIS process does not require an economic cost-benefit analysis, and the discussion of impacts to recreational opportunities was not intended to serve as a cost-benefit analysis. Consideration of economic viability of the industry is part of the broader rulemaking process, and include the Economic Viability Analysis and the</p>

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>obstructions throughout the rivers of the Northwest, which will help Chinook salmon return to strength in numbers. Eventually, this will help the Southern Residents' food supply, but it will take time, and they do not have time. They need every possible access to the salmon that is available. It is their only chance of survival. The Academy of Sciences released its final report in August 2020 for the Department of Fish and Wildlife. Key finding: There is insufficient scientific evidence to support a sentinel effect, in which the presence of commercial whale watch vessels, an active outreach by operators, serves to alert and slow other vessels. There is insufficient scientific evidence to support this. Many of the justifications about the effect of commercial whale watching in reducing overall vessel impacts are unsupported by current scientific evidence. The science report determine that given the fragile condition of the Southern Resident population, the committee considers the precautionary approach to management of known stressors to be justified. Over the past decade, while the Southern Resident orcas continue to decline, the number of whale watch vessels more than doubled, and revenue nearly tripled. The report states there is no economic justification for commercial operators to get close to the Southern Residents. In fact, not watching the Southern Residents is better for business because the public responds favorably to good environmentally aware decisions. The science committee recommends defining every interaction with a Southern Resident as an opportunity to disturb a whale. There is insufficient evidence for positive sentinel effect, as claimed by the industry. In 2019, the Washington state legislature passed a law requiring the Washington State Department of Fish and Wildlife to adopt regulations for viewing Southern Residents in Washington's inland waters. The law says the rules must be designed to reduce the daily and cumulative impacts on Southern Residents and consider the economic viability of license holders. The economic report prepared for fish and wildlife concluded that the motorized whale watch industry is not financially dependent upon Southern Resident viewing. The industry remains highly profitable despite reductions in Southern Resident viewing opportunities over the past ten years. Historically, the Southern Residents spent many hours at a time foraging, resting, and socializing in their core critical habitat along the west side of San Juan Island. Due to whale watching harassment, they can no longer do so. Canada put key -- I will finish up. I will be submitting, but I also wanted to say, as a 30-year resident at San Juan Island, I and many other residents can no longer go and watch from shore because it's too painful to watch the harassment of the Southern Residents by the industry. Thank you for this opportunity.</p>	<p>Small Business Economic Impact Statement.</p>

Name & Affiliation (if provided)	Comment Submitted	Response
Lovel Pratt- Friends of the San Juans	<p>And I'm the marine protection and policy director at Friends of the San Juans, and I want to thank you for hosting this online hearing tonight. I just want to follow up with comments. First of all, I want to talk about the cautionary principle, which is really critical in this rule making. And I would urge that in the DEIS, in the section on uncertainty, that the findings of the science panel regarding the precautionary principles should be clearly stated in this section. I'd also like to talk about the sentinel effect that's been mentioned tonight. And while I agree - - while there may be examples of commercial operators providing sentinel effects to benefit the whales, the science report is the best available science. And legislature has made clear, the best available science must be used to establish the rules. The science panel report clearly states that, "There is insufficient evidence for a positive sentinel effect of commercial whale watching." And that more study is needed. I'd also like to comment on what was stated earlier by Rein Attemann. The DEIS should not be considering recreational opportunities provided by commercial whale watch operations. Consideration of recreational opportunities is not part of the legislative mandate. And further, there are many opportunities in terms of viewing transient whales and other marine mammals, humpback whales on commercial whale watch operations. And there are many recreation opportunities to view Southern Residents from shore. Bottom line, this rule making is very specifically defined by the legislature, and they're very clear that considering recreational opportunities is not part of their mandate. And that said, I do agree with the comments that have been made that there are regulations needed to regress the impact of recreational boats -- impacts to the Southern Residents by recreational boats. But again, this isn't part of the legislative mandate, so unfortunately, we can't address that at this time. Thank you very much for having this opportunity to comment.</p>	<p>Thank you for your comment. The FEIS includes additional information about the precautionary principle in the Context for FEIS Alternatives section of Chapter 2. Recreation is one of the sixteen environmental elements listed by SEPA to be considered in an EIS.</p>
Rein Attemann- Washington Environmental Council	<p>I'm from the Washington Environmental Council. And thank you very much for Shelby and Julie and the rest of the crew for this year-long -- almost a year-long process to bring together a system for commercial whale watching licensing program for Washington state and rules for viewing the Southern Resident killer whales. I very much echo comments made by Donna Sandstrom earlier this evening. We believe that alternative one, which is the most restrictive, quote, unquote, of the four options, is flawed. If DEIS has a status quo alternative, which is number four here, there should be an alternative that clearly states zero motorized commercial whale watching boats in (audio disruption) Southern Residents as well in order to be fully considered. It almost would be the most cautionary (audio disruption). Similarly, we believe that alternative three is not meaningfully different from alternative four, which is the</p>	<p>Thank you for your comments. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life. The FEIS includes additional information describing SRKW history, habitat, and population dynamics in the Introduction that was not in the DEIS. WDFW is</p>

Name & Affiliation (if provided)	Comment Submitted	Response
	<p>status quo. Alternative three allows five to ten commercial whale watching vessels and status quo is unlimited. And Sound report has shown that the average amount of commercial whale watch vessels around a Southern Resident is five. Furthermore, DEIS should not be considering the recreational opportunities provided by commercial whale watch operations. This final rule lends recreational opportunities for recreators is now part of the legislative mandate. So we're urging the DEIS not to -- ask not to include analysis on that. The DEIS lacks basic information on Southern Resident orca population, like the population dynamics of females and males and their reproductive success. Great details needed about the Southern Residents' habitat use, like foraging areas. And besides stating that Southern Residents eat fish and have a strong presence for Chinook salmon -- excuse me. The scientists say Southern Residents eat fish. You need to identify what percentage of their diet is Chinook and what percentage of their diet is not Chinook. That has a key factor in determining their survivability. Also greater explanations needed explained how Southern Residents locate their prey. And the DEIS is seriously deficient in presenting the best available science around vessel noise disturbance on orcas. Factors affecting whales include the numbers of vessels, the speed, distance, and type of vessels around them. And finally, the overview of the whale watching in Washington section lacks sufficient information on a historical lens and how that has grown and the economics of how they're faring. In the earlier slide in the presentation that Shelby presented, I was stunned that there was no mention of the economic analysis that was done during this rule-making process. But there was reference to Washington Science Academy's science report and the legislative mandate. But nothing on economic analysis which states that not viewing Southern Residents by the whale watching will not have an economic viability issue for that industry. So that needs to be also incorporated into the final DEIS. And we'll provide written comments later in the week, but thank you for this opportunity to provide some oral comments.</p>	<p>considering the economic viability of the CWW industry during its rulemaking process. The FEIS process does not require an economic cost-benefit analysis, and the discussion of impacts to recreational opportunities was not intended to serve as a cost-benefit analysis. Consideration of economic viability of the industry is part of the broader rulemaking process, which includes the Economic Viability Analysis and the Small Business Economic Impact Statement.</p>
Whitney Neugebauer- Whale Scout	<p>The commercial licensing process gives an opportunity to ensure whale watching in the state is being done in a controlled and is well managed, however it does not address the immense pressure being put on the whales by private boaters. Changes to commercial operations can have significant implications for private boater behavior which could be detrimental, including high speed incidents and strikes. The sentinel role the professional, commercial operators play on the water needs to be better understood prior to making significant changes.</p>	<p>Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as</p>

Name & Affiliation (if provided)	Comment Submitted	Response
		both sentinels and magnets in the Mitigation Measures section of Chapter 3.
Cathleen Burns	I have been here two years observing the whales by land and on the water, specifically with Sound Watch. And my experience has been the whale watch industry are the sentinels for the whales, and the egregious behavior is by the recreational boaters that run over the whales at high speed. And even when approaching recreational boaters and telling them whales are ahead, they still have continued to pilot right over the whales. I know this is not about recreational boaters. That is where the greatest harm is being done that I have personally witnessed. So I would want the whale watch industry out there as the good stewards I have witnessed since I have been there in the last two years. That's it.	Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.
Mark Vigna	It is unfathomable to me that we allow whale watching vessels to follow the Southern Resident Orcas. I live on the water just north of Kingston and have a direct view of all activities on the water and I monitor the whale watching boats closely. Regardless of what precautions they may claim to take, the reality is that they strive to give their customers a close-up experience with the whales. I have witnessed on MANY occasions the boats line up in the path of the whales. While following and when in pursuit as the whales gain speed, they accelerate, and the engines are at a tremendous decibel level—I can literally hear them roar at 4-5 MILES away. Given ALL that we are struggling with to help save the Southern Residents, how is it even possible that we can allow large watercraft to follow them relentlessly for 10 (plus) miles at a time? There are other ways for people to view whales and this current practice is one step shy of Sea World. 20 years from now, we will look back at this and think it to be barbaric or tragic, similar to how early explorers broke off stalactites in caves as souvenirs.	Thank you for your comment.

Appendix C-2: DEIS Public Comments and Responses (Excerpts from Letters)

The comments below are in scope excerpts from letters submitted during the DEIS 30-day public comment period (see Appendix C-3 for full letters). The letters and excerpted comments are listed in the order in which they were received. The reference numbers correspond to annotations on the letters in Appendix C-3.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Sorrel North-Southern Resident Protection	1	<i>See full letter in Appendix C-3</i>	Thank you for your letter.
Shane Aggergaard-Island Adventures	2	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Shane Aggergaard-Island Adventures	2a	Island Adventures tours vary in length between 4 to 5 hours. During peak season, we offer two tours a day and require adequate time between tours to safely unload passengers, clean the vessel, and load passengers for the next tour. In addition to only being allowed to operate a few days each week, we would also be unable to offer two tours each day, therefore losing even more whale watching opportunities than the 29 to 57 percent proposed by the EIS.	The effects of timing restrictions on CWW activity depend on the ability of the industry to adapt (e.g., by shifting some level of activity to allowable times and days). The extent to which the industry can adapt depends both on the length and specific timing (i.e., which days, hours, seasons) of the restrictions, as well as the flexibility of the operations to adjust. With respect to restrictions on the days CWW is allowed, the DEIS presents the percent change in the days of the week which would allow CWW activity. For seasonal- and hours-based timing restrictions, the DEIS generally describes the restrictions qualitatively (i.e., they are not included in the reported percent change in CWW days of the week). The percent change in CWW days is not intended to represent the effect of the restrictions on percent change in overall CWW activity level. Depending on the specific timing restriction, some or all of the CWW activity may be shifted to

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
			allowable timeframes. The percent change in CWW days does not reflect this potential for adaptation. Of note, DFW has not included timing restrictions on overall CWW activity within its proposed rule; the timing restrictions currently proposed are limited to viewing of SRKW.
Shane Aggergaard-Island Adventures	2b	The EIS states that this will reduce commercial whale watching opportunities by 14 percent. During peak season, we traditionally offer a morning and afternoon tour each day, with the afternoon tours ending later than 2 hours prior to sunset depending on the time of year. If viewing of all whales must end 2 hours before sunset, this would prohibit us from operating our afternoon tour. The EIS report states that these later tours represent “a small portion of current commercial whale watching activity”, but for Island Adventures, these afternoon/early evening tours comprise 50% of our peak season tour offerings, therefore we would be affected much more than the report’s predicted 14 percent.	The effects of timing restrictions on CWW activity depend on the ability of the industry to adapt (e.g., by shifting some level of activity to allowable times and days). The extent to which the industry can adapt depends both on the length and specific timing (i.e., which days, hours, seasons) of the restrictions, as well as the flexibility of the operations to adjust. With respect to restrictions on the days CWW is allowed, the DEIS presents the percent change in the days of the week which would allow CWW activity. For seasonal- and hours-based timing restrictions, the DEIS generally describes the restrictions qualitatively (i.e., they are not included in the reported percent change in CWW days of the week). The percent change in CWW days is not intended to represent the effect of the restrictions on percent change in overall CWW activity level. Depending on the specific timing restriction, some or all of the CWW activity may be shifted to allowable timeframes. The percent change in CWW days does not reflect this potential for adaptation. Of note, DFW has not included timing restrictions on overall CWW activity within its proposed rule; the timing restrictions currently proposed are limited to viewing of SRKW.
Cindy Hansen-BOLD	3	<i>See full letter in Appendix C-3.</i>	Thank you for your letter.
Cindy Hansen – Orca Network	4	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Cindy Hansen-Orca Network	4a	We do not believe that the current alternatives provided in the DEIS encompass the educational benefits of whale	Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		watching, nor acknowledge the sentinel role that professional captains and naturalists provide to other vessels when on the water.	sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.
Cindy Hansen-Orca Network	4b	Much of the available science in the DEIS is based on older studies that do not incorporate current regulations and voluntary practices by PWWA.	Thank you for your comment. The FEIS analysis relies on the best available science as compiled by the Washington State Academy of Sciences and highlights PWWA best practices where applicable.
Cindy Hansen-Orca Network	4c	The outlined alternatives restrict CWW...the basis for any proposal removing CWW...is unclear and not supported by the science.	Thank you for your comment. The FEIS alternatives are designed to provide a comprehensive range of possible actions, including those listed in RCW 77.65.620, that will allow WDFW to develop rules that maximize ecological benefits to SRKWs and reduce negative economic impacts to the CWW industry.
Shari Tarantino-Orca Conservancy	5	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Shari Tarantino-Orca Conservancy	5a	<p>In addition to defining alternatives, an important function of the DEIS is to identify reasonably foreseeable consequences and consider cumulative effects. While the DEIS describes the alternatives, and takes a modular approach facilitating combining the best features of each alternative into a new alternative for the final EIS -- it does an inadequate job of addressing foreseeable consequences and considering cumulative effects....</p> <p>Rather than debating past data, they should have discussed what was reasonably foreseeable under proposed licensing requirements.</p> <p>Further, the discussion of what was reasonably foreseeable should have addressed cumulative effects. That is, while the licensing requirements will only apply to commercial whale</p>	Thank you for your comment. The FEIS acknowledges uncertainty in the Analysis Limitations section of Chapter 3. The FEIS also includes additional information describing SRKW history, habitat, threats, and population dynamics in the Introduction that was not in the DEIS.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		watching (CWW) operators, SRKWs face other threats that it is reasonably foreseeable where CWW could help mitigate (including noise exposure from other vessels, toxic chemicals, and prey shortages).	
Shari Tarantino-Orca Conservancy	5b	An underlying point of contention is whether under the licensing requirements is how CWW vessels will play a protective role. Bain (2007) reported on vessel behavior observed from shore in the presence and absence of Soundwatch, and found close approaches to whales were more common when Soundwatch was absent than when it was present, and that Soundwatch alone lacked the capacity to prevent all violations. That being said, this confirms that vessels on the water can have a protective function. Regardless of what past data show about the protective role of CWW, it is reasonably foreseeable that CWW vessels emulating Soundwatch's approach to vessel management could serve a protective role, if required to do so as a licensing requirement.	Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.
Shari Tarantino-Orca Conservancy	5c	It should be noted that the number of vessels includes recreational whale watching vessels, other recreational vessels, research vessels, fishing vessels, and may include commercial shipping, military and other vessels. Therefore, regulating CWW vessels alone will not achieve vessel number targets, and it is reasonably foreseeable that vessel licensing requirements could enlist CWW in co-managing the behavior of other vessels in achieving number targets. Thus, co-managing vessel number could be made a licensing requirement, reporting on vessel number should be required, and success in limiting vessel number should be a consideration in license renewal and adaptive management.	Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching vessels.
Shari Tarantino-Orca Conservancy	5d	A foreseeable consequence of limiting CWW is that potential passengers will whale watch from recreational vessels	Thank you for your comment. The FEIS describes potential unintended consequences in Chapter 3. Although WDFW is not

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		instead. This would be expected to result in an increase in the number of vessels around whales by operators less skilled in determining speed and distance and who have less comprehensive knowledge of whale locations and likely movements, should a moratorium on CWW be implemented. The result would be a decrease in impact from CWW, but an increase in overall impact from whale watching.	considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Shari Tarantino-Orca Conservancy	5e	Group membership changes frequently. Thus, when a vessel leaves a group, another vessel, whether commercial or recreational, is likely to take its place. If and/or when a whale changes groups, it may or may not have the same duration of viewing history as members of its new group.	Thank you for your comment. The FEIS defines a group of whales as one or more individuals. The concept of how impacts may change depending on the definition of group of whales is discussed further in Chapter 2. The FEIS components apply when CWW vessels are in the vicinity of SRKWs, regardless of their groupings.
Shari Tarantino-Orca Conservancy	5f	In general, CWW should not need to use sonar when with whales. Best practice would be to not operate close enough to shallow water where loss of control could result in a grounding, and sonar use would not add to safety in that context. Exceptions would be larger vessels that are required to use sonar to comply with federal regulations. Further, use of sonar must be allowed near port where shallow water is to be expected, but whale presence is not, and running aground is a possibility.	Thank you for your comment. The FEIS sonar component in Chapter 2 is only applicable to CWW vessels when in the vicinity of SRKWs.
Shari Tarantino-Orca Conservancy	5g	Shore-based monitoring is another approach to assessing how recreational vessels behave in the presence and absence of CWW. Therefore, self-reporting on sentinel actions and their success or failure will be important both to increasing the success rate and evaluating the cumulative effect of all vessels on the water.	Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching vessels.
Shari Tarantino-Orca Conservancy	5h	It is reasonably foreseeable that navigational safety considerations will require kayakers to be within 300 yards of SRKWs at times, but it should be recognized that kayaks are	Thank you for your comment. The FEIS recognizes that SRKWs are impacted by the presence of non-motorized vessels but the best available science does not indicate the exact range in which kayaks may or may impact SRKWS.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		unlikely to have an impact until they are within 100-200 yards.	
Tim Ragen	6	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Tim Ragen	6a	The DEIS description of SRKW demography, status, and trends is incomplete and inadequate.	Thank you for your comment. The FEIS includes additional information describing SRKW history, habitat, and population dynamics in the Introduction that was not in the DEIS.
Tim Ragen	6b	The DEIS does not consider a no-CWW alternative	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Nora Nickum-Seattle Aquarium	7	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Nora Nickum-Seattle Aquarium	7a	There should be an alternative that clearly states 0 motorized commercial whale-watching boats in the vicinity of southern resident orcas (at least 0.5 nautical miles) for the full year. That would be most precautionary and protective	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all of its component ranges which would eliminate CWW impacts on SRKWs and all marine life.
Nora Nickum-Seattle Aquarium	7b	We cannot support an alternative that would restrict all commercial whale-watching operations, for viewing any species of wildlife. Restricting all commercial whale-watching was not the charge or intent of this legislation, nor was it proposed by any of the Advisory Committee members. It muddies the “most restrictive” Alternative 1 by making it excessively restrictive with regard to other species while overly lenient with regard to viewing the critically endangered southern residents	Thank you for your comment. The FEIS alternatives are designed to provide a comprehensive range of possible actions, including those listed in RCW 77.65.620, that will allow WDFW to develop rules that maximize ecological benefits to SRKWs and reduce negative economic impacts to the CWW industry.
Nora Nickum-Seattle Aquarium	7c	Furthermore, it effectively eliminates from consideration the limitations on viewing southern residents by tying those	Thank you for your comment. The final action chosen by WDFW may not be identical to any single alternative; the agency may

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		limitations to untenable restrictions on all commercial whale-watching. As stated on page 24, “As it is currently constructed, Alternative 1 is unlikely to meet the WDFW mandate. Alternative 1 places restrictions on CWW operating days/time that may not be economically viable for CWW license holders.” Alternative 1 should have been constructed in good faith in a way that could reasonably meet the WDFW mandate	choose a hybrid that combines more and less restrictive expressions of the alternatives to best meet its legislative mandate (RCW 77.65.620).
Nora Nickum-Seattle Aquarium	7d	Requested change: Modification of Alternative 1 or inclusion of a new alternative with 1) no motorized commercial whale-watching boats in the vicinity of southern resident orcas for the full year, and 2) no restrictions on whale-watching of other species.	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all of its component ranges which would eliminate CWW impacts on SRKWs and all marine life.
Nora Nickum-Seattle Aquarium	7e	Suggested edit to page 22: “This alternative would likely result in the most substantial reductions in daily and cumulative noise and disturbance impacts to SRKWs from CWW vessels, particularly from the components that limit vessels around SRKWs and the times for CWW operations and SRKW viewing, assuming that the limitations apply to the peak whale-watching season (i.e., May through September) or year-round.”	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis in Chapter 3, including that limitations would apply to the peak whale-watching season or year-round.
Nora Nickum-Seattle Aquarium	7f	Alternative 2 could cover 4 months, 7 months, or year-round; without being more specific in terms of duration and the seasons that would be included, it is impossible to evaluate the benefits of this alternative for the orcas. Restricting whale-watching for the seven months from October to April, for example, but allowing it for all summer months, would do very little to reduce impacts on the whales.	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis in Chapter 3, including that limitations would apply to the peak whale-watching season or year-round.
Nora Nickum-Seattle Aquarium	7g	It is also impossible to evaluate the benefits of an alternative that requires kayak tours to adhere to “some, or all” of the KELP best practices without noting what those are. Requested change: Inclusion of the following specific	Thank you for your comment. The FEIS includes example KELP best practices in the Alternative 1 column of Table 1.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		<p>requirements, which are in the pre-draft rules released by WDFW, in Alternatives 1 and 2:It is unlawful to launch if southern resident killer whales are within one-half nautical mile of the launch location. Vessels are prohibited from paddling, positioning, or waiting in the path of a southern resident killer whale. If a southern resident killer whale is moving towards the vessels, the vessels must immediately move out of the path of the whale. If vessels inadvertently encounter a southern resident killer whale, they must 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 killer whales have moved to at least 400 yards away from the vessels.</p>	
Nora Nickum-Seattle Aquarium	7h	<p>AIS should be included as a component of the rules in at least one of the alternatives, not left to the separate “mitigation measure” category. It is unclear why AIS is listed as a “mitigation measure” rather than as one of the rules. AIS requirements were proposed by multiple Advisory Committee members throughout the process, from the beginning, and in SEPA scoping comments. The legislation specifically allows WDFW to consider requiring AIS as part of the rules (RCW 77.66.620) and therefore it falls squarely within the scope of what can be mandated in the rule-making process. It is also contemplated in the pre-draft rules issued by WDFW. Requested change: Inclusion of the AIS requirement as a component of the rules in Alternatives 1 and 2.</p>	<p>Thank you for your comment. The FEIS includes a new AIS component that is analyzed for all four alternatives in Chapter 3. AIS was previously addressed in the DEIS as a mitigation measure.</p>
Nora Nickum-Seattle Aquarium	7i	<p>Reporting to the WRAS was listed as a potential mitigation measure, but it should be part of the reporting requirements in multiple alternatives. This is something that has been actively discussed by the Advisory Committee, included in an Advisory Committee proposal, and considered by WDFW in</p>	<p>Thank you for your comment. The FEIS reporting component includes the WhaleReport Alert System, or any successor transboundary notification system that is adopted by the international shipping community in the Salish Sea.</p>

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		the draft rulemaking. It should also be clear that this reporting should be done in real time.	
Nora Nickum-Seattle Aquarium	7j	The methodology used for calculating the percent reduction in viewing days is flawed. The results of this calculation (e.g., on page 23) are meaningless, since the methodology does not consider which months would carry restrictions, nor does it consider overlaps with either the typical southern resident presence in the inland waters or the peak whale-watching season. If the restricted months were the winter months, when the southern residents are less likely to be in the inland waters and the commercial whale-watching operators are unlikely to be offering tours, the actual number of viewing days would be unlikely to decrease at all, in practice. The alternatives must be more specific of the relative impacts of restrictions in different seasons, given seasonal trends in southern resident orca presence and commercial whale-watching activity.	Thank you for your comment. The EIS includes language to clarify the assumptions used in our analysis in Chapter 3, including that limitations would apply to the peak whale-watching season or year-round.
Nora Nickum-Seattle Aquarium	7k	On page 23:“Under Alternative 1, SRKW viewing days are reduced by at least 71% per week and hours of the day are reduced by at least 55% compared to when most CWW currently occurs, assuming restrictions are in place during the peak whale-watching season or year-round.”	Thank you for your comment. The EIS includes language to clarify the assumptions used in our analysis in Chapter 3, including that limitations would apply to the peak whale-watching season or year-round.
Nora Nickum-Seattle Aquarium	7l	On page 25:“Under Alternative 2, the number of operational days is reduced by 28% to 57% and the hours per day is reduced by 11% to 55% (assuming a nine-hour viewing time and that restrictions are in place during the peak whale-watching season). And similar edits in other places that discuss reduction in SRKW viewing days.	Thank you for your comment. The EIS includes language to clarify the assumptions used in our analysis in Chapter 3, including that limitations would apply to the peak whale-watching season or year-round.
Nora Nickum-Seattle Aquarium	7m	The DEIS should not be considering the recreation opportunities provided by commercial whale-watching operations. Justifying rules through a lens of recreation opportunities was not part of the legislative mandate.	Thank you for your comment. SEPA dictates that the EIS analyze possible environmental impacts on any of sixteen environmental elements if they are deemed significant. This includes recreational opportunities and use.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		Furthermore, there are many recreational opportunities to view the orcas from shore. There are also plentiful recreational opportunities to view the transient orcas and other marine mammals on commercial whale-watching tours.	
Nora Nickum-Seattle Aquarium	7n	The section on uncertainty on page 21 should note what the WSAS science panel concluded about treating every interaction as an opportunity for disturbance. While this concept was noted in a different section on page 22, it left out any reference to the precautionary principle. In the uncertainty section on page 21, include the specific language from the WSAS document: "...the committee recommends defining every interaction as an opportunity to disturb a whale and taking a precautionary management approach." (Q&A prepared for the WDFW Advisory Committee by the Washington State Academy of Sciences)	Thank you for your comment. The EIS includes additional information about the precautionary principle in the Context for EIS Alternatives section of Chapter 2.
Nora Nickum ¹¹⁵ , Rein Attemann ¹¹⁶ , Donna Sandstrom ¹¹⁷ , Lovel Pratt ¹¹⁸ , Chris Connolly ¹¹⁹ , Sophia Ressler ¹²⁰ , Kathleen Gobush ¹²¹ , Darlene Schanfald	8	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.

¹¹⁵ Seattle Aquarium¹¹⁶ Washington Environmental Council¹¹⁷ The Whale Trail¹¹⁸ Defenders of Wildlife¹¹⁹ Center for Biological Diversity¹²⁰ The Endangered Species Coalition¹²¹ Olympic Environmental Council

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8a	There should be an alternative that clearly states 0 motorized commercial whale-watching boats in the vicinity of southern resident orcas (at least 0.5 nautical miles) for the full year. That would be most precautionary and protective	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all of its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8b	We cannot support an alternative that would restrict all commercial whale-watching operations, for viewing any species of wildlife. Restricting all commercial whale-watching was not the charge or intent of this legislation, nor was it proposed by any of the Advisory Committee members. It muddies the “most restrictive” Alternative 1 by making it excessively restrictive with regard to other species while overly lenient with regard to viewing the critically endangered southern residents	Thank you for your comment. The EIS alternatives are designed to provide a comprehensive range of possible actions, including those listed in RCW 77.65.620, that will allow WDFW to develop rules that maximize ecological benefits to SRKWs and reduce negative economic impacts to the CWW industry.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8c	Furthermore, it effectively eliminates from consideration the limitations on viewing southern residents by tying those limitations to untenable restrictions on all commercial whale-watching. As stated on page 24, “As it is currently constructed, Alternative 1 is unlikely to meet the WDFW mandate. Alternative 1 places restrictions on CWW operating days/time that may not be economically viable for CWW license holders.” Alternative 1 should have been constructed in good faith in a way that could reasonably meet the WDFW mandate	Thank you for your comment. The final action chosen by WDFW may not be identical to any single alternative; the agency may choose a hybrid that combines more and less restrictive expressions of the alternatives to best meet its legislative mandate (RCW 77.65.620).
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel	8d	Requested change: Modification of Alternative 1 or inclusion of a new alternative with 1) no motorized commercial whale-watching boats in the vicinity of southern resident orcas for	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald		the full year, and 2) no restrictions on whale-watching of other species.	
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8e	Suggested edit to page 22: “This alternative would likely result in the most substantial reductions in daily and cumulative noise and disturbance impacts to SRKWs from CWW vessels, particularly from the components that limit vessels around SRKWs and the times for CWW operations and SRKW viewing, assuming that the limitations apply to the peak whale-watching season (i.e., May through September) or year-round.”	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis, including that limitations would apply to the peak whale-watching season or year-round.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8f	Alternative 2 could cover 4 months, 7 months, or year-round; without being more specific in terms of duration and the seasons that would be included, it is impossible to evaluate the benefits of this alternative for the orcas. Restricting whale-watching for the seven months from October to April, for example, but allowing it for all of the summer months, would do very little to reduce impacts on the whales.	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis, including that limitations would apply to the peak whale-watching season or year-round.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8g	It is also impossible to evaluate the benefits of an alternative that requires kayak tours to adhere to “some, or all” of the KERP best practices without noting what those are. Requested change: Inclusion of the following specific requirements, which are in the pre-draft rules released by WDFW, in Alternatives 1 and 2: -It is unlawful to launch if southern resident killer whales are within one-half nautical mile of the launch location. -Vessels are prohibited from paddling, positioning, or waiting in the path of a southern	Thank you for your comment. The FEIS includes example KERP best practices in the Alternative 1 column of Table 1.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		resident killer whale. If a southern resident killer whale is moving towards the vessels, the vessels must immediately move out of the path of the whale. -If vessels inadvertently encounter a southern resident killer whale, they must 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 killer whales have moved to at least 400 yards away from the vessels.	
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8h	It is unclear why AIS is listed as a “mitigation measure” rather than as one of the rules. AIS requirements were proposed by multiple Advisory Committee members throughout the process, from the beginning, and in SEPA scoping comments. The legislation specifically allows WDFW to consider requiring AIS as part of the rules (RCW 77.66.620) and therefore it falls squarely within the scope of what can be mandated in the rule-making process. It is also contemplated in the pre-draft rules issued by WDFW. Requested change: Inclusion of the AIS requirement as a component of the rules in Alternatives 1 and 2.	Thank you for your comment. The FEIS includes a new AIS component which is analyzed for all four alternatives in Chapter 3.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8i	Reporting to the WRAS was listed as a potential mitigation measure, but it should be part of the reporting requirements in multiple alternatives. This is something that has been actively discussed by the Advisory Committee, included in an Advisory Committee proposal, and considered by WDFW in the draft rulemaking. It should also be clear that this reporting should be done in real time.	Thank you for your comment. The FEIS reporting component includes the WhaleReport Alert System, or any successor transboundary notification system that is adopted by the international shipping community in the Salish Sea.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel	8j	The methodology used for calculating the percent reduction in viewing days is flawed. The results of this calculation (e.g., on page 23) are meaningless, since the methodology does not consider which months would carry restrictions, nor does	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis, including that limitations would apply to the peak whale-watching season or year-round.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald		it consider overlaps with either the typical southern resident presence in the inland waters or the peak whale-watching season. If the restricted months were the winter months, when the southern residents are less likely to be in the inland waters and the commercial whale-watching operators are unlikely to be offering tours, the actual number of viewing days would be unlikely to decrease at all, in practice. The alternatives must be more specific of the relative impacts of restrictions in different seasons, given seasonal trends in southern resident orca presence and commercial whale-watching activity.	
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8k	On page 23:“Under Alternative 1, SRKW viewing days are reduced by at least 71% per week and hours of the day are reduced by at least 55% compared to when most CWW currently occurs, assuming restrictions are in place during the peak whale-watching season or year-round.”	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis, including that limitations would apply to the peak whale-watching season or year-round.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8l	On page 25:“Under Alternative 2, the number of operational days is reduced by 28% to 57% and the hours per day is reduced by 11% to 55% (assuming a nine-hour viewing time and that restrictions are in place during the peak whale-watching season). And similar edits in other places that discuss reduction in SRKW viewing days.	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis, including that limitations would apply to the peak whale-watching season or year-round.
Nora Nickum, Rein Attemann, Donna	8m	The section on uncertainty on page 21 should note what the WSAS science panel concluded about treating every interaction as an opportunity for disturbance. While this	Thank you for your comment. The FEIS includes additional information about the precautionary principle in the Context for

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald		concept was noted in a different section on page 22, it left out any reference to the precautionary principle. In the uncertainty section on page 21, include the specific language from the WSAS document: "...the committee recommends defining every interaction as an opportunity to disturb a whale and taking a precautionary management approach." (Q&A prepared for the WDFW Advisory Committee by the Washington State Academy of Sciences)	EIS Alternatives section of Chapter 2. The FEIS also describes potential unintended consequences in Chapter 3.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8n	The DEIS should not be considering the recreation opportunities provided by commercial whale-watching operations. Justifying rules through a lens of recreation opportunities was not part of the legislative mandate. Furthermore, there are many recreational opportunities to view the orcas from shore. There are also plentiful recreational opportunities to view the transient orcas and other marine mammals on commercial whale-watching tours.	Thank you for your comment. SEPA dictates that the FEIS analyze possible environmental impacts on any of sixteen environmental elements if they are deemed significant. This includes recreational opportunities and use.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia Ressler, Kathleen Gobush, Darlene Schanfald	8o	In the section called "Life History, Habitat, and Conservation Status of SRKWs," the DEIS fails to address the current dynamics of this fragile population, which is extremely important when evaluating the environmental impacts of the various alternatives being considered.	Thank you for your comment. The FEIS includes additional information describing SRKW history, habitat, and population dynamics in the Introduction that was not in the DEIS.
Nora Nickum, Rein Attemann, Donna Sandstrom, Lovel Pratt, Chris Connolly, Sophia	8p	Requested edits: Add the population numbers from 2001 to 2020. Use information from pages 6-8 of WSAS's Summary of Key Research Findings about Underwater Noise and Vessel Disturbance report from August 2020 to add basic biological information to the DEIS. Incorporate more of the scientific references and information on vessel effects from WSAS's	Thank you for your comment. The FEIS includes additional information describing SRKW history, habitat, and population dynamics in the Introduction that was not in the DEIS.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Ressler, Kathleen Gobush, Darlene Schanfald		Summary of Key Research Findings about Underwater Noise and Vessel Disturbance report from August 2020 (pages 10-14)	
Jeff Friedman-PWWA	9	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Jeff Friedman-PWWA	9a	After participating in the commercial whale watching licensing process in good faith, we were shocked to see that the recently-released EIS not only proposed limitations on the number of hours, days, and months that license holders can view Southern Resident killer whales, but also proposes limitations on the number of hours, days, and months that license holders can operate. These restrictions on the viewing of the region’s thriving populations of other whales, such as Bigg’s killer whales and humpback whales, would be crippling to the many small business owners that comprise the Pacific Whale Watch Association.	Thank you for your comment. The FEIS alternatives are designed to provide a comprehensive range of possible actions, including those listed in RCW 77.65.620, that will allow WDFW to develop rules that maximize ecological benefits to SRKWs and reduce negative economic impacts to the CWW industry.
Jeff Friedman-PWWA	9b	Alternative 3 would restrict the commercial viewing of all whales to 6 days per week, from 1-2 hours after sunrise to 1-2 hours before sunset, during a 1 to 3-month window with additional restrictions on viewing Southern Resident killer whales for a 1 to 3-month window. The EIS states that this will reduce commercial whale watching opportunities by 14 percent. We feel that this number is an underestimation, as during the peak season, several companies offer afternoon tours that would terminate later than 2 hours prior to sunset. If viewing of all whales must end 2 hours before sunset, this would prohibit many companies from operating their later tours. The report states that these later tours represent “a small portion of current commercial whale watching activity”, but we dispute this statement, and in some instances, these afternoon/early evening tours	The effects of timing restrictions on CWW activity depend on the ability of the industry to adapt (e.g., by shifting some level of activity to allowable times and days). The extent to which the industry can adapt depends both on the length and specific timing (i.e., which days, hours, seasons) of the restrictions, as well as the flexibility of the operations to adjust. With respect to restrictions on the days CWW is allowed, the DEIS presents the percent change in the days of the week which would allow CWW activity. For seasonal- and hours-based timing restrictions, the DEIS generally describes the restrictions qualitatively (i.e., they are not included in the reported percent change in CWW days of the week). The percent change in CWW days is not intended to represent the effect of the restrictions on percent change in overall CWW activity level. Depending on the specific timing restriction, some or all of the CWW activity may be shifted to

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		comprise up to 50% of an operator's peak season tour offerings.	allowable timeframes. The percent change in CWW days does not reflect this potential for adaptation. Of note, DFW has not included timing restrictions on overall CWW activity within its proposed rule; the timing restrictions currently proposed are limited to viewing of SRKW.
Sophia Ressler-The Center for Biological Diversity	10	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Sophia Ressler-The Center for Biological Diversity	10a	The entire DEIS is based on a flawed and unproven assumption that there will be negative economic affects to the CWW industry. Throughout the DEIS it is assumed that the less opportunity CWW vessels have to view the SRKWs the less revenue they will make. However, this is not supported by the economic analysis. In fact, the economic analysis done on this program shows that when commercial whale watching vessels in Canada agreed to stop watching the SRKWs their revenue increased. The analysis further shows that after stricter federal regulations were implemented in 2011 the industry's revenue continued to increase. Basing the DEIS on the false assumption of economic loss misconstrues the economic analysis. The DEIS must be changed to reflect that there is no certainty that stopping watching the SRKWs would have any impact on CWW revenue and may, in fact, increase whale watching revenue.	The FEIS process does not require an economic cost-benefit analysis, and the discussion of impacts to recreational opportunities was not intended to serve as a cost-benefit analysis. Consideration of economic viability of the industry is part of the broader rulemaking process, which includes the Economic Viability Analysis and the Small Business Economic Impact Statement. The Economic Viability Analysis concluded that rule elements that only limit viewing of SRKW were unlikely to threaten the economic viability of the industry. This finding does not mean that restrictions on SRKW viewing would not have any economic costs, however. Consistent with the findings of the Economic Viability Analysis, the FEIS concludes that rule elements that limit only SRKW viewing are unlikely to result in significant reductions in CWW opportunities. Also consistent with the Economic Viability Analysis, the FEIS concludes that rule elements that put limits on CWW more broadly could result in reductions in CWW opportunities.
Sophia Ressler-The Center for Biological Diversity	10b	The DEIS consistently refers to the "sentinel role" that CWW vessels may play by protecting the SRKWs from recreational boaters while failing to consider the potential that CWW vessels might actually be the ones attracting recreational boaters. The Washington State Academy of Science ("WSAS") panel concluded that there are no studies supporting the	Thank you for your comment. The WSAS Report states there is "little published empirical evidence [that exists] for potential sentinel or magnet effects of whale watching vessels." The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		<p>sentinel role that the CWW industry anecdotally totes in all of their messaging. However, the DEIS considers this role in several places in the document. The DEIS fails to consider the alternative, that the presence of CWW vessels may actually attract more recreational boaters by alerting them to the presence of whales. Because there is no science to support the sentinel role it should not be a consideration in the DEIS, but if it remains in the final EIS, the converse must also be considered.</p>	
Sophia Ressler- The Center for Biological Diversity	10c	<p>On page 19 of the DEIS a year-round moratorium on CWW vessels viewing SRKWs is summarily dismissed as “not feasible” without any explanation as to why this is the case. The DEIS must further expound on the feasibility of such an option and how that determination was reached.</p>	<p>Thank you for your comment. The FEIS includes additional clarification about the feasibility of a CWW moratorium in Chapter 2. Although WDFW is not considering abolishing CWW or placing a moratorium on the industry, Alternative 1 includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.</p>
Sophia Ressler- The Center for Biological Diversity	10d	<p>The DEIS misrepresents the purpose of this rulemaking process. The legislation mandating this program requires the rules to “effectively reduce the daily and cumulative impacts on southern resident orcas and consider the economic viability of license holders.” On page vi of the executive summary of the DEIS this purpose is misconstrued, stating “[t]he purpose of establishing regulations for licensing commercial whale watching vessels is to ensure sustainable commercial whale watching policies that reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident killer whales.” This wording appears to put more emphasis on whale watching rather than protection of the SRKWs and does not properly reflect the legislative directive. This must be changed to reflect the wording of the legislation and establish the proper considerations the program is meant to address.</p>	<p>Thank you for your comment. The FEIS states the purpose of the CWWLP is "to reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident Killer Whales (SRKWs or Southern Residents) and consider the economic viability of commercial whale watching license holders," which reflects WDFW's legislative mandate in RCW 77.65.620.</p>

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Sophia Ressler- The Center for Biological Diversity	10e	The alternatives considered in the DEIS are not specific or tangible enough to support proper decision making or informed public comment. The alternatives contained in the DEIS include overly broad ranges for both number of vessels and months where CWW viewing of the SRKWs are allowed. The DEIS fails to specify which months would carry the restrictions and whether the restrictions would overlap with peak whale watching months. The DEIS also fails to specify when requirements for kayaks and other non-motorized CWW vessels would apply. The alternatives need to be redrafted to specifically consider number of boats around the whales and the exact months that would be covered by the rules for both motorized and non-motorized CWW vessels.	Thank you for your comment. The FEIS alternatives are designed to provide a comprehensive range of possible actions, including those listed in RCW 77.65.620, that will allow WDFW to develop rules that maximize ecological benefits to SRKWs and reduce negative economic impacts to the CWW industry.
Sophia Ressler- The Center for Biological Diversity	10f	The DEIS includes an inadequate “most restrictive” alternative. Alternative 1 currently includes a range of 0-2 boats. The DEIS should include an alternative that clearly states zero CWW motorized whale watching boats watching of the SRKWs to properly consider the precautionary principle as recommended by the WSAS panel.	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.
Sophia Ressler- The Center for Biological Diversity	10g	Alternative 3 also only reduces viewing time by one day per week and again fails to specify which 1-3 months the restrictions would be in place. If the restrictions in these alternatives only occurred during winter months when whale watching operators are not typically conducting tours alternative 3 would have no impact on the SRKWs. The DEIS should be changed to specify which months restrictions would apply and number of vessels, viewing time and hours should be changed to meaningfully distinguish alternative 3 from the status quo.	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis, including that limitations would apply to the peak whale-watching season or year-round.
Sophia Ressler- The Center for	10h	The methodology used in the DEIS for calculating the percent reduction in viewing days is fundamentally flawed. Because	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis, including that

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Biological Diversity		the DIES fails to specify which months would have restrictions, does not consider typical SRKW presence in inland waters or seasonality of whale watching tours the calculations have no way of accurately reflecting the percent decrease in viewing days. The DEIS must be edited to provide this specificity and these numbers must be recalculated to properly reflect these changes.	limitations would apply to the peak whale-watching season or year-round.
Sophia Ressler- The Center for Biological Diversity	10i	The DEIS fails to consider automatic identification systems (“AIS”) as a component of the rules in any of the alternatives. Instead, the DEIS considers AIS as a completely separate category of “mitigation measures.” Both the legislature, the CWW licensing advisory committee convened by the Department and SEPA scoping comments considered the potential of AIS as part of the rules. The alternatives must be changed to reflect this and AIS should be required as a component of alternatives 1 and 2.	Thank you for your comment. The FEIS includes a new AIS component that is analyzed for all four alternatives in Chapter 3.
Sophia Ressler- The Center for Biological Diversity	10j	Similarly, reporting requirements to the Whale Report Alert System (“WRAS”) should be included in each of the alternatives. These reporting requirements are currently in the DEIS as potential mitigation measures, but are not included as a component of any of the alternatives. These reporting requirements were discussed by the advisory committee and considered in the Department’s draft rule and the DEIS should reflect this by including a requirement to report to the WRAS system and share that information with the Department in each of the alternatives.	Thank you for your comment. The FEIS reporting requirement includes the WhaleReport Alert System, or any successor transboundary notification system that is adopted by the international shipping community in the Salish Sea.
Sophia Ressler- The Center for Biological Diversity	10k	The DEIS must clearly reflect the recommendation of the WSAS panel to use the precautionary principle as a guide. The WSAS panel justified this decision in their findings with the understanding that every interaction with the SRKWs should be treated as a potential disturbance. Nowhere does the DEIS reflect this recommendation and edits must be	Thank you for your comment. The FEIS includes additional information about the precautionary principle in the Context for EIS Alternatives section of Chapter 2.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		made to the uncertainty section (pg. 21) of the DEIS to reflect the recommendation to use the precautionary approach.	
Sara Hysong-Shimazu	11	<i>See full letter in Appendix C-3.</i>	Thank you for your letter.
Stephanie Taylor-Northwest Animal Rights Network	12	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Stephanie Taylor-Northwest Animal Rights Network	12a	The Executive Summary of the draft states the purpose of establishing regulations for licensing commercial whale watching vessels is to “ensure sustainable commercial whale watching practices that reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident Killer Whales (SRKWs or Southern Residents).” This is an impossible claim and needs an urgent correction. a) The purpose of establishing regulations for licensing commercial whale watching vessels is “to ensure that commercial whale watching practices do not contribute to the already vast disturbances on the endangered SRKWs.” Please correct the Executive summary to list the protection of whales as priority.	Thank you for your comment. The FEIS states the purpose of the CWWLP is "to reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident Killer Whales (SRKWs or Southern Residents) and consider the economic viability of commercial whale watching license holders," which reflects WDFW's legislative mandate in RCW 77.65.620.
Stephanie Taylor-Northwest Animal Rights Network	12b	The four Alternatives presented do not include an Alternative that calls for limiting all commercial whaling watching and other disturbances to protect the endangered Southern Resident Killer Whale population. The most limiting Alternative provided- Alternative 1- still includes the allowance and permittance of practices that actively harm the endangered SRKW population recovery. This draft should include an Alternative 0 which limits all commercial whaling watching of the endangered SRKW pods. Land based viewing of SRKWs is the best alternative until the endangered population is at a stable recovery level.	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all its component ranges, which would eliminate CWW impacts on SRKWs and all marine life.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Rein Attemann-Washington Environmental Council (on behalf of approximately 700 members of the public)	13	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Rein Attemann-Washington Environmental Council (on behalf of approximately 700 members of the public)	13a	There should be an alternative that clearly states 0 motorized commercial whale-watching boats in the vicinity of southern resident orcas (at least 0.5 nautical miles) for the full year.	Thank you for your comment. Alternative 1 captures the most restrictive actions WDFW could choose because it includes zero in all of its component ranges which would eliminate CWW impacts on SRKWs and all marine life.
Rein Attemann-Washington Environmental Council (on behalf of approximately 700 members of the public)	13b	The methodology used for calculating the percent reduction in viewing days is flawed. The results of this calculation are meaningless, since the methodology does not consider which months would carry restrictions, nor does it consider overlaps with either the typical southern resident presence in the inland waters or the peak whale-watching season. If the restricted months were the winter months, when the southern residents are less likely to be in the inland waters and the commercial whale-watching operators are unlikely to be offering tours, the actual number of viewing days would be unlikely to decrease at all, in practice. The alternatives must be more specific of the relative impacts of restrictions in different seasons, given seasonal trends in southern resident orca presence and commercial whale-watching activity.	Thank you for your comment. The FEIS includes language to clarify the assumptions used in our analysis, including that limitations would apply to the peak whale-watching season or year-round.
Rein Attemann-Washington Environmental	13c	The DEIS lacks basic biological information about the southern resident orca population and full discussion of the best available science around vessel noise and disturbance	Thank you for your comment. The FEIS includes additional information describing SRKW history, habitat, and population dynamics in the Introduction that was not in the DEIS.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Council (on behalf of approximately 700 members of the public)		on orcas. Factors affecting whales include the number of vessels, speed, distance and type of vessels.	
Rein Attemann-Washington Environmental Council (on behalf of approximately 700 members of the public)	13d	Reporting requirements should include reporting to the Whale Report Alert System (WRAS) component in each alternative and AIS should be included in Alternatives 1 and 2 and 3, not left to the "mitigation measure" category.	Thank you for your comment. The FEIS reporting component includes the WhaleReport Alert System, or any successor transboundary notification system that is adopted by the international shipping community in the Salish Sea. The FEIS also includes a new AIS component that is analyzed for all four alternatives in Chapter 3.
Whitney Neugebauer-Whale Scout	14	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Whitney Neugebauer-Whale Scout	14a	The commercial licensing process gives an opportunity to ensure whale watching in the state is being done in a controlled and is well managed, however it does not address the immense pressure being put on the whales by private boaters. Changes to commercial operations can have significant implications for private boater behavior which could be detrimental, including high speed incidents and strikes. The sentinel role the professional, commercial operators play on the water needs to be better understood prior to making significant changes.	Thank you for your comment. The FEIS acknowledges the uncertainty associated with impacts from private recreational vessels in the Analysis Limitations section of Chapter 3.
Brian C Goodremont- San Juan Island Outfitters	15	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Brian C Goodremont- San	15a	With three vessels, San Juan Safaris and San Juan Island Outfitters operate 3-5 tours daily during peak summer months. Our tours range 3-4 hours each. Two of our vessels	The effects of timing restrictions on CWW activity depend on the ability of the industry to adapt (e.g., by shifting some level of activity to allowable times and days). The extent to which the

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
Juan Island Outfitters		run two or more trips per day June through early September and we require time between tours to offload and load customers and clean. In light of COVID-19, the time between tours has had to increase to allow for additional sanitation and safety measures. With the limitation on time and viewing days, our whale watching opportunities would be reduced by more than 29 – 57% as stated by the EIS and could be decreased by as much as 75% if the tightest restrictions are enforced under Alternative 2.	industry can adapt depends both on the length and specific timing (i.e., which days, hours, seasons) of the restrictions, as well as the flexibility of the operations to adjust. With respect to restrictions on the days CWW is allowed, the FEIS presents the percent change in the days of the week which would allow CWW activity. For seasonal- and hours-based timing restrictions, the FEIS generally describes the restrictions qualitatively (i.e., they are not included in the reported percent change in CWW days of the week). The percent change in CWW days is not intended to represent the effect of the restrictions on percent change in overall CWW activity level. Depending on the specific timing restriction, some or all of the CWW activity may be shifted to allowable timeframes. The percent change in CWW days does not reflect this potential for adaptation. Of note, DFW has not included timing restrictions on overall CWW activity within its proposed rule; the timing restrictions currently proposed are limited to viewing of SRKW.
Brian C Goodremont- San Juan Island Outfitters	15b	San Juan Safaris offers a daily “sunset” whale watching tour from Memorial Day through late August that is very popular. This tour returns later than two hours prior to sunset and this restriction would not allow us to run this tour. Additionally, later in the summer and fall as the sun sets earlier, this time restriction would restrict even our early/mid-afternoon tours as our tours can be up to 4 hours long. We cannot shift tours to an earlier departure time due to the operating schedule for the WA State Ferries, which most of our guests take for a day trip, and we often have to push tours back due to late ferries. Alternative 3 would inhibit our ability to run tours during early and late season by restricting what time we are able to offer tours. Alternative 3 could cause at minimum a 25% decrease in our peak season tour offerings (well above the proposed 14% by the EIS) and	The effects of timing restrictions on CWW activity depend on the ability of the industry to adapt (e.g., by shifting some level of activity to allowable times and days). The extent to which the industry can adapt depends both on the length and specific timing (i.e., which days, hours, seasons) of the restrictions, as well as the flexibility of the operations to adjust. With respect to restrictions on the days CWW is allowed, the FEIS presents the percent change in the days of the week which would allow CWW activity. For seasonal- and hours-based timing restrictions, the FEIS generally describes the restrictions qualitatively (i.e., they are not included in the reported percent change in CWW days of the week). The percent change in CWW days is not intended to represent the effect of the restrictions on percent change in overall CWW activity level. Depending on the specific timing restriction, some or all of the CWW activity may be shifted to allowable timeframes. The percent change in CWW days does

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		could additionally cause us to not run tours at all during fall and early spring (2-4 months of our operating season).	not reflect this potential for adaptation. Of note, DFW has not included timing restrictions on overall CWW activity within its proposed rule; the timing restrictions currently proposed are limited to viewing of SRKW.
Alanna Frayne- The Whale Museum	16	<i>See full letter in Appendix C-3.</i>	Thank you for your letter.
Amy Nesler- San Juan Islands Visitors Bureau	17	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Please see response in Appendix C-1.
Alan Niles – Maya’s Legacy Whale Watching	18	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Specific responses to comments in your letter can be found below. The reference number is flagged in the full letter in Appendix C-3.
Alan Niles	18a	Not a point to be belittled, is the role commercial operators play in alerting other vessels to the presence of whales. We not only stop vessels heading directly into whales at high speed many times, but we slow down vessels nearby which reduces the overall soundscape.	Thank you for your comment. The FEIS describes the possible influence of CWW vessels on private recreational boaters as both sentinels and magnets in the Mitigation Measures section of Chapter 3.
Alan Niles	18b	As for your specific plan it is in no way in alignment with science or whale behavior. To make rules around days of the week, times of the day and specific locations goes to show how little this is about SRKW protection and instead about public optics. Taking whale watchers out of view does not fix the problem for the whales. Even if you implement these rules it will only change a very few hours of the whales lives a year. (not for the better as I have stated). However when the whales do decide to come to San Juan island you are going to allow recreational boats and fishing boats to transit the area even close to shore. Is this not obvious to everyone what a problem this is? If you take a way the experts/sentinels, you are left with a vacuum of knowledge.	Thank you for your comment. As directed by RCW 77.65.620, the CWWLP will only apply to commercial whale watching license holders.

Name & Affiliation (if provided)	Reference Number	Excerpt from Letter	Response
		Who will report times to celebrate new births, time to mourn deaths, inspire the public to take action to save the salmon, with beautiful photographs of majestic whales who are tied to their survival.	
Mark Vigna	19	<i>See full letter in Appendix C-3.</i>	Thank you for your letter. Please see response in Appendix C-1.

Appendix C-3: DEIS Public Comments (Full Letters)

The letters below were submitted during the DEIS 30-day public comment period. The letters are listed in the order in which they were received. Specific comments that were responded to in Appendix C-2 are highlighted/annotated for ease of reference. The commenter themselves did not submit the letters with any highlighting or annotations.

Comments re rules for commercial whale watching of SRKWs:

The precautionary principle must be followed with any critically endangered species, including the southern resident orcas. An immediate moratorium on whale watching (with a minimum 650-yard setback for all vessels), as recommended by The WS Orca Task Force, is the only immediate relief available for this struggling population while other measures are being pursued.

Giving special consideration to the multi-million-dollar commercial whale watching industry is unwarranted and unnecessary. Both arguments used by Pacific Whale Watching Association have been scientifically proven as false. These arguments being:

1. The industry will suffer huge financial losses if not allowed to view the SRKWS. In fact, the latest economic report produced for DWF states:

Available data suggest that the Primary Motorized Whale Watch and Kayak Tour sectors are not financially dependent upon SRKW viewing, and that the industry has remained profitable despite previous reductions in SRKW viewing opportunities over the past ten years.

Despite reduced access to SRKW, the U.S.-based CWW industry in Puget Sound has expanded since 2011. Revenues of the San Juan Island-based PWWA members that were active in 2019 increased in real terms from \$3.8 million in 2011 to \$10.2 million in 2018, marking roughly 170 percent growth (Exhibit 9). The fleet also expanded in terms of vessel numbers, growing from 22 vessels in 2011 to 49 vessels in 2016 (120 percent) (Exhibit 7).

Despite near complete restriction of SRKW viewing on its tours, the Canadian-based PWWA members experienced a 7.6 percent increase in ridership from 2018 to 2019."

2. The PR taking point used extensively by PWWA that whale watching vessels serve as "sentinels" for other boaters is false. Soundwatch Boater Education data shows the complete opposite—both commercial and recreational boats commit dozens of violations around the SRKWs, double the amount when enforcement isn't present. The conclusions of the science committee panel states:

"The sentinel role is not supported by scientific evidence. As it is known that vessel presence has behavioral and physiological effects on whales, and it is not known that there is a sentinel effect on recreational boater behavior, the precautionary principle would lead us to assume that the sentinel effect is not present until otherwise demonstrated."

In conclusion, since there is zero evidence that the CWW industry will be financially impacted by a moratorium on whale watching the SRKWS, and they clearly do NOT provide a "sentinel" role, allowing them to continue to profit from a critically endangered species is unwarranted and will result in diminished access for the SRKWs to available prey salmon in the Salish Sea.

Both proposals on the table include whale watching of the southern residents, 7 days a week, 12 hours per day. This is a death knell for the orcas. PWWA successfully lobbied to eliminate the

recommendations of the Orca Task Force (moratorium and 650-yard setback). PWWA has undermined all efforts to provide greater distance protections for these whales. I am incredulous that this industry, whose profits continue to skyrocket (with or without viewing the southern residents), continues to be catered to.

The southern residents are abandoning their ancestral habitat and moving into Canadian waters because they cannot echolocate when surrounded by dozens of vessels. Their core critical habitat off of San Juan island has been ruined by excess vessel traffic. These whales can only hunt and communicate successfully in quiet waters.

Please do the right thing and enact an immediate moratorium on whale watching the southern resident orcas.

Thank you,

Sorrel North
Lopez Island, WA
36-298-2698



Island Adventures Whale Watching
 1801 Commercial Avenue
 Anacortes, WA 98221
 (360)-293-2428

October 14, 2020

Julie Watson – Killer Whale Policy Lead, WDFW
 Nathan Pamplin – Policy Director, WDFW

**RE: Public Comment on the Draft Programmatic Environmental Impact Statement:
 Commercial Whale Watching Licensing Program**

Island Adventures has been proudly offering responsible whale watch tours in Washington since 1996. Over the years we've faced many challenges, but dealing with COVID-19 has been the most difficult challenge in our history, resulting in a loss of approximately 80% of our typical annual revenue and the layoffs of many of our loyal staff. Now, as we wade through the financial devastation of 2020, we are faced with even more uncertainty as WDFW looks to impose crippling restrictions on our industry.

When it was passed into law last year, Senate Bill 5577 stated, "*The department must adopt rules for holders of a commercial whale watching license [...] for the viewing of southern resident orca whales for the inland waters of Washington by January 1, 2021. 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.*" After reviewing the Environmental Impact Statement (EIS) prepared for WDFW, we feel that the options presented fail to meet these criteria and will be harmful to both whales and businesses.

Island Adventures was involved as a member of the Commercial Whale Watching License Panel. As a panelist, we were surprised at the options that emerged in both the draft rules and in the EIS, many of which were never discussed in our panel meetings. We are particularly concerned that the EIS calls for not only limitations on the number of hours, days, and months that license holders can view Southern Resident killer whales (SRKW), but also limitations on the number of hours, days, and months that license holders can operate tours at all. These restrictions on the viewing of the region's thriving populations of other whales, such as Bigg's killer whales and humpback whales, would have a significant negative impact on our operations.

Alternative 1 would restrict the commercial viewing of all whales to 0 to 2 days per week, 0 to 4 hours per day for an 8 to 11-month period with additional restrictions for Southern Resident killer whales for an 8 to 12-month period. The EIS states that this will reduce commercial whale watching opportunities by 71 to 100 percent. Island Adventures traditionally operates for at least 8 to 9 months each year.

Alternative 2 would restrict the commercial viewing of all whales to 3 to 5 days per week, 4 to 8 hours per day for a 4 to 7-month period with additional restrictions on SRKW for a 4 to 7-month period. The EIS states that this will reduce commercial whale watching opportunities by 29 to 57 percent. **Island Adventures tours vary in length between 4 to 5 hours. During peak season, we offer two tours a day and require adequate time between tours to safely unload passengers, clean the vessel, and load passengers for the next tour. In addition to only being allowed to operate a few days each week, we would also be unable to offer two tours each day, therefore losing even more whale watching opportunities than the 29 to 57 percent proposed by the EIS.**

2a

Alternative 3 would restrict the commercial viewing of all whales to 6 days per week, from 1 to 2 hours after sunrise to 1 to 2 hours before sunset, during a 1 to 3-month window with additional restrictions on viewing Southern Resident killer whales for a 1 to 3-month window. **The EIS states that this will reduce commercial whale watching opportunities by 14 percent. During peak season, we traditionally offer a morning and afternoon tour each day, with the afternoon tours ending later than 2 hours prior to sunset depending on the time of year. If viewing of all whales must end 2 hours before sunset, this would prohibit us from operating our afternoon tour. The EIS report states that these later tours represent "a small portion of current commercial whale watching activity", but for Island Adventures, these afternoon/early evening tours comprise 50% of our peak season tour offerings, therefore we would be affected much more than the report's predicted 14 percent.**

2b

In their final report, Industrial Economics, Inc. declared that *"reduced ridership of 14 to 27 percent may raise viability concerns related to these businesses as compared to a reduction of 20 to 50 percent in ridership described in the draft analysis"* and *"a reduction in ridership of 14 to 27 percent may constitute an economic viability threat."* We feel that the economic viability study and EIS underestimate the economic impact of the proposed whale watching restrictions, but even so, using the report's final threshold of 14 to 27 percent reduction in ridership as constituting an economic viability threat, Alternative 1, Alternative 2, and Alternative 3 should all be disqualified. The only option that does not cause undue economic hardship on commercial whale watch license holders is Alternative 4 - no action.

The proposed date and time restrictions will not only hurt our business economically, but they leave all whales - Southern Resident killer whales, Bigg's killer whales, humpback whales, minke whales, and gray whales - vulnerable to vessels unaware of their presence or how to safely operate around them. Both Soundwatch and WDFW enforcement officers attest that private vessels behave more safely around whales when commercial whale watch operators are there to set a positive example. Our trained naturalists are skilled at identifying whales, educating guests, and inspiring meaningful conservation action. We contribute photographs and observations to several local research groups annually and participate in on-the-water research with Cascadia Research Collective who collect data from our vessels throughout the year. We are often the first to alert cargo ships, ferries, and military vessels of whales in the area and have, on multiple occasions, helped report and monitor entangled and injured whales.

While Island Adventures believes that more time should be allotted to adequately assess the effectiveness of the increased distance and speed restrictions that went into law in May 2019 before considering the implementation of additional regulations, out of an abundance of caution, we would support the suggestions put forth by the Pacific Whale Watch Association which include:

- Limit of five commercial license holders at the 300-yard statutory distance from a group Southern Resident killer whales at any one time
- 45-minute limit with Southern Residents per license holder per tour
- License holders must fly the Whale Warning Flag while viewing Southern Residents
- West side of San Juan Island zone closure when Southern Residents are present
- Reporting to WDFW of Southern Resident presence and commercial whale watch operator sentinel actions

We hope that you will consider the vital role that commercial whale watching operators like Island Adventures play on the water protecting whales and the certain hardship the proposed actions in the EIS would cause for our business, our staff, their families, and our community.

Captain Shane Aggergaard

President - Island Adventures Whale Watching
Operating Tours in Washington Since 1996

Salish Sea Organizations Support
RESPONSIBLE WHALE-WATCHING



Whale-Watching Position Statement



The undersigned groups encourage shore based whale watching and support responsible whale watching when out on watercraft, and we strive to provide public education based on scientific data to help people make responsible choices whenever encountering whales.

Recreational vessel sales in Washington increased 33% in June and July 2020 compared to 2019. With this recent surge in privately-owned vessels, there are now nearly 250,000 private vessels registered in Washington State, and there is a corresponding need for education about how to [Share the Water](#) with wildlife. Research and testimony from NOAA and other agency partners highlight the negative impact which [private boaters](#) can have on marine mammals and other wildlife. At the same time, we recognize the joy and excitement inherent to encountering whales in a private vessel (including kayaks, sailboats, etc.) and want to acknowledge all of the watercraft operators who do so in a respectful and non-harmful way by knowing and following regulations and common sense. We believe that educated boaters can be a positive influence and role models for other boaters in this regard.

Commercial whale watching has recently come under scrutiny by some members of the public and during the Orca Task Force process, even though there is overwhelming agreement in the scientific community that lack of salmon is the biggest contributing factor to the decline of the Southern Resident orcas. While some critics may focus on the potential for this industry to profit from species whom they are believed to be harming, it's important to also acknowledge the active role they play in educating, protecting, and improving the environment in other ways beneficial to the whales.

Commercial whale watch vessels provide a platform to introduce members of the public to the Salish Sea, educate them about endangered Southern Resident orcas and other species, and inspire them to help with recovery actions. Pacific Whale Watch Association, (PWWA) captains and naturalists are trained professionals who spend thousands of hours learning, educating and advocating on behalf of the Salish Sea. Professional whale watch companies benefit the whales and the Salish Sea ecosystem by:

- Providing public education and inspiring conservation.
- Regularly returning portions of their revenue to habitat recovery efforts and regional research and advocacy causes.
- Contributing to science by sharing sightings data and identification photos, including new calves, with multiple organizations (research, governmental, NGO's).
- Reporting stranded, entangled, injured or ill animals.
- Notifying the U.S. and Canadian Navy when there are whales present near planned military exercises.
- Retrieving balloons and other debris from the water whenever possible.



Commercial whale watch vessels fill a sentinel role by educating recreational boaters and modeling proper behavior around whales to watercraft operators. Observers from shore on San Juan Island have repeatedly observed instances of disturbance, harassment and near-misses by recreational boats and kayaks around Southern Resident orcas when whale watch boats are not present. These incidents rarely show up in the data because there are no education, enforcement, or research boats present to document them. The whales are often spread over wide areas, and monitoring and enforcement vessels can only cover so much ground geographically. Professional captains and naturalists are regularly proactive to intervene on behalf of the whales by:



- Working cooperatively with monitoring groups like Soundwatch, and enforcement vessels from multiple jurisdictions.
- Contacting boaters by radio.
- Waving a whale warning flag.
- Sounding their horns or even providing a physical barrier between oncoming boats and whales.

Commercial whale watch operators helped develop the [Be Whale Wise guidelines](#) and they have been self-regulating and following collaborative and rigorous guidelines since long before the Orca Task Force's work began. Their industry guidelines go above and beyond current state and federal regulations and have changed dramatically over the last two decades. Best available science indicates that the dominant source of underwater noise is ships and fast-moving close-range boats. PWWA members:



- Know and follow state and federal regulations, including the 2019 Washington State vessel regulations incorporating increased viewing distances and a speed limit of 7 knots or less within ½ nautical mile of Southern Resident orcas.
- Have invested in quiet vessels to minimize their impact on the species whom they are there to enjoy and protect.
- Have implemented voluntary time and boat limits in recent years, and often opt not to view Southern Residents when other species of cetaceans are available. *There has not yet been sufficient science conducted to determine positive impacts of these voluntary changes and the new vessel regulations.*



Photos, previous page left to right: 1. Captain/naturalist Barbara flies the Whale Warning Flag to alert boaters to the presence of whales in the area. Photo courtesy of All Aboard Sailing 2. Naturalist educates passengers about the endangered Southern Resident orcas, photo courtesy of San Juan Safaris 3. Captain/naturalist Sara removing a balloon from the water, photo by Lodie Budwill 4. Naturalist Erin taking photos to add to sightings data. Photo courtesy Erin Gless 5. Captain/naturalist JB providing public education and inspiring the next generation. Photo courtesy John Boyd This page, top to bottom: 1. Captain/naturalist April waves a Whale Warning Flag. Photo by Steve Smith 2. Recreational vessel speeding toward a Southern Resident, photo by Monika Wieland Shields 3. Naturalists go through extensive training so they can educate and inspire their passengers. Photo courtesy of San Juan Safaris.

Whale-Watching Position Statement



PWWA is viewed as an example for responsible, sustainable whale watching in other regions of the world, and they play an important educational and sentinel role. In the same way that the movie Blackfish changed the public perception of marine mammals in captivity, so do whale watching vessels educate and inspire the public about the plight of the critically endangered Southern Resident orcas. Professional whale watch captains and naturalists care about the marine mammals they are viewing, and have taken proactive steps to adjust their viewing guidelines as new science becomes available.

There is a whale watch licensing program currently underway that is the result of an Orca Task Force recommendation, and PWWA supported and fully participated in these efforts. We are in favor of working in partnership with PWWA to create a licensing program that is fair, based on science, and ultimately beneficial to the whales. The draft Environmental Impact Statement was released on September 23rd and is now open for public comment. We urge you to consider the educational and sentinel role that professional whale watch operators play when formulating your comments.

[PLEASE LEARN AND COMMENT HERE](#)

Our hope is that when this process is completed, multiple education and conservation organizations will turn their focus toward salmon restoration and work collaboratively toward meaningful recovery efforts for Southern Resident orcas that include both short term and long term increases in salmon abundance throughout their range.





Connecting Whales and People
in the Pacific Northwest

October 23rd, 2020

Julie Watson
Killer Whale Policy Lead, WDFW
P.O. Box 43200
Olympia, WA 98504-3200

Lisa Wood
SEPA/NEPA Coordinator, WDFW Habitat Program, Protection Division
P.O. Box 43200
Olympia, WA 98504

Attn: Draft Programmatic Environmental Impact Statement – Commercial Whale Watching Licensing Program

Dear Ms. Watson and Ms. Wood,

Thank you for providing an opportunity to comment on the DEIS for the Commercial Whale Watching Licensing Program.

Orca Network is a non-profit organization dedicated to raising awareness of the whales of the Pacific Northwest, and the importance of providing them safe and healthy habitats. We provide learning opportunities and advocacy through our educational programs, the Langley Whale Center, and our Whale Sightings Network which currently consists of over 15,000 subscribed e-members and roughly 160,000 Facebook users. On behalf of our staff and Board of Directors, we would like to take this opportunity to voice our concerns regarding the proposed alternatives.

We acknowledge that boat noise is a source of disturbance for Southern Resident orcas and that decreasing vessel impacts around the whales should be addressed. Noise interrupts vital communications amongst pod members and potentially masks their echolocation, decreasing successful foraging attempts. We have been in favor of the limited-entry permit system if the regulatory outcome is based on best available science and not opinion or emotion, and this permitting system is shaped and adaptively managed to mitigate the impacts to Southern Resident orcas while affirming the value of whale watching. We strongly believe that there are ways to mitigate noise and pressure from small vessels and still allow for the educational benefits of whale watching.

We do not believe that the current alternatives provided in the DEIS encompass the educational benefits of whale watching, nor acknowledge the sentinel role that professional captains and naturalists provide to other vessels when on the water. These efforts extend beyond educating and modeling proper behavior to recreational boaters, and also include relaying the presence of whales to military vessels,

4a

ferries, tanker traffic, industrial work such as pile driving, and other activities which cannot be ignored when weighing impacts on Southern Resident orcas. Though the science panel determined that more study was necessary to affirm the sentinel effect, Orca Network volunteers, staff, and board members have witnessed, and can attest to, such actions. We support further study to positively affirm the mitigation efforts provided by whale watching, but we believe that anecdotal evidence by eyewitnesses should be included, and the sentinel role should not be discounted when creating the final rule. Not allowing commercial whale watching with Southern Residents poses a far greater risk to Southern Resident orcas by removing the trained professionals and eliminating the sentinel, educational, and monitoring role they play, while allowing recreational boats to continue to view Southern Residents without knowing or following regulations.

Much of the best available science in the DEIS is based on older studies that do not incorporate current regulations and voluntary practices by PWWA. The Washington State Academy of Sciences *Summary of Key Research Findings* states uncertainty on what the appropriate regulatory measures should be, given data gaps on baselines and the complexity of compounding factors when considering daily and cumulative effects.

4b

For example:

- “Given the complexity and interconnectivity of risk factors, it would be challenging to relate positive changes in body condition, reproductive success, calf survival, or population growth rate solely to vessel regulations.” – Yet the outlined alternatives, at its most restrictive, propose to restrict commercial whale watching operations for 8-11 months of the year; at its least restrictive 1-3 months. The basis for any proposal removing commercial whale watching boats for these determined timeframes throughout the year is unclear and is not supported by the science.
- “Few studies have looked directly at noise and disturbance effects on SRKWs, including their echolocation clicks, the degree of impact from sound exposure levels versus sound type variation, and the physical presence of boats. It remains unclear what an acceptable level of sound might be for this population...With adaptive management over the last 20 years, the data used in many studies has become quickly outdated. New data is necessary to determine the level of disturbance under current management.” Though there is no established baseline or threshold for noise and disturbance currently applicable for Southern Residents, the most recent Washington State regulations regarding vessel proximity and required speed reduction within half nautical mile (2019) when in the presence of Southern Residents has not yet been considered, studied, or analyzed for current effectiveness and/or impact. These regulations may already be reducing the cumulative noise and disturbance on Southern Resident orcas. Proposing to restrict commercial whale watching on Southern Residents for 1-11 months out of the year will drastically impact the ability to study the effectiveness of the 300/400 yard distance requirements and 7 knots speed within their vicinity. Without further research and evidence-based conclusions, there will be no definitive way to adaptively manage the industry’s viewing of Southern Residents. These measures should be considered in the final rule, and their effects studied as part of the adaptive management portion of the licensing program.
- “Using only sound levels as proxies for vessel impacts and ignoring the total presence, proximity, and relative orientation and movement of disturbances relative to the orcas will fall short of fully evaluating impacts from many sources and achieving science-based conservation.” - The only way to view vessel noise and disturbance is as a collective, and not compartmentalized. The Southern Residents are impacted by all noise and proximity, not just whale watching boats. To

4c

put acoustical impacts from whale watching boats into perspective, a JASCO report to the Vancouver Port Authority ECHO program “An Analysis of Regional Ocean Noise Contributors” (MacGillivray, et al. 2017) analyzed the acoustical data taken from the 2015 AIS report comprised of vessel noise data and environmental factors. The key findings in this report show that whale watching boats contribute 0.6% to underwater noise, whereas merchant ships and tugboats contribute 20%, and ferries contribute 66%. We’re addressing 0.6% in this process with the expectation that this is going to reduce daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident orcas. The JASCO report also states that “the overall findings indicate a significant reduction in noise levels when boats are conducting whale-watching activities at slow speeds, less than seven knots, compared to fast transit speeds of greater than 15 knots.” And “it should be noted that these conclusions are based on relatively small sample size per vessel type. More measurements at a more controlled site (not within commercial shipping lanes) could be warranted.” Another assertion that more data is needed to measure impacts and produce conclusive evidence.

Assessing the uncertainty surrounding the available science paired with the data gaps, the connection between the science and the alternatives is not clear, and therefore hard to endorse.

According to Soundwatch data, an average of roughly five commercial whale watching vessels were within one half nautical mile of orcas in 2019, regularly, when they were present. Vessels of all types, on average, viewed orcas between 10:00 AM and 5:00 PM, and in 2019 the peak numbers of vessels around orcas occurred during the month of July. Most commercial whale watching trips for U.S.-based PWWA members currently occur between 9:00 AM and 6:00, with outliers providing sunset tours that may extend into 9:30pm. With this in mind, we are proposing the following to reduce daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident orcas:

- Days/Hours of CWW and SRKW Viewing: All commercial whale watch operations would be restricted by limiting commercial whale watch operations to daylight hours, 7 days per week, minus a 2-hour window during the day for research to be conducted to assess data gaps and study the behavior of recreational boats with and without whale watching boats present. The most appropriate time of day for this research will be established through consultations with the Pacific Whale Watch Association to determine least impact to their operations while accommodating research efforts.
- Vessels and Locations for SRKW Viewing: 3 commercial whale watch vessels would be allowed to view a group of Southern Resident orcas at a time, and the west side of San Juan Island (the current voluntary no-go zone that SRKWs frequently use for foraging) would be closed to commercial whale watch vessels (except for safety reasons) when Southern Resident orcas are in the vicinity.
- Reporting: Commercial whale watch operators would be required to report on the presence and location of Southern Resident orcas to WDFW Enforcement and monitoring vessels such as Soundwatch, and would be encouraged to provide documentation of their observations of Southern Resident orcas, such as sighting logs and other on-the-water observations.

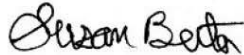
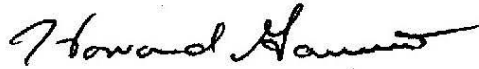
To conclude, we believe that education and experience are key to raising awareness and protecting the Southern Resident orcas. Professional captains and naturalists offer both components and safely operate vessels around whales regularly, collect vital data and surveys for scientists, alert the militaries of whale presence, and set a behavioral standard for recreational boaters to follow in the presence of

whales. It was our experience this summer, when the Southern Residents were present around the San Juan Islands, that private boaters were seen speeding through loose groups of whales, with no whale watching boats or enforcement boats there to act as sentinels or provide guidelines. The general public needs to understand that this type of behavior could cause disturbance, changes in behavior, and lost foraging time, and the commercial whale watch boats are in a good position to provide that education and awareness.

It is because of diminished prey resources that the Southern Residents are changing their travel and feeding patterns, spending far less time in what has been historically deemed their “critical summer habitat.” 2019 was the first year on record where there was not a single inland sighting of Southern Resident orcas in June. In 2020 there was not an inland sighting throughout the month of May, and that also coincided with a time when few boats were on the water due to COVID-19. The Southern Resident orcas are not being “chased out” by whale watching boats. They are searching for prey outside the Salish Sea.

We appreciate you taking the time to consider our concerns and suggestions and hope to see implementation of such in the final rule.

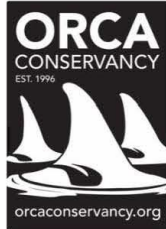
Sincerely,



Howard Garrett & Susan Berta
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October 23, 2020

Lisa Wood,
SEPA/NEPA Coordinator
WDFW Habitat Program
Protection Division
P.O. Box 43200
Olympia, WA 98504

RE: 20046 Commercial Whale Watching Licensing Program Draft Environmental Impact Statement

Dear Lisa,

Thank you for the opportunity to comment on the proposed Draft Environmental Impact Statement (DEIS), 20046 Commercial Whale Watching Licensing Program. Please add the following comment to the administrative record.

Orca Conservancy is a 501(c)3 Washington State non-profit organization, established in 1996, with the mission of working on behalf of *Orcinus orca*, the killer whale, and protecting the wild places on which it depends. Orca Conservancy currently represents over 43,000 members and supporters, and collaborates with some of the world's top research institutions and environmental groups to address the most critical issues now facing wild orcas. The organization's urgent attention continues to focus on the remaining 74 members of the now critically endangered population of Southern Resident killer whales (SRKW). The SRKW population is comprised of three pods (identified as J, K, and L pods) and is arguably the most familiar killer whale population to the general public.

In addition to defining alternatives, an important function of the DEIS is to identify reasonably foreseeable consequences and consider cumulative effects. While the DEIS describes the alternatives, and takes a modular approach facilitating combining the best features of each alternative into a new alternative for the final EIS -- it does an inadequate job of addressing foreseeable consequences and considering cumulative effects.

5a

Regrettably, the Commercial Whale Watching Licensing Program (CWWLP) Advisory Committee failed to reach consensus, and this appears related to the failure to consider reasonably foreseeable consequences. That is, industry representatives claimed they played a beneficial role, while others pointed out there was no evidence to support that claim.

Efforts to assess evidence combined data from times when boaters could relatively easily comply with regulations (i.e., they were free to travel at high speed until 200 yards from the whales) with data from when it was relatively difficult. e.g., boaters now need to detect whales in a mile-wide swath in time to slow down before approaching within ½ nautical mile, which would require sightings by a boater traveling at 20 knots from about 1.5 nautical miles away when whales do a 3-minute dive (a difficult task from a small boat).

Rather than debating past data, they should have discussed what was reasonably foreseeable under proposed licensing requirements.

5a

Further, the discussion of what was reasonably foreseeable should have addressed cumulative effects. That is, while the licensing requirements will only apply to commercial whale watching (CWW) operators, SRKWs face other threats that it is reasonably foreseeable where CWW could help mitigate (including noise exposure from other vessels, toxic chemicals, and prey shortages).

With the above in mind, Orca Conservancy will address these issues more comprehensively and suggest a new alternative.

Having said that, we need to consider what the impact of commercial whale watching is. National Marine Fisheries Service (NMFS) manages noise exposure on the premise that continuous noise exposure below 120 dB_{rms} re 1μPa will have no impact on marine mammals. Orca Conservancy disagrees with NMFS (e.g., Williams *et al.* 2002 showed a received level in the 105-115 dB range caused obvious changes in behavior), and has advocated for the Washington State regulations, which are designed to cap noise exposure at about 100 dB by increasing the minimum approach distance to 300-yards and requiring slow speeds when vessels are within ½ nautical mile (after a recommendation by Bain [2001], and see Bain *et al.* [2014]). Further, compliance with speed and distance requirements under Washington law ensures that commercial whale watching has no impact on whales. Further, the Endangered Species Act (ESA) prohibits deliberate take of endangered species, and as mentioned above, the federal government does not believe that vessels in compliance with Washington law are having a negative impact.

Notably, if whale watching has no impact when conducted in compliance with the state regulations, the direct impact of CWW will be the same whether it is conducted continuously or not at all. Thus, claims that the alternatives that increasingly limit commercial whale watching become increasingly more protective are baseless.

Additionally, we recognize that perfect compliance is not achievable. Washington law provides exceptions for navigational safety, and it is reasonably foreseeable that CWW vessels may not be able to safely comply with distance and speed regulations, on occasion. Therefore, it is reasonably foreseeable that honest mistakes will be made around whales whose presence they are not aware of or whose unexpected movements result in CWW vessels being too close. Meaning, any restrictions on timing of whale watching should be tied to the likelihood that CWW vessels will not be able to comply with speed

and distance regulations due to factors like navigational safety, not arbitrary factors like time of day, day of year, etc.

The issue then becomes what set of licensing requirements can minimize cumulative effects of anthropogenic threats on SRKWs?

That is, under the proposed licensing requirements, do CWW vessels:

- Prevent more violations than they cause?
- Do they carry passengers that otherwise would be recreational boaters not restricted by licensing requirements?
- Do they contribute to salmon recovery through actions of passengers educated on CWW trips?
- Do passengers act to reduce the discharge of toxic chemicals or the amount of toxins reaching salmon bearing streams?

The DEIS correctly notes that circumstances and best available science can change, and that adaptive management will be required to optimize requirements through time; e.g., more effective approaches to directing recreational vessels around whales could be developed and become licensing requirements. An association between approach distance or viewing duration and passenger action could suggest revisions to regulations or licensing requirements.

An underlying point of contention is whether under the licensing requirements is how CWW vessels will play a protective role. Bain (2007) reported on vessel behavior observed from shore in the presence and absence of Soundwatch, and found close approaches to whales were more common when Soundwatch was absent than when it was present, and that Soundwatch alone lacked the capacity to prevent all violations. That being said, this confirms that vessels on the water can have a protective function. Regardless of what past data show about the protective role of CWW, it is reasonably foreseeable that CWW vessels emulating Soundwatch's approach to vessel management could serve a protective role, if required to do so as a licensing requirement.

5b

Number of Vessels

The relationship between vessel number within about 100 yards and behavior suggests that the first vessel has the greatest impact, and additional vessels continue to increase the impact but to a lesser degree (Kruse 1991, Williams and Ashe 2007). Data are weak that slow-moving vessels beyond 300-yards have any impact, regardless of number, since received noise from them are lower than typical ambient.

Mechanisms for Impact include Proximity, Exhaust and Noise

Compliance with the 300-yard minimum approach distance should eliminate effects from proximity. Impacts of exhaust were notable when the minimum approach distance was 100 yards. However, the increase in minimum approach distance to 200-yards essentially eliminated exhaust impact, and the new requirement to stay 300- to 400-yards away is likely to drop CWW vessel exhaust into the background of terrestrial vehicle exhaust, wildfire smoke, and regional vessel exhaust.

Noise level is determined primarily by the loudest vessel (Houghton et al. 2015). Typically, this will be determined by unregulated vessels (commercial shipping and fast traveling recreational vessels beyond the half mile bubble where small vessels are regulated). The only time vessel number will play a meaningful role in determining noise is when numerous vessels produce similar received levels.

It should be noted that the number of vessels includes recreational whale watching vessels, other recreational vessels, research vessels, fishing vessels, and may include commercial shipping, military and other vessels. Therefore, regulating CWW vessels alone will not achieve vessel number targets, and it is reasonably foreseeable that vessel licensing requirements could enlist CWW in co-managing the behavior of other vessels in achieving number targets. Thus, co-managing vessel number could be made a licensing requirement, reporting on vessel number should be required, and success in limiting vessel number should be a consideration in license renewal and adaptive management.

5c

A foreseeable consequence of limiting CWW is that potential passengers will whale watch from recreational vessels instead. This would be expected to result in an increase in the number of vessels around whales by operators less skilled in determining speed and distance and who have less comprehensive knowledge of whale locations and likely movements, should a moratorium on CWW be implemented. The result would be a decrease in impact from CWW, but an increase in overall impact from whale watching.

5d

Duration

The duration of exposure to impactful vessels is a concern. However, while managing duration of legally operating vessels is likely to affect human experience, it is unlikely to be significant for the whales. Typically, the number of vessels exceeds the number of groups of whales. Group membership changes frequently. Thus, when a vessel leaves a group, another vessel, whether commercial or recreational, is likely to take its place. If and/or when a whale changes groups, it may or may not have the same duration of viewing history as members of its new group.

5e

Viewing Hours | Hours of CWW Operation

In contrast, hours of operation are a regulatory action that has potential to make a difference. Recreational fishing vessels become numerous at first light, so it is reasonably foreseeable that CWW could play a mitigation role as early as they want to get out on the water. However, late in the day, the number of recreational vessels on the water is typically small, so there is less potential for CWW to play a vessel management role.

Viewing Days | Days of Operation

As with time of day, recreational traffic varies with day of the week, and can be exceptionally high on holiday weekends. More protective vessels are required when the number of recreational vessels is high, as educational vessels like Soundwatch have a limit to the number of vessels they can address at once.

Viewing Season | Operating Season

Recreational vessel numbers vary seasonally, as does whale distribution. E.g., SRKWs spend more time in the Seattle area in the fall than they do in the summer. Meaning, they are exposed to ship noise from vessels using the ports of Tacoma, Seattle, and Everett. They are exposed to noise from ferries. They are more likely to be exposed to noise from wind and rain. Therefore, it is less likely that a mistake by a CWW operator will result in an increase in noise. Conversely, it is more likely that navigational safety will be a factor in distance and velocity.

The presence of non-CWW protective vessels is different. The roles of these vessels may change, requiring adaptive management. e.g., numerous Coast Guard vessels are on the water in the Seattle area, but tend to focus their efforts on ferries rather than whales. Local police and sheriff vessels are more common, so there is potential for a WDFW-like function should local jurisdictions decide to

purpose them that way. Until such time as these government vessels assume a protective role, CWW vessels are the only ones with the potential to do so.

Restricted Access

Restricted access is only valuable if all vessels comply. The reduction in vessel number under COVID-19 restrictions while fishing was closed in 2020 made closures to CWW something worth considering. However, when recreational fishing was open in 2020, and under conditions in typical years, closures to CWW would have been useless for SRKWs. Any areas proposed for closure would need to be evaluated both for their value to the whales and how the impact of all vessel traffic would change if the area were closed to CWW.

Sonar Use

In general, CWW should not need to use sonar when with whales. Best practice would be to not operate close enough to shallow water where loss of control could result in a grounding, and sonar use would not add to safety in that context. Exceptions would be larger vessels that are required to use sonar to comply with federal regulations. Further, use of sonar must be allowed near port where shallow water is to be expected, but whale presence is not, and running aground is a possibility.

5f

Reporting

Proposal J posits benefits of CWW. Reporting should be adequate to evaluate the degree to which these benefits are delivered, and whether there is variation among operators in their success.

Sentinel Role

There is a paucity of data on the sentinel/magnet role of commercial whale watching. There is anecdotal evidence that both are real. There are data supporting that Soundwatch plays a sentinel role. There are also data that Soundwatch is not completely successful in playing that sentinel role. Soundwatch collects data on vessel behavior in its presence. However, it can only be in one place at a time. Shore-based monitoring is another approach to assessing how recreational vessels behave in the presence and absence of CWW. Therefore, self-reporting on sentinel actions and their success or failure will be important both to increasing the success rate and evaluating the cumulative effect of all vessels on the water.

5g

Research

Reports should include collaboration with permitted researchers. Inclusion of collaboration with non-permitted research will be helpful. It would be helpful to have a bibliography of scientific publications, technical reports, and theses to illustrate the contribution of CWW to SRKW conservation science.

Adaptive Management

Reports should include recommendations for changes in licensing requirements.

AIS

AIS can be used to record vessel movement. AIS tracks should be included in all reports.

Prey Availability

Prey availability plays an important role in SRKW population dynamics. And, habitat restoration will play an important role in increasing prey availability. Therefore, CWW operators have the opportunity to educate their passengers about roles they can play, including contributing to restoration groups, participating in restoration projects, and commenting on legislative and policy issues that will increase prey availability, such as dam removal. Reports should include the number of passengers reached and the approach(es) used, and actions taken by passengers over the reporting year.

Toxins

Similarly, education about toxins usage and resulting changes in passenger behavior should be reported. The four alternatives purport to provide decreasing protection for SRKWs from 1-4. However, as discussed above, while these alternatives have been weighed for the protection they provide from CWW, they were not weighed for the protection they provide from all threats. In fact, alternatives 1-3 are likely to lead to an increase in cumulative harm, and the no action alternative offers no benefit. Therefore, all 4 alternatives should be rejected.

Proposals J and L differ in their assumptions on whether CWW provides a net benefit or causes harm to SRKWs. Proposal J outlines benefits that whale watching may provide, while Proposal L questions whether those benefits are real. While the discussion contained in these proposals focuses on what happened the last five years, for purposes of the DEIS, the discussion should focus on what is reasonably foreseeable under the various alternatives.

Proposal L acknowledges there is a paucity of data regarding whether the benefits claimed in Proposal J actually occur.

Regarding the sentinel effect, a study by Hass (2020) is cited regarding rates of violation of whale watching regulations as a function of the number of professional whale watching vessels present (CWW and other vessels such as Soundwatch). However, whale watching regulations changed in the last year of the study. For example, a recreational vessel traveling 30 knots at 200 meters from the whales would not have been in violation of regulations in 2015-2018, but would have been in 2019. Similarly, a recreational vessel traveling 10 knots at 800 meters would have been in violation in 2019 but not in 2015-2018. The ability of a single vessel such as Soundwatch to prevent violations in a 200-yard bubble where speed is not a factor is reasonably expected to be different than its ability to manage a ½ NM bubble where speed needs to be controlled.

Another consideration omitted from Proposal L is that if CWW is prohibited, recreational whale watching may reasonably be expected to increase. Operators of recreational vessels are likely to be less skilled than professional operators; and recreational vessels are likely to carry fewer people than commercial vessels, leading to a net increase in vessels around the whales, and possibly an increase in violations.

Regarding the magnet effect, the study assumed that the presence of commercial whale watching vessels draws attention to the whales' position. While it is reasonable that this is the case, the study failed to consider other factors such as reports on real-time sighting networks and the presence of non-CWW vessels that reveal whale locations.

While Proposal L expresses concern about the magnet effect, it advocates for mandatory reporting of AIS positions, even if the vessels are watching SRKWs. However, AIS data are available to the public in

real-time, so this requirement facilitates the magnet effect Proposal L intends to reduce.

No-go zones are part of Proposal L. While these have potential, it should be pointed out that no-go zones that apply only to CWW will have limited benefits to SRKWs. Thus, a criterion for no-go zones is that they should also be closed to recreational fishing, and that there are reasonable alternative routes for vessels transiting the area.

Proposal L addresses conduct during fog. While there are obvious problems with legal whale watching when visibility is less than 300-yards, practices of other vessels need to be considered when visibility is a little greater but limited. Many vessels employ radar in fog. While it is sometimes possible to detect SRKWs with radar, it can be difficult to distinguish them from other intermittent reflectors, if they return a detectable echo at all. In contrast, CWW vessels are easily detected with radar. Proposal L accepts a sentinel role for CWW when other protection vessels are not around. It seems this role would be even more important in fog. e.g., when visibility is less than ½ nautical mile, it would be impossible for recreational vessels to know where to slow down to avoid traveling in excess of 7 knots within ½ NM of whales.

Proposal L notes that what the public perceives as good for the whales is good for the CWW business. Thus, it would seem that backing away from an ideologic approach that calls for a suspension of whale watching regardless of the impact on SRKWs and replacing it with licensing requirements that require CWW vessels to act in the best interest of SRKWs would not draw objections from the CWW industry the way Proposal L has.

Proposal L recommends revisiting requirements once the population reaches 84 whales over the age of two years old. Even under ideal conditions, this would take 7 years. This is much too long an interval for effective adaptive management.

Proposal L poses the question of how wide the no-go zone along the West Side of San Juan Island should be. Bain et al. (2006) found that SRKWs typically travel approximately ¼ mile offshore. Therefore, asking boats to travel ¼ mile offshore would actually maximize impact of recreational vessels on whales. A ¾ to 1-mile no-go zone would do better at keeping vessels outside the ½ NM bubble when whales are present. However, this raises safety issues with ships in the shipping lanes, and issues with border crossing should small vessels choose to avoid ships by traveling beyond the Canadian side of the shipping lanes while the border is closed.

Whether a no-go zone could be successfully implemented while maintaining navigational safety should be carefully considered. If not, incentives for using this area should be eliminated, through actions such as closing it to recreational fishing. Similarly, mariners could be encouraged to transit east of San Juan Island rather than through Haro Strait.

Below, we address licensing requirements designed to meet the ESA mandate of no take of an endangered species while achieving what is in the best interest of the whales.

Licensing requirements should require successful achievement of the claimed benefits of CWW listed in Proposal J. This requires two components. First, the benefits must actually be achieved. Second, data need to be submitted supporting the claims. Ideally, the data would be independent, such as Soundwatch data on violations, but in some cases the data will need to be provided by the industry itself

(e.g., records of violations in the absence of Soundwatch and WDFW).

The license should require CWW vessels to play a sentinel role when within 1 NM of SRKWs. This would give them $\frac{1}{2}$ NM to contact approaching vessels and slow them down before they reach the slow-go bubble, and $\frac{3}{4}$ NM before vessels would reach the no-go portion of the bubble. The more distant CWW vessels would have the opportunity to move to intercept recreational vessels, whereas CWW vessels within the $\frac{1}{2}$ NM bubble would be restricted in their movements.

As part of the sentinel role, CWW vessels should carry at least one crew member who was trained in the previous year by WDFW in how to collect evidence on violations in a way that will allow the evidence and testimony to be legally admissible.

Licensees should be required to cooperate with NMFS permitted researchers. While there should be flexibility in the degree of cooperation, WDFW would be able to consider the degree of cooperation in making license renewal decisions.

Licenses should require passenger education about the role they can play in increasing prey availability. This should include information about lifestyle choices that impact salmon abundance, participation in salmon habitat restoration, groups conducting habitat restoration that could use financial support, and how to participate in policy decisions including lobbying for legislation and commenting on policy proposals. The success licensees have in engaging passengers in these activities should be reported annually.

Data sharing

Data on sighting times, locations, and distances should be shared with regulatory agencies and scientific researchers. Data on interactions with recreational vessels should be shared with regulatory agencies.

Communication

CWW operators should be required to notify WDFW, Soundwatch, and other vessels performing a protective function when SRKWs are located, and keep them updated on positions until this assistance is no longer required. CWW operators should communicate with each other to prevent violations, manage numbers of vessels around whales, and manage duration of observation. CWW operators should communicate with researchers to support their efforts.

Time limits

The number of vessels should be optimal for the whales and time should be shared equitably amongst the people. Time limits should depend on the day, and the amount of CWW and recreational boaters on the water. Meaning, if a particular day takes six CWW boats to control the recreational boaters, each CWW should receive equal time in one of the six protective positions, but on a day that only three protective CWW vessels were required, there would be less time to share.

Number of vessels

The number of CWW vessels should be determined through adaptive management. A good starting number would be three-four. This would allow one to mark the front of the bubble, one to mark the back of the bubble, and one to two to mark the offshore edge of the bubble. The number in the best interest of the whales of the whales is likely to be variable. e.g., when the number of recreational vessels is small, this minimal configuration is likely to be sufficient. However, when there are large numbers of recreational vessels, additional CWW vessels may be needed to both talk with individual vessels and

mark boundaries. This suggests day of week, time of day, season of year and location are likely to be correlated with the number of CWW vessels that is optimal for the whales. Further, the presence of WDFW and or Soundwatch may reduce the number of CWW required to perform the sentinel role. Over the years, the number of CWW vessels needed may decline as recreational boaters become better informed. However, NMFS noted that most boaters reported they were unfamiliar with whale watching regulations five years after new regulations were adopted, so a reduction is likely to be gradual.

Duration, Viewing Hours / Hours of CWW Operation, Viewing Days / Days of Operation and Viewing Season / Operating Season

As noted above, there is likely to be an optimal number of CWW vessels in the bubble that will change with time, day, season and location. Duration of viewing should be managed to ensure equitable sharing of viewing time among vessels while maintaining the optimal number for protection. This number will vary with circumstances such as the number of whale groups present and the total number of CWW trips scheduled, and which have an interest in viewing SRKWs. Ideally, licensees will be able to work viewing schedules out among themselves. If not, WDFW could designate an arbiter to make binding decisions about distribution of viewing time.

Restricted access

As mentioned above, CWW should be managed to optimize its sentinel role. Where the use of an area by other vessels is rare, the sentinel role would be unnecessary, and the area could be closed to CWW. When the notion of area closures was first proposed, SRKWs consistently used the West Side of San Juan Island. However, while the proposal has been languishing, SRKWs became less consistent in their use of any particular area. At present, a protective bubble rather than a permanent closure is preferable, as closures while whales are not present provide no benefit to the whales and place a burden on the public. In fact, diverting vessels around an empty closed area is likely to harm the whales by increasing greenhouse gas production.

Effective communication with mariners would allow areas to be closed when whales are present, and open otherwise. Characteristics of good candidates for closure would be areas where whales are likely to forage when vessels are absent but unlikely to do so when vessels are present. Lusseau et al. (2009) noted that suppression of foraging by vessels was greater around central San Juan Island than off the southern part. This could be because fish locations are more predictable in the southern portion than the central portion due to bottom topography, so whales can get close enough to prey to detect them even with elevated levels of ambient noise from vessels.

Areas where whales rest in the absence of vessels would be other good candidates. Travel by whales seems least disrupted by vessels, provided distance and speed regulations are complied with.

Sonar Use

As mentioned above, sonar use near whales should not be permitted except when mandated by the federal government.

Reporting

Reporting can be divided into real-time, seasonal and annual requirements.

Real-time reporting of SRKW locations to WDFW and other protection vessels such as Soundwatch should be a licensing requirement. Use of AIS on all trips should be required, even for small vessels otherwise not required to carry AIS.

Summaries of 90 days of on the water activity should be due within 30 days of completion of the period (e.g., a summary of June through August would be due September 30th). The report should include AIS tracks of all trips. The tracks should be marked to indicate the times and places where Southern Residents were viewed. The information should be summarized in tabular form. The reports should include a record of contacts with recreational vessels and whether the contacts successfully prevented a violation.

Violations of distance and speed regulations should be self-reported. For each incident, the reason should be included, such as navigational safety or whales in unexpected locations. Self-reports should be cross-checked by WDFW against independent reports such as those by Soundwatch or researchers. Annual reports should address actions by passengers to promote SRKW recovery, such as donations to conservation groups, participation as a volunteer in restoration events, engagement in policy issues such as citizen lobbying or making public comments. Where possible, these reports should include the passenger's experience observing SRKWs (to allow adaptive management based on whether how passengers view SRKWs affects the likelihood that they will take protective action, and if so, whether duration and distance are factors).

Annual reports should also include activities that supported research.

Adaptive management

Adaptive management provides a mechanism for adjusting regulations in light of new data and changing circumstances. A valuable element in adaptive management would be the incorporation of professionally recognized standards in the regulations. The Pacific Whale Watch Association (PWWA) is more nimble than regulatory agencies, and could adopt improved practices more quickly than regulatory agencies. Allowing these new best management practices to be implemented for non-PWWA members prior to formal adoption by WDFW, NMFS and DFO would accelerate adaptive management.

Kayaks

Due to the silent nature of kayaks, license requirements need to ensure that kayaks do not approach closely and that they remain out of the path of whales, but due to their limited mobility, kayaks would not be expected to play a sentinel role, although they could play a role in enforcement. Kayak tour operators should be required to play an educational role about prey availability and toxins. It is reasonably foreseeable that navigational safety considerations will require kayakers to be within 300 yards of SRKWs at times, but it should be recognized that kayaks are unlikely to have an impact until they are within 100-200 yards.

5h

Finally, once the state has processed public comments and identified a preferred alternative, it should consult with its co-managers before finalizing these rules. As part of its adaptive management process, it should work with NMFS and DFO to try to implement comparable rules throughout the SRKW range.

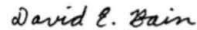
However, the state should not hesitate to be more protective than other jurisdictions if the other jurisdictions are unwilling to be as protective as the state.

Lastly, Orca Conservancy is happy to assist including answering any questions you may have. Please don't hesitate in reaching out. Thank you.

Sincerely,



Shari L. Tarantino
Executive Director



Dr. David E. Bain,
Chief Scientist

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23 October 2020

Julie Watson, Killer Whale Policy Lead
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Re: Draft Environmental Impact Statement (DEIS) for a Commercial Whale-watching (CWW) Licensing Program

Dear Ms. Wood and Ms. Watson:

I appreciate the effort that you and your colleagues have made to complete the subject DEIS. However, I believe it fails to meet the requirements of Washington State's Environmental Policy Act (SEPA). This letter describes my comments and concerns.

Most importantly, the DEIS fails to describe potential CWW effects in a manner and to the extent needed to ensure (1) that the public understands what is at stake and (2) decision-makers are informed about the potential consequences of their decisions. The scientific and other literature describing CWW effects on SRKWs is extensive and, to ensure well-informed decisions, WDFW is obliged to gather and integrate that information into this DEIS (and the final EIS) or at least provide the necessary references. The following paragraphs provide examples of important but missing or incomplete information.

The DEIS description of SRKW demography, status, and trends is incomplete and inadequate

6a

The southern resident killer whale (SRKW) population now consists of only 74 individuals but, beyond that single number, the population's composition, social structure, and vital rates (i.e., survival and reproduction) are critical to its conservation and management. For example, only 22 of those 74 individuals are females capable of breeding. Furthermore, in the next 12 years, the number of breeding females must WILL? decline because 9 of those 22 will become too old for reproduction and, at most, only 7 will become reproductively mature. The public and decision-makers also need to know that the whales's survival rates are poor for calves, adult whales (that should be in the prime of their lives), and post-reproductive females (which are important for social and foraging purposes). A thorough description of all of this information is missing from the DEIS, but is essential for understanding the population's status, trend, risk of extinction and vulnerability to CWW, and for making informed and reasoned decisions.

The DEIS description and analysis of risks to SRKWs is incomplete and inadequate

The impediments to SRKW recovery and conservation are generally recognized as a set of three main risk factors plus a set of additional risk factors that garner less attention but have

potentially significant effects. The three main risk factors are lack of prey, exposure to vessel noise and disturbance, and exposure to contaminants. The additional factors include the occurrence of low probability, high consequence events such as a disease or an oil spill, inbreeding depression of survival and reproductive rates, sex ratio bias in births (e.g., more males than females), social disruption, and ecosystem degradation (e.g., climate change). To make informed decisions about CWW and the risks that it poses to the whales, decision-makers need to understand all of the risks posed to this population, how those risk factors interact, their significance to SRKW recovery and conservation, and how those effects can be managed and mitigated. Preparing such a comprehensive assessment is not a trivial task but is essential to ensure informed decision-making. This DEIS does not provide anything close to a comprehensive account or assessment of these risks or the extensive scientific work done to investigate them, and therefore the DEIS does not adequately inform the public and decision-makers about the vulnerability of these whales to CWW.

The DEIS does not present a realistic analysis of the options considered for the licensing program and their effects on the whales

The heart of any environmental impact statement is its analysis of the potential environmental impacts of the options considered. This DEIS provides no such analysis and, therefore, fails to satisfy its most important objective. It provides an ordered ranking of potential management options but, alone, such ranking ignores the complexity of the situation and the extensive information that is already known. In essence, it ignores years of rigorous research on the factors affecting this population and, particularly, research on the effects of vessel noise and disturbance. It is as though the authors sought to dismiss all the valuable, informative information collected through years of rigorous, important research. That would be a serious step backward in the management of this highly endangered population.

The DEIS does not consider a no-CWW alternative

6b

The DEIS states that it will not consider options that exclude all CWW, but that position may preclude recovery. The Revised Code of Washington (RCW) 77.65.620 states 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.” That language does not prevent a temporary ban on CWW despite the fact that a ban may be essential to recovery. The population has been in a period of general decline since 1995, when it numbered 98 individuals, which indicates that the combined effects of all risk factors exceeds the coping ability of SRKWs to achieve a positive population growth rate. Absent an increase in prey availability and decrease in exposure to contaminants, the SRKW population appears unable to recover when also subjected to noise and disturbance caused by CWW. If that is the case, then it does not make sense that CWW be allowed to continue. Hence, at least a temporary ban appears essential to clarify the full effects of CWW on the population. Like Federal environmental impact statements under the National Environmental Policy Act, this DEIS should sharply define the issues, and a ban on CWW appears essential to investigate and elucidate the full effects of CWW and, therefore, sharply define the issues.

The DEIS does not address the conflict between the options considered and Federal laws

I do not believe that the State of Washington has the authority to license an activity that results in the taking of SRKWs and in so doing violates at least two Federal statutes: the Marine Mammal Protection Act of 1972 (MMPA) and the Endangered Species Act of 1973 (ESA). The MMPA prohibits “taking” of marine mammals. It defines a “take” to include harassment and it defines “harassment” to mean “any act of pursuit, torment, or annoyance which—

- (i) has the potential to injure a marine mammal or marine mammal stock in the wild; or
- (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.”

Clearly, CWW is an act of pursuit and annoyance that is known to disrupt behavior patterns and, I would argue, compromises the whales’ abilities to reproduce and survive.

Similarly, the ESA prohibits taking of endangered and threatened species and it defines a “take” to mean “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Here, too, CWW is an act of pursuit and harassment that has been shown to cause harm and, therefore, CWW also violates the ESA, whether sanctioned by the State of Washington or not. That being the case, the DEIS would be incomplete if it does not describe this legal conflict and provide a justification for CWW in that context.

The DEIS’ interpretation of adaptive management does not insure meaningful adaptation

The DEIS indicates that the WDFW will follow an “adaptive management” approach to adjust the license program as more is learned about CWW effects on SRKWs. However, the DEIS description is more appropriately referred to as “passive adaptive management” because it does not indicate what questions will be addressed, what variables will be monitored to answer those questions, or who will be responsible for that monitoring and assessment. For those reasons, “passive adaptive management” provides no assurance that the program will evolve as it should. The concept of “adaptive management” was instead developed to mean an “active” approach that identifies key issues, combines research and management strategies to clarify those issues, monitors progress, and makes adjustments based on what is learned. At this point in time, based on existing information and remaining uncertainties, WDFW should be able to plan and conduct specific, “active adaptive management.” The Scientific Committee recently convened by the Washington State Academy of Sciences recommended an adaptive management approach, but one more detailed and directed than what is described in the DEIS. Such detailed planning is essential if we truly intend to learn and improve our management and conservation efforts for this population.

Monitoring and enforcement are not addressed

The DEIS is nearly devoid of information about monitoring and enforcement, despite the fact that Soundwatch reports provide irrefutable, strong evidence that vessel operators (both

commercial and recreational) change their behavior substantially depending on the presence or absence of enforcement officials. That means that the effects on SRKW also will change depending on the presence of enforcement boats and officers. If the State cannot or will not support adequate monitoring and enforcement, then it cannot provide assurances that CWW will have no significant impacts on the whales. The DEIS should include descriptions of the State's enforcement capabilities, the costs of enforcement, and the source of those funds. The State should not be allowing CWW if it is not willing and able to provide the necessary enforcement.

Summary

Washington State's Department of Fish and Wildlife is charged with a task that has serious implications for the fate of the iconic SRKW population. The manner in which it completes this task is important and should reflect our best thinking and understanding of the current SRKW population and the risk factors that will determine whether it survives or perishes. It is therefore incumbent on the Department to provide an up-to-date analysis of the program's potential effects, taking into account the risks involved and the wealth of scientific information on the population, its environment, and the factors that put its survival at risk. As well intended as it may be, this DEIS does not do that. I therefore urge the Department to bring together the people who have the skills and knowledge consistent with the cutting edge of research on and management of the population. Although that will delay the development of the license program, doing so is essential to ensure the best decisions are made to conserve the SRKW population.

Sincerely,

Timothy J. Ragen, Ph.D

Cc: Nate Pamplin, Washington Department of Fish and Wildlife
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Submitted via online comment form

October 23, 2020

RE: Draft Programmatic Environmental Impact Statement: Commercial Whale Watching Licensing Program

Dear Ms. Wood,

We appreciate the opportunity to provide comments to the Washington Department of Fish and Wildlife (WDFW) on the draft environmental impact statement (DEIS) for the Commercial Whale Watching Licensing Program.

As outlined in legislation, the commercial whale-watching license program “must effectively reduce the daily and cumulative impacts on southern resident orcas and consider the economic viability of license holders.” The rules must be based on the best available science and apply the precautionary principle, given the crisis facing this highly endangered species and the opportunity to quickly address the threat of noise and disturbance while continuing to work on other threats.

We have several concerns with the DEIS and provide below some suggestions to address gaps therein. These changes will help ensure that the final EIS provides a foundation for good decision-making—both now as the draft rules are being crafted and finalized, and in the future when it is time for adaptive management.

1. The “most restrictive” alternative is flawed.

There should be an alternative that clearly states 0 motorized commercial whale-watching boats in the vicinity of southern resident orcas (at least 0.5 nautical miles) for the full year. That would be most precautionary and protective.

7a

We cannot support an alternative that would restrict *all* commercial whale-watching operations, for viewing any species of wildlife. Restricting *all* commercial whale-watching was not the charge or intent of this legislation, nor was it proposed by any of the Advisory Committee members. It muddies the “most restrictive” Alternative 1 by making it excessively restrictive with regard to other species while overly lenient with regard to viewing the critically endangered southern residents.

7b

Furthermore, it effectively eliminates from consideration the limitations on viewing southern residents by tying those limitations to untenable restrictions on all commercial whale-watching. As stated on page 24, “As it is currently constructed, Alternative 1 is unlikely to meet the WDFW mandate. Alternative 1 places restrictions on CWW operating days/time that may not be economically viable for CWW license holders.” Alternative 1 should have been constructed in good faith in a way that could reasonably meet the WDFW mandate.

7c

Requested change: Modification of Alternative 1 or inclusion of a new alternative with 1) no motorized commercial whale-watching boats in the vicinity of southern resident orcas for the full year, and 2) no restrictions on whale-watching of other species.

7d

2. The alternatives laid out in this DEIS are not sufficiently clear, specific, or concrete to support good decision-making or allow for adequately informed public comments.

- Alternative 1, the “most restrictive,” is described as anywhere from 0-2 boats, seasonally or year-round. It is impossible to evaluate the benefit of having this arrangement in place for 8 months, 11 months, or year-round, especially without specifying whether the 8 months or 11 months would include or avoid the summer months that currently coincide with peak whale-watching. It is not until page 45 that the DEIS says that the 8-11 months would “likely cover” the summer season.
 - It should be made explicit in the EIS that meaningful restrictions in the summer season will have much more benefit for the orcas than similar restrictions in the off-season.
 - **Suggested edit to page 22:** “This alternative would likely result in the most substantial reductions in daily and cumulative noise and disturbance impacts to SRKWs from CWW vessels, particularly from the components that limit vessels around SRKWs and the times for CWW operations and SRKW viewing, **assuming that the limitations apply to the peak whale-watching season (i.e., May through September) or year-round.**”
- Alternative 2 could cover 4 months, 7 months, or year-round; without being more specific in terms of duration and the seasons that would be included, it is impossible to evaluate the benefits of this alternative for the orcas. Restricting whale-watching for the seven months from October to April, for example, but allowing it for all of the summer months, would do very little to reduce impacts on the whales.
- Alternative 3 could be implemented for as little as one month, or as much as year-round—an enormous range of possibilities that makes it impossible to evaluate.¹

7e

7f

¹ Or perhaps not—either way, the benefits would be minimal, as it only cuts viewing days from 7 to 6 days per week.

- It is also impossible to evaluate the benefits of an alternative that requires kayak tours to adhere to “some, or all” of the KELP best practices without noting what those are. 7g
 - **Requested change:** Inclusion of the following specific requirements, which are in the pre-draft rules released by WDFW, in Alternatives 1 and 2:
 - It is unlawful to launch if southern resident killer whales are within one-half nautical mile of the launch location.
 - Vessels are prohibited from paddling, positioning, or waiting in the path of a southern resident killer whale. If a southern resident killer whale is moving towards the vessels, the vessels must immediately move out of the path of the whale.
 - If vessels inadvertently encounter a southern resident killer whale, they must 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 killer whales have moved to at least 400 yards away from the vessels.

3. AIS should be included as a component of the rules in at least one of the alternatives, not left to the separate “mitigation measure” category. 7h

It is unclear why AIS is listed as a “mitigation measure” rather than as one of the rules. AIS requirements were proposed by multiple Advisory Committee members throughout the process, from the beginning, and in SEPA scoping comments. The legislation specifically allows WDFW to consider requiring AIS as part of the rules (RCW 77.66.620) and therefore it falls squarely within the scope of what can be mandated in the rule-making process. It is also contemplated in the pre-draft rules issued by WDFW.

Requested change: Inclusion of the AIS requirement as a component of the rules in Alternatives 1 and 2.

4. Reporting requirements should include reporting to the WhaleReport Alert System. 7i

Reporting to the WRAS was listed as a potential mitigation measure, but it should be part of the reporting requirements in multiple alternatives. This is something that has been actively discussed by the Advisory Committee, included in an Advisory Committee proposal, and considered by WDFW in the draft rulemaking. It should also be clear that this reporting should be done in real time.

It will still be important to include reporting directly to WDFW, as the Pacific Whale Watch Association does not currently allow its sightings data in WRAS to be shared with WDFW.

Requested edits to Alternative 1:

Reporting: CWW operators would be required to **immediately** report on the presence and location of SRKW to **the WhaleReport Alert System** and WDFW Enforcement. **They may also be required to** and/or provide documentation of their observations of SRKWs, such as logs of SRKW sightings, viewing, and other on-the-water observations.”

5. Alternative 3 is not meaningfully different from Alternative 4 (status quo).

Alternative 3 allows 5-10 commercial whale-watching vessels (one to two times the current average), 46-60 minutes of viewing time (similar to current PWWA voluntary guidelines), and it restricts viewing hours only by eliminating those when operators do not typically offer tours (e.g., 1-2 hours after sunrise, which is very early in the summers). It only reduces viewing by one day per week and for 1-3 unspecified months, which means those restrictions could occur in the winter months when whale-watching operators are not typically offering tours.

Requested change: Alternative 3 should be more different from the status quo. It should also specify whether the restricted months encompass the summer or allow full viewing in the summer, or at least explicitly note that the benefits to the whales will depend on which months carry restrictions.

6. The methodology used for calculating the percent reduction in viewing days is flawed.

The results of this calculation (e.g., on page 23) are meaningless, since the methodology does not consider which months would carry restrictions, nor does it consider overlaps with either the typical southern resident presence in the inland waters or the peak whale-watching season. If the restricted months were the winter months, when the southern residents are less likely to be in the inland waters and the commercial whale-watching operators are unlikely to be offering tours, the actual number of viewing days would be unlikely to decrease at all, in practice. The alternatives must be more specific of the relative impacts of restrictions in different seasons, given seasonal trends in southern resident orca presence and commercial whale-watching activity.

7j

Suggested edits:

On page 23:

“Under Alternative 1, SRKW viewing days are reduced by at least 71% per week and hours of the day are reduced by at least 55% compared to when most CWW currently occurs, **assuming restrictions are in place during the peak whale-watching season or year-round.**”

7k

On page 25:

“Under Alternative 2, the number of operational days is reduced by 28% to 57% and the hours per day is reduced by 11% to 55% (assuming a nine-hour viewing time **and that restrictions are in place during the peak whale-watching season**).

7l

And similar edits in other places that discuss reduction in SRKW viewing days.

7. The DEIS should not be considering the recreation opportunities provided by commercial whale-watching operations.

7m

Justifying rules through a lens of recreation opportunities was not part of the legislative mandate. Furthermore, there are many recreational opportunities to view the orcas from shore. There are also plentiful recreational opportunities to view the transient orcas and other marine mammals on commercial whale-watching tours.

8. The precautionary principle should be a guide.

The section on uncertainty on page 21 should note what the WSAS science panel concluded about treating every interaction as an opportunity for disturbance. While this concept was noted in a different section on page 22, it left out any reference to the precautionary principle.

7n

Requested edit: In the uncertainty section on page 21, include the specific language from the WSAS document:

“...the committee recommends defining every interaction as an opportunity to disturb a whale and taking a precautionary management approach.” (Q&A prepared for the WDFW Advisory Committee by the Washington State Academy of Sciences)

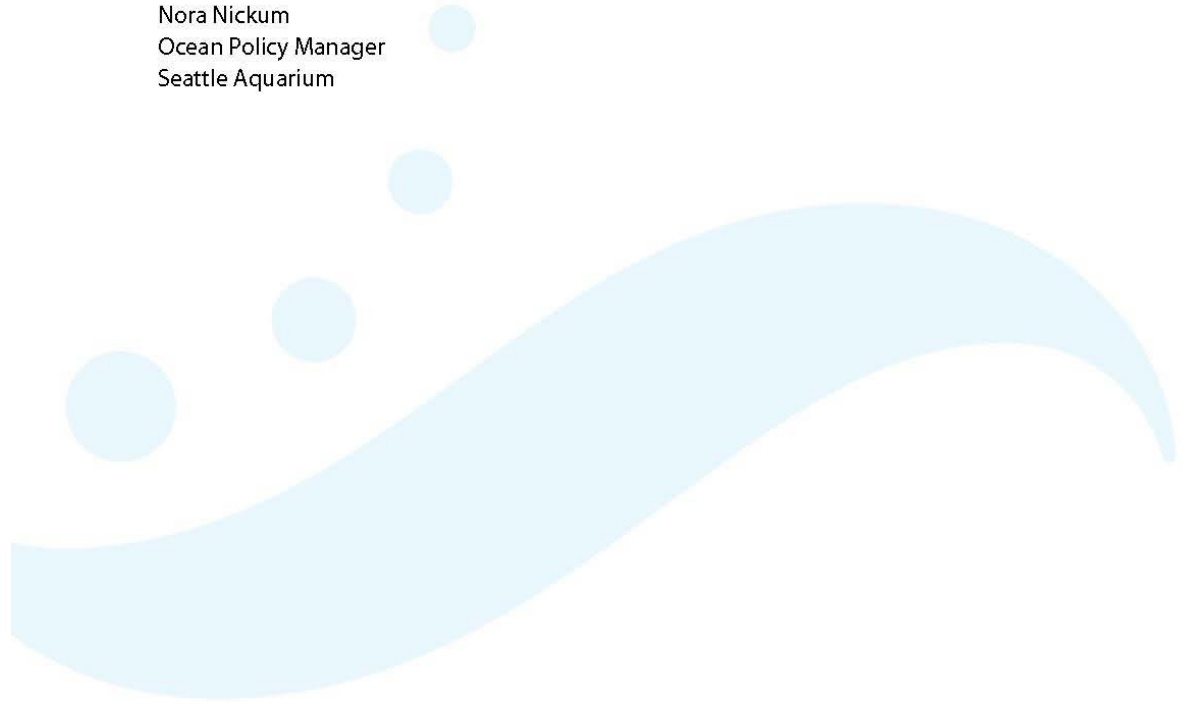
In conclusion, we support a sustainable whale-watching industry. Whale-watching and the education that goes with those experiences can directly increase public support for conservation. Whale-watching is also important to the local and state economy. Fortunately, other marine mammal species are commonly seen and provide solid viewing opportunities to support ongoing tours and education. As noted in the DEIS, whale-watching ridership *increased* in Canada in 2019 with new restrictions in place, and US revenue of Pacific Whale Watch Association members increased since 2011 after new federal regulations were promulgated. Protecting the highly endangered population of southern resident orcas will be beneficial not only for the whales themselves but also for the local economy and the long-term economic viability of license holders. The DEIS should provide a stronger basis for that decision-making.

Thank you for considering our comments.

Sincerely,



Nora Nickum
Ocean Policy Manager
Seattle Aquarium



Washington State Department of Fish and Wildlife
 Attn: Lisa Wood, SEPA/NEPA Coordinator
 P.O. Box 43200
 Olympia, WA 98504

Submitted via online comment form

October 23, 2020

RE: Draft Programmatic Environmental Impact Statement: Commercial Whale Watching Licensing Program

Dear Ms. Wood,

We appreciate the opportunity to provide comments to the Washington Department of Fish and Wildlife (WDFW) on the draft environmental impact statement (DEIS) for the Commercial Whale Watching Licensing Program.

The rules must be based on the best available science and apply the precautionary principle, given the crisis facing this highly endangered species and the opportunity to quickly address the threat of noise and disturbance while continuing to work on other threats.

We have several concerns with the DEIS. Below are suggestions regarding the DEIS deficiencies which, if addressed, will ensure that the final EIS provides a foundation for good decision-making, both now as the draft rules are being crafted and finalized, and in the future when it is time for adaptive management.

1. The “most restrictive” alternative is flawed.

There should be an alternative that clearly states 0 motorized commercial whale-watching boats in the vicinity of southern resident orcas (at least 0.5 nautical miles) for the full year. That would be most precautionary and protective.

8a

We cannot support an alternative that would restrict *all* commercial whale-watching operations, for viewing any species of wildlife. Restricting *all* commercial whale-watching was not the charge or intent of this legislation, nor was it proposed by any of the Advisory Committee members. It muddies the “most restrictive” Alternative 1 by making it excessively restrictive with regard to other species while overly lenient with regard to viewing the critically endangered southern residents.

8b

Furthermore, it effectively eliminates from consideration the limitations on viewing southern residents by tying those limitations to untenable restrictions on all commercial whale-watching. As stated on page 24, “As it is currently constructed, Alternative 1 is unlikely to meet the WDFW mandate. Alternative 1 places restrictions on CWW operating days/time that may not be

8c

economically viable for CWW license holders.” Alternative 1 should have been constructed in good faith in a way that could reasonably meet the WDFW mandate.

Requested change: Modification of Alternative 1 or inclusion of a new alternative with 1) no motorized commercial whale-watching boats in the vicinity of southern resident orcas for the full year, and 2) no restrictions on whale-watching of other species.

8d

2. The DEIS does not accurately state the purpose of the license program.

As outlined in legislation, the commercial whale-watching license program and rules “must effectively reduce the daily and cumulative impacts on southern resident orcas and consider the economic viability of license holders.” The purpose is not to “ensure sustainable whale watching practices that reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered SRKW” as stated on page vi in the Executive Summary of the DEIS.

Requested change: We request that the Final EIS accurately state the intent and purpose of the license program per the legislation.

3. The alternatives laid out in this DEIS are not sufficiently clear, specific, or concrete to support good decision-making or allow for adequately informed public comments.

- Alternative 1, the “most restrictive,” is described as anywhere from 0-2 boats, seasonally or year-round. It is impossible to evaluate the benefit of having this arrangement in place for 8 months, 11 months, or year-round, especially without specifying whether the 8 months or 11 months would include or avoid the summer months that currently coincide with peak whale-watching. It is not until page 45 that the DEIS says that the 8-11 months would “likely cover” the summer season. It should be made explicit in the EIS that meaningful restrictions in the summer season will have much more benefit for the orcas than similar restrictions in the off-season.
 - **Requested edit to page 22:** “This alternative would likely result in the most substantial reductions in daily and cumulative noise and disturbance impacts to SRKWs from CWW vessels, particularly from the components that limit vessels around SRKWs and the times for CWW operations and SRKW viewing, **assuming that the limitations apply to the peak whale-watching season (i.e., May through September) or year-round.**”
- Alternative 2 could cover 4 months, 7 months, or year-round; without being more specific in terms of duration and the seasons that would be included, it is impossible to evaluate the benefits of this alternative for the orcas. Restricting whale-watching for the seven months from October to April, for example, but allowing it for all of the summer months, would do very little to reduce impacts on the whales.

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- Alternative 3 could be implemented for as little as one month, or as much as year-round—an enormous range of possibilities that makes it impossible to evaluate.¹
- It is also impossible to evaluate the benefits of an alternative that requires kayak tours to adhere to “some, or all” of the KELP best practices without noting what those are.
 - **Requested change:** Inclusion of the following specific requirements, which are in the pre-draft rules released by WDFW, in Alternatives 1 and 2:
 - It is unlawful to launch if southern resident killer whales are within one-half nautical mile of the launch location.
 - Vessels are prohibited from paddling, positioning, or waiting in the path of a southern resident killer whale. If a southern resident killer whale is moving towards the vessels, the vessels must immediately move out of the path of the whale.
 - If vessels inadvertently encounter a southern resident killer whale, they must 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 killer whales have moved to at least 400 yards away from the vessels.

8g

4. Automatic identification system (AIS) requirements should be included as a component of the rules in at least one of the alternatives, not left to the separate “mitigation measure” category.

It is unclear why AIS is listed as a “mitigation measure” rather than as one of the rules. AIS requirements were proposed by multiple Advisory Committee members throughout the process, from the beginning, and in SEPA scoping comments. The legislation specifically allows WDFW to consider requiring AIS as part of the rules,² and therefore it falls squarely within the scope of what can be mandated in the rule-making process. It is also contemplated in the proposed rules issued by WDFW.

8h

Requested change: Inclusion of the AIS requirement as a component of the rules in Alternatives 1 and 2.

¹ Or perhaps not—either way, the benefits would be minimal, as it only cuts viewing days from 7 to 6 days per week.

² RCW 77.66.620: “The department may consider the use of an automatic identification system to enable effective monitoring and compliance.”

5. Reporting requirements should include reporting to the WhaleReport Alert System (WRAS) in each alternative.

Reporting to the WRAS was listed as a potential mitigation measure, but it should be part of the reporting requirements in each alternative. This is something that has been actively discussed by the Advisory Committee, included in an Advisory Committee proposal, and considered by WDFW in the draft rulemaking. It should also be clear that this reporting should be done in real time.

8i

It will still be important to include reporting directly to WDFW, as the Pacific Whale Watch Association does not currently allow its sightings data in WRAS to be shared with WDFW.

Requested edits to Alternative 1:

*“Reporting: CWW operators would be required to **immediately** report on the presence and location of SRKW to **the WhaleReport Alert System** and WDFW Enforcement. **They may also be required to** and/or provide documentation of their observations of SRKWs, such as logs of SRKW sightings, viewing, and other on-the-water observations.”*

6. Alternative 3 is not meaningfully different from Alternative 4 (status quo).

Alternative 3 allows 5-10 commercial whale-watching vessels (one to two times the current average), 46-60 minutes of viewing time (similar to current PWWA voluntary guidelines), and it restricts viewing hours only by eliminating those when operators do not typically offer tours (e.g., 1-2 hours after sunrise, which is very early in the summers). It only reduces viewing by one day per week and for 1-3 unspecified months, which means those restrictions could occur in the winter months when whale-watching operators are not typically offering tours.

Requested change: Alternative 3 should be more different from the status quo. It should also specify whether the restricted months encompass the summer or allow full viewing in the summer, or at least explicitly note that the benefits to the whales will depend on which months carry restrictions.

7. The methodology used for calculating the percent reduction in viewing days is flawed.

The results of this calculation³ are meaningless, since the methodology does not consider which months would carry restrictions, nor does it consider overlaps with either the typical southern resident presence in the inland waters or the peak whale-watching season. If the restricted months are the winter months, when the southern residents are less likely to be in the inland waters and the commercial whale-watching operators are unlikely to be offering tours, the actual

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³ E.g., page 23: “Under Alternative 1, SRKW viewing days are reduced by at least 71% per week and hours of the day are reduced by at least 55% compared to when most CWW currently occurs.”

number of viewing days would be unlikely to decrease at all, in practice. The alternatives must be more specific in recognizing the relative impacts of restrictions in different seasons, given seasonal trends in southern resident orca presence and commercial whale-watching activity.

Suggested edits:

On page 23:

“Under Alternative 1, SRKW viewing days are reduced by at least 71% per week and hours of the day are reduced by at least 55% compared to when most CWW currently occurs, **assuming restrictions are in place during the peak whale-watching season or year-round.**”

8k

On page 25:

“Under Alternative 2, the number of operational days is reduced by 28% to 57% and the hours per day is reduced by 11% to 55% (assuming a nine-hour viewing time **and that restrictions are in place during the peak whale-watching season.**)”

8l

And similar edits in other places that discuss reduction in SRKW viewing days.

8. The precautionary principle should be a guide.

The section on uncertainty on page 21 should note what the WSAS science panel concluded about treating every interaction as an opportunity for disturbance. While this concept was noted in a different section on page 22, it left out any reference to the precautionary principle.

Requested edit: In the uncertainty section on page 21, include the specific language from the Science Panel’s report, *Summary of Key Research Findings about Underwater Noise and Vessel Disturbance* (page 4):

8m

“Given the fragile condition of the SRKW population, however, the committee considers the precautionary approach to management of known stressors to be justified. According to the principle, when an activity threatens harm then measures should be taken—even if certain cause-and-effect relationships are not fully established scientifically. The committee suggests defining every interaction with an SRKW as an opportunity to disturb a whale.”

9. The DEIS should not be considering the recreation opportunities provided by commercial whale-watching operations.

Justifying rules through a lens of recreation opportunities was not part of the legislative mandate. Furthermore, there are many recreational opportunities to view the orcas from shore. There are also plentiful recreational opportunities to view the transient orcas and other marine mammals on commercial whale-watching tours.

8n

Requested edits: Remove discussion and analysis of the impacts to recreators and recreational opportunities on pages iii, x, 1, 21, 30, 31, 33, and 32.

10. The DEIS lacks basic information about the southern resident orca population.

In the section called “Life History, Habitat, and Conservation Status of SRKWs,” the DEIS fails to address the current dynamics of this fragile population, which is extremely important when evaluating the environmental impacts of the various alternatives being considered.

80

The number of females is more indicative of the population’s status and trend. At present, there are 38 females, including eight that are post-reproductive, 23 that are reproductively capable (down from 30 in 2011), and 7 that are immature (down from 15 in 1998). In the past 10 years (i.e., from January 2010 to now), only five females have been born and are still alive. Since 2015, only two calves have been born and are still alive, one a female. Of the 61 calves born since 1988, 14 (23%) died before reaching six months of age.

Greater detail is also needed about the southern resident orcas’ habitat use, key foraging areas, and prey. The brief statement in the DEIS that “SRKW eat fish and have a strong preference for Chinook salmon because of their large size and rich lipid content” is insufficient. It does not make it clear that southern resident orcas *only* consume salmon. In fact, 80% of their diet consists of scarce Chinook salmon from the Salish Sea and Columbia River basin. The remaining 20% of their diet is heavy on chum and coho salmon.

Greater explanation is needed to explain how southern resident orcas locate their prey via echolocation and share food with pod members, and how their ability to forage using echolocation is impacted by vessel noise, disturbance, and presence. Southern resident orcas depend on echolocation to locate and catch salmon and need quieter waters to achieve this. Even without noise, vessel disturbance affects the orcas in ways that increase their energy expenditure and reduce their ability to forage; orcas have a stronger avoidance response when boats approach more closely.

The DEIS is seriously deficient in presenting the best available science around the impacts of vessel noise and disturbance on orcas. Factors affecting whales include the number of vessels, speed, distance, and type of vessels. The WSAS science panel reports cite numerous studies on the direct impacts and short-term behavioral changes affecting orcas from the presence and noise of vessels. It is necessary to present this information in the DEIS in order to evaluate and analyze the direct and indirect effects of each alternative.

The DEIS needs to provide population trends in the last sub section (“SRKW Conservation Status and Threats”) to encompass the last two decades since the species was listed as endangered. The DEIS only references the years between 1996-2001 in which the population declined 20% from 97 to 78 individuals.

Requested edits:

- Add the population numbers from 2001 to 2020.

- Use information from pages 6-8 of WSAS’s *Summary of Key Research Findings about Underwater Noise and Vessel Disturbance* report from August 2020 to add basic biological information to the DEIS.
- Incorporate more of the scientific references and information on vessel effects from WSAS’s *Summary of Key Research Findings about Underwater Noise and Vessel Disturbance* report from August 2020 (pages 10-14).

8p

11. Corrections needed to cross-references (Figure 4 and Figure 5).

The DEIS describes “SKRW viewing limitations to specific hours of the day, number of days per week, and/or season” for Alternative 2 and incorrectly makes a reference to see Figure 4 on page 25 which is a map of the voluntary no-go zone off the west side of San Juan Island. Figure 3, “Average Number of Vessels by Time of Day,” is the correct figure to reference in this section.

The DEIS incorrectly makes reference to Figure 5 on page 12 as the map of the voluntary no-go zone. Figure 5 does not exist in the document. The correct reference is Figure 4.

12. The “Overview of Whale Watching in Washington” section lacks sufficient information.

On page 16, the DEIS describes the Whale Museum’s Soundwatch Boater Education Program efforts to document various metrics during the whale-watching high season and the recreational boating season. Soundwatch’s annual report documents “metrics such as number and types of vessels around whales, time with orcas, and number of incidents during those five months.” Without reading Soundwatch reports it is unclear to the reader what the definition of “incident” is and how it correlates to commercial whale watching operators’ practices on the water when around southern resident orcas. Commercial whale-watching operators are responsible for some of those violations or “incidents”; the 2019 Soundwatch report attributed 10% of all “incidents” to eco-tour operators/commercial whale watch operators and found that the number of incidents by both recreational boaters and eco-tour operators was two to three times greater without WDFW law enforcement on the scene.

More information about the commercial whale-watching industry should be included in the DEIS. The southern resident orcas have been the focus of vessel-based whale-watching since 1976. Growth of the industry was spurred by increasing public interest in the iconic mammals, and by the relative ease of becoming a commercial operator. The industry has been unregulated except by federal distance regulations and state distance and speed regulations that also apply to recreational boaters. The industry grew rapidly over the last two decades, from less than 30 boats in 1996 to more than 120 vessels in 2018. In 2019, 55 total whale watch companies offered whale watching trips from 100 ‘active’ vessels in the U.S. and Canadian Haro Strait region and 18 ‘occasional’ vessels and 20 ‘rare’ vessels ([Soundwatch 2019](#)).

Requested edits:

- Define “incident” per the Soundwatch report, and state the percentages of incidents documented from eco-tour (commercial whale-watching) operators, recreational boaters, and other users.
- Include additional information about the growth of the commercial whale-watching industry in Washington state using the economic viability report.

In conclusion, we support a sustainable whale-watching industry. Whale-watching and the education that goes with those experiences can directly increase public support for conservation. Whale-watching is also important to the local and state economy. Fortunately, other marine mammal species are commonly seen and provide solid viewing opportunities to support ongoing tours and education. As noted in the DEIS, whale-watching ridership *increased* in Canada in 2019 with new restrictions in place, and US revenue of Pacific Whale Watch Association members increased since 2011 after new federal regulations were promulgated. Protecting the highly endangered population of southern resident orcas will be beneficial not only for the whales themselves but also for the local economy and the long-term economic viability of license holders. The DEIS should provide a stronger basis for that decision-making.

Thank you for considering our comments.

Sincerely,

Rein Attemann
Puget Sound Campaign Manager
Washington Environmental Council

Kathleen S. Gobush, PhD
Director, Northwest Program
Defenders of Wildlife

Lovel Pratt
Marine Protection and Policy Director
Friends of the San Juans

Chris Connolly
Pacific Northwest Field Representative
The Endangered Species Coalition

Donna Sandstrom
Executive Director
The Whale Trail

Darlene Schanfald
Secretary
Olympic Environmental Council

Nora Nickum
Ocean Policy Manager
Seattle Aquarium

Sophia Ressler
Washington Wildlife Advocate/Staff
Attorney
The Center for Biological Diversity

Pacific Whale Watch Association

October 22, 2020

Julie Watson
Nathan Pamplin

The Pacific Whale Watch Association (PWWA) has experienced countless challenges in 2020, with COVID-19 reducing business opportunity by 70 to 90 percent. Upon review of the SEPA Environmental Impact Study for the creation of a commercial whale watch license, the PWWA foresees ongoing economic hardship and job losses should the majority of these measures become final rules.

When it was passed last year, Senate Bill 5577 stated, “*The department must adopt rules for holders of a commercial whale watching license [...] for the viewing of southern resident orca whales for the inland waters of Washington by January 1, 2021. 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.*” It is our firm position that the proposed actions in the EIS fail to meet these criteria, both bringing about potential harm to whales and certain financial harm to our industry.

After participating in the commercial whale watching licensing process in good faith, we were shocked to see that the recently-released EIS not only proposed limitations on the number of hours, days, and months that license holders can view Southern Resident killer whales, but also proposes limitations on the number of hours, days, and months that license holders can operate. These restrictions on the viewing of the region's thriving populations of other whales, such as Bigg's killer whales and humpback whales, would be crippling to the many small business owners that comprise the Pacific Whale Watch Association.

9a

Alternative 1 would restrict the commercial viewing of all whales to just 0-2 days per week, 0 to 4 hours per day for an 8 to 11-month period with additional restrictions for Southern Resident killer whales for an 8 to 12-month period. The EIS states that this will reduce commercial whale watching opportunities by 71 to 100 percent.

Alternative 2 would restrict the commercial viewing of all whales to 3 to 5 days per week, 4 to 8 hours per day for a 4 to 7-month period with additional restrictions on SRKW for a 4 to 7-month period. The EIS states that this will reduce commercial whale watching opportunities by 29 to 57 percent.

Alternative 3 would restrict the commercial viewing of all whales to 6 days per week, from 1-2 hours after sunrise to 1-2 hours before sunset, during a 1 to 3-month window with additional restrictions on viewing Southern Resident killer whales for a 1 to 3-month window. The EIS states that this will reduce commercial whale watching opportunities by 14 percent. We feel that this number is an underestimation, as during the peak season, several companies offer

9b

afternoon tours that would terminate later than 2 hours prior to sunset. If viewing of all whales must end 2 hours before sunset, this would prohibit many companies from operating their later tours. The report states that these later tours represent "a small portion of current commercial whale watching activity", but we dispute this statement, and in some instances, these afternoon/early evening tours comprise up to 50% of an operator's peak season tour offerings.

Industrial Economics, Inc. originally prepared their Economic Viability of Commercial Whale Watching License Holders analysis without consulting the commercial whale watching community. After publishing their initial analysis, members of the Pacific Whale Watch Association voiced concerns with the findings, which greatly overestimated average ticket price, annual profits, and the percentage of ridership equivalent to profits. Industrial Economics, Inc. then collaborated with one mainland PWWA business owner and revised their findings based on more accurate information. In their final report, Industrial Economics, Inc. declared that "*reduced ridership of 14 to 27 percent may raise viability concerns related to these businesses as compared to a reduction of 20 to 50 percent in ridership described in the draft analysis*" and "*a reduction in ridership of 14 to 27 percent may constitute an economic viability threat.*"

We feel that if more efforts were made initially to consult with all PWWA business owners, taking into account their specific operating seasons, daily schedules, and tour logistics, these numbers would show that an even smaller decrease in ridership would be concerning. Even so, using the report's final threshold of 14 to 27 percent reduction in ridership as constituting an economic viability threat, WDFW should disqualify Alternative 1, Alternative 2, and Alternative 3. The only option that does not cause undue economic hardship on commercial whale watch license holders is Alternative 4 - no action.

In addition to the grave concerns PWWA members share about the potential harm to our livelihoods, these date and time restrictions not only hurt commercial whale watching license holders economically, but they remove experienced professional sentinels from the water around not just Southern Resident killer whales, but around all types of whales that inhabit Washington waters. This leaves Bigg's killer whales, humpback whales, minke whales, and gray whales also vulnerable to vessels unaware of the whales' presence or how to operate safely around them. Both Soundwatch and WDFW enforcement officers have stated that private vessels behave more safely around whales when commercial whale watch operators are present. PWWA operators also provide valuable on-the-water education and outreach, contribute critical observations to local researchers, and are often the first to alert cargo ships, ferries, and military vessels of whales in the vicinity so that they can alter course and speed.

The PWWA has long held the reputation of being the most responsible and proactive group of whale watching operators in the world, and moving forward in this licensing process, we will continue to offer solutions that promote sustainable whale watching, protecting both whales and the passionate crew members that have professionally dedicated their lives to those whales.

Based on extensive knowledge and experience, and after consultation with several of the region's most respected orca scientists, the PWWA proposed the following straight-forward, enforceable recommendations during the licensing process to help WDFW meet their goals:

- Limit of five commercial license holders at the 300-yard statutory distance from a group Southern Resident killer whales at any one time
- 45-minute limit with Southern Residents per license holder per tour
- License holders must fly the Whale Warning Flag while viewing Southern Residents
- West side of San Juan Island zone closure when Southern Residents are present
- Reporting to WDFW of Southern Resident presence and commercial whale watch operator sentinel actions.

We urge you to adopt this rule framework brought forward by the PWWA and supported by those in the research and science community. In doing so, the state will provide additional protections for Southern Resident killer whales while acknowledging the already high standards of our state's whale and wildlife tour industry, supporting thousands of hardworking employees that are both directly and indirectly tied to the commercial whale watching community in the process.

Many members of the science, education, and whale advocacy communities share our concerns with the EIS's proposed alternatives. We look forward to conversations with you and members of the Fish and Wildlife Commission, and ask that your office assist us in facilitating these conversations as soon as practical.

Jeff Friedman
President
Pacific Whale Watch Association



CENTER for BIOLOGICAL DIVERSITY

Because life is good.

Washington State Department of Fish and Wildlife
 Attn: Lisa Wood, SEPA/NEPA Coordinator
 P.O. Box 43200
 Olympia, WA 98504

October 23, 2020

RE: Draft Programmatic Environmental Impact Statement for the Establishment of a Commercial Whale Watching Licensing Program

Dear Ms. Wood,

The following comments on the Draft Environmental Impact Statement (“DEIS”) for the commercial whale watching (“CWW”) license program are submitted on behalf of the Center for Biological Diversity (“Center”). The Center is a nonprofit membership organization with over 1.7 million members and supporters working to protect endangered species and their habitats worldwide. The Center has worked to protect the Southern Resident killer whale (“SRKW” or “Southern Residents”) for over a decade. We filed the original listing petition to get the whales protected under the federal Endangered Species Act. The Center and our 40,000 members, supporters and activists who live in the state of Washington are deeply invested in the continued protection and restoration of the SRKW population.

Despite the protections afforded to the Southern Residents both federally and by the state of Washington, the whales are in danger of imminent extinction. The population is the lowest it has been in 40 years and the whales are dealing with an onslaught of issues effecting their survival – lack of prey availability, impacts of toxic contamination and the effects of vessel noise and disturbance. In acknowledgement of this plight, the legislature required the Washington Department of Fish and Wildlife (“Department”) to undertake a process to license commercial whale watching vessels to further protect the SRKWs from vessel noise and disturbance. This process includes a rulemaking and environmental analysis pursuant to the State Environmental Policy Act (“SEPA”).

The Center is appreciative of all the work the Department has done throughout this process to protect the Southern Residents. However, the DEIS is seriously concerning in several respects and further analysis and changes are necessary to properly examine how alternatives under this program will affect the whales. The DEIS must be based on best available science. The necessary changes and our comments on the DEIS are outlined below.

- The entire DEIS is based on a flawed and unproven assumption that there will be negative economic affects to the CWW industry. Throughout the DEIS it is assumed that the less opportunity CWW vessels have to view the SRKWs the less revenue they will make. However, this is not supported by the economic analysis. In fact, the economic analysis done on this program shows that when commercial whale watching vessels in Canada agreed to stop watching the SRKWs their revenue increased. The analysis further shows that after stricter federal regulations were implemented in 2011 the industry’s revenue continued to increase. Basing the DEIS on the false assumption of economic loss misconstrues the economic analysis. The DEIS must be changed to reflect that there is no certainty that stopping watching the SRKWs would have any impact on CWW revenue and may, in fact, increase whale watching revenue.

10a

- The DEIS consistently refers to the “sentinel role” that CWW vessels may play by protecting the SRKWs from recreational boaters while failing to consider the potential that CWW vessels might actually be the ones attracting recreational boaters. The Washington State Academy of Science (“WSAS”) panel concluded that there are no studies supporting the sentinel role that the CWW industry anecdotally totes in all of their messaging. However, the DEIS considers this role in several places in the document. The DEIS fails to consider the alternative, that the presence of CWW vessels may actually attract more recreational boaters by alerting them to the presence of whales. Because there is no science to support the sentinel role it should not be a consideration in the DEIS, but if it remains in the final EIS, the converse must also be considered.

10b
- On page 19 of the DEIS a year-round moratorium on CWW vessels viewing SRKWs is summarily dismissed as “not feasible” without any explanation as to why this is the case. The DEIS must further expound on the feasibility of such an option and how that determination was reached.

10c
- The DEIS misrepresents the purpose of this rulemaking process. The legislation mandating this program requires the rules to “effectively reduce the daily and cumulative impacts on southern resident orcas and consider the economic viability of license holders.” On page vi of the executive summary of the DEIS this purpose is misconstrued, stating “[t]he purpose of establishing regulations for licensing commercial whale watching vessels is to ensure sustainable commercial whale watching policies that reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident killer whales.” This wording appears to put more emphasis on whale watching rather than protection of the SRKWs and does not properly reflect the legislative directive. This must be changed to reflect the wording of the legislation and establish the proper considerations the program is meant to address.

10d
- The DEIS should not consider recreational opportunities provided by CWW operations. The DEIS includes multiple references to the impact on recreators and recreational opportunities (DEIS pgs. iii, x, 1, 21, 30-33). The legislative mandate did not contain any requirements to justify rules through the lens of recreational opportunity. Additionally, the DEIS fails to consider the plentiful recreational opportunities to view the SRKWs from shore, or to view transient orcas and other marine mammals from CWW vessels. All discussion and analysis on the impacts to recreators and recreational opportunities must be removed from the DEIS.
- The alternatives considered in the DEIS are not specific or tangible enough to support proper decision making or informed public comment. The alternatives contained in the DEIS include overly broad ranges for both number of vessels and months where CWW viewing of the SRKWs are allowed. The DEIS fails to specify which months would carry the restrictions and whether the restrictions would overlap with peak whale watching months. The DEIS also fails to specify when requirements for kayaks and other non-motorized CWW vessels would apply. The alternatives need to be redrafted to specifically consider number of boats around the whales and the exact months that would be covered by the rules for both motorized and non-motorized CWW vessels.

10e
- The DEIS includes an inadequate “most restrictive” alternative. Alternative 1 currently includes a range of 0-2 boats. The DEIS should include an alternative that clearly states zero CWW motorized whale watching boats watching of the SRKWs to properly consider the precautionary principle as recommended by the WSAS panel.

10f
- Alternatives 3 and 4 (status quo) are not sufficiently different. The number of boats, amount of time and viewing hours in alternative 3 are essentially the current Pacific Whale Watch

Association practices. Alternative 3 also only reduces viewing time by one day per week and again fails to specify which 1-3 months the restrictions would be in place. If the restrictions in these alternatives only occurred during winter months when whale watching operators are not typically conducting tours alternative 3 would have no impact on the SRKWs. The DEIS should be changed to specify which months restrictions would apply and number of vessels, viewing time and hours should be changed to meaningfully distinguish alternative 3 from the status quo.

10g

- The methodology used in the DEIS for calculating the percent reduction in viewing days is fundamentally flawed. Because the DEIS fails to specify which months would have restrictions, does not consider typical SRKW presence in inland waters or seasonality of whale watching tours the calculations have no way of accurately reflecting the percent decrease in viewing days. The DEIS must be edited to provide this specificity and these numbers must be recalculated to properly reflect these changes.
- The DEIS fails to consider automatic identification systems (“AIS”) as a component of the rules in any of the alternatives. Instead, the DEIS considers AIS as a completely separate category of “mitigation measures.” Both the legislature, the CWW licensing advisory committee convened by the Department and SEPA scoping comments considered the potential of AIS as part of the rules. The alternatives must be changed to reflect this and AIS should be required as a component of alternatives 1 and 2.
- Similarly, reporting requirements to the Whale Report Alert System (“WRAS”) should be included in each of the alternatives. These reporting requirements are currently in the DEIS as potential mitigation measures, but are not included as a component of any of the alternatives. These reporting requirements were discussed by the advisory committee and considered in the Department’s draft rule and the DEIS should reflect this by including a requirement to report to the WRAS system and share that information with the Department in each of the alternatives.
- The DEIS must clearly reflect the recommendation of the WSAS panel to use the precautionary principle as a guide. The WSAS panel justified this decision in their findings with the understanding that every interaction with the SRKWs should be treated as a potential disturbance. Nowhere does the DEIS reflect this recommendation and edits must be made to the uncertainty section (pg. 21) of the DEIS to reflect the recommendation to use the precautionary approach.

10h

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The program being established by the Department is a vital step in protecting the endangered population of Southern Residents. These rules and the reduction of vessel noise and disturbance will ensure the continued existence of the population as well the long-term economic viability of license holders. The DEIS must be changed to reflect the above comments and provide a stronger basis for the decision-making related to the environmental analysis and the pursuant rules.

Sincerely,



Sophia Ressler
Washington Wildlife Advocate/Staff Attorney
The Center for Biological Diversity

October 21, 2020

Julie Watson
Washington Department of Fish and Wildlife

To Julie,

I am writing this letter on behalf of myself and my colleagues—marine naturalists who work here in Washington State and British Columbia, and more specifically on the waters of the inland Salish Sea. We have read your proposal on commercial vessel regulations in regards to Southern Resident killer whales and we have serious concerns about the ramifications of the proposed regulations. As the body of people who spend more time educating about, advocating for, and protecting the Southern Residents than anyone else on the water, we foresee that your proposed regulations will not help the whales but will, in fact, harm them.

The naturalists here come from a wide variety of backgrounds but we all share one common purpose—to protect the Southern Resident killer whales through every possible avenue at our disposal. Many of us have given up jobs, relationships, and more to dedicate ourselves to the Southern Resident killer whales and to the Salish Sea. We spend our days cold, tired, and hungry but elated when we can connect people to the whales we know better than we know many of the people in our lives. We don't do this for the money, we don't do this to profit off of the whales, though some individuals and organizations would have you believe we do. Most of us have been doing this for years, or even decades, and we have seen the politics play out to the detriment of these whales time and time again. Decision makers listen to the loudest voices instead of the most knowledgeable ones. Science and fact are disregarded in favor of trying to appease fringe groups who never intended to compromise in the first place. These groups have repeatedly shown through their words and actions that they are more concerned with hurting the “other side” than with helping the whales.

That is what is happening now. Again. We spoke up before and no one listened. We have argued for these whales from the beginning and after 15 years of them being on the endangered species list we continue to witness the decline of both the whales themselves and the salmon they rely on. Now, we say again: Responsible, commercial operators are not the problem. They continue to be the scapegoat and “fixing” them will not help the whales but will harm them.

So let us be frank; the draft proposal you have put out is irresponsible.

Limiting the commercial operators to three months a year, four hours a day, is not only ineffective but negligent. There are many reasons your organization should be working in conjunction with us. Instead of further regulating the only group who has willingly compromised and continued to update their own best practices in accordance with the

best available science, you should be partnering with us. The rules, as they have been proposed, will be difficult—if not impossible—to enforce and will remove the most knowledgeable, practiced, and responsible boats from the scene.

Throughout this process the Pacific Whale Watch Association and its members have worked to find the middle ground you wanted, with no matching attempt by the other members of your panel.

First, and perhaps most importantly, we are sentinels on the water. Personally, I have spent more than half of my time flagging down and contacting recreational vessels that have no idea, a) that whales were present in the area, and/or b) what the regulations are in regards to speed and distance. Even when your enforcement officers are present we are still just as busy in contacting private boaters, due in large part the sheer volume of their presence. There are not enough enforcement officers and operators to contact them all, but we help in a significant way. Without us there I guarantee you will see an increase in disturbances to the whales both at high speeds and in too close of proximity. Or worse, you won't see it at all because although many private boaters and commercial fishing vessels will fail to operate in whale-safe manners, there won't be anyone around to witness, report, or even know what transgressions have occurred. Having responsible operators on scene alerts boaters and provides proper examples of etiquette around the whales.

Not only do we alert recreational boaters to the presence of whales and how to best operate, we are also the people alerting both the US and Canadian navies to the presence of whales in active exercise areas. When you remove us from the water you lose the most devoted and credible watch dog. These vessels won't stop because we say "the whales were headed your way at 3:59PM but we don't know where they are now". They do listen when we say "you have whales within 2 nautical miles of you and they are heading your way now from this location."

Second, with as much time as we spend with the whales we know them well. Arguably better than anyone, short of the researchers that have been out here for decades. We can identify these whales, some of us by sight alone, and we have spent enough time to recognize behaviors, conditions, and the presence of new whales or absence of expected ones. This year it was thanks to marine naturalists on PWWA boats that researchers were alerted to the birth of both new J-pod calves, J57 and J58, to the sex of J57, and on numerous occasions the location, speed, and direction of the whales so researchers could get on scene to collect data. We are experienced and knowledgeable eyes on the water. By denying us the right to view these whales at safe distances, you remove our ability to coordinate with researchers and enforcement to better understand, advocate for, and protect these whales.

Perhaps the one job people think of when they think of naturalists is the one I mention third: public education. Both on shore and on the water, we have direct contact with people that live here in Washington State and with people who have traveled across the world to connect to the whales that made them care about whales to begin with.

Knowledge connects people to wildlife. There is perhaps no better way to advocate for these whales than to educate people and give them a voice. You can simply look at this process and see that the loudest voices make the biggest impact. It's our duty to do everything we can to make sure they're educated ones because we can see that's not always the case. In connecting people with these whales we create advocates for them and we take great pride and heart in being well-informed, knowledgeable, and fair in what we pass on to those who join us on the water so they can speak with that knowledge.

More times than I can count I have watched a passion come to life in the eyes of passengers—from the very young to the very old—when they see these whales for the first time. When they can look at a whale and see an individual and know their life history. We as naturalists are able to spark that connection between people and the whales. We as naturalists can guide their gaze to a whale and tell them we call her Tahlequah and that she has reminded us to persevere in the face of adversity. In the span of two years, she lost her sister, her mother, her nephew. She carried the body of her newborn daughter for 17 days and showed us that we are all responsible for speaking up for them, in whatever way we can. She has now become a mother again to a healthy baby boy. We know that because of our presence on the water. We know that because of naturalists. And every time we are out on the water we tell her story and the countless stories of her community and we speak up because it's not the absence of boats that's going to keep her alive or keep her sons alive.

We recognize that you are compelled to do something for these whales but the two options you proposed are bad options. These whales need better. They most certainly deserve better.

From a group of people with a whole lot of knowledge, experience, and heart let us tell you that you must find a better way because this is only going to make things worse.

Sincerely,

Sara Hysong-Shimazu

On behalf of the marine naturalists listed below:

Erin Johns Gless

Pete Ancich

Alissa Elderkin

Michael Colahan

James Mead Maya

Traci Walter
Val Shore
Marcie Callewaert
Jess Plier
Matt Plier
John Boyd
Jill Hein
Tyler McKeen
Elizabeth Sawyer
Tyson Reed
Andy Scheffler
Brooke McKinley
Gary Sutton
Nan Yates Simpson
Daven Hafey
Olivia Esqueda
Taylor Spesak
Ken Rea
Alan Niles
Braunti Cobb
Scott Jacobson
Matt Stolmcier
Andrew David
Scanie Malcolm
Suc Davics
Sara Jenkins
Martha Mills
Debbi Fincher
Brittany Hendricks

Chris Mick Miller
Mika Ogilvie
Leah Vanderwiel
Alison Engle
Valerie Messier
Megan Halliwell-Davies
Rachel Rodell
Bergen Amundson
Taylor Rose Chapdelaine
Trev Neufeld
Ashley Keegan
Lili Wilson
Katie Jones
Nan Yates Simpson
Brett David Soberg
Bonnie Gretz
Alethea Leddy
Maia McLellan
David Scott
Rachael Dana Merrett
Aubrey Diehl
April Ryan
Piper Bishop
Julie Woodruff
Ariel Yseth
Kathryn Sahara Taylor
Sam Murphy
Meaghan McDonald
Suc Davics

Transmitted Electronically



Northwest Animal Rights Network
1037 NE 65th ST #174
Seattle, WA 98115

Rulemaking Coordinator
Cc: Fish and Wildlife Commission
Washington Department of Fish and Wildlife
PO Box 43200
Olympia, WA 98504

The Northwest Animal Rights Network is a Seattle based animal advocacy organization with more than 5k members all across Washington. Our mission is *to advocate for the rights of all sentient beings—the right to choose, to be free from oppression and exploitation—by pursuing campaigns, facilitating education, and connecting Pacific Northwest organizations.*

Thank you for the opportunity to comment on Washington Department of Fish and Wildlife (WDFW)’s Commercial Whale Watching State Environmental Policy Act Draft Environmental Impact Statement. NARN recognizes that the largest threat to the endangered Southern Resident Killer Whale (SRKW) population is the lack of prey availability and as such NARN has been an advocate for the removal of the lower Snake River dams, but that can not happen quickly enough. Vessels, including commercial whale-watching vessels, create noise and disturbance that can elicit behavioral disruptions such as reduced foraging behaviors, changes in swimming patterns, increased surface-active behaviors and, along with other stressors, this can threaten their viability in Washington waters.

NARN’s members supported Senate Bill 5577, however this draft has missed the mark in major ways:

- 1) The Executive Summary of the draft states the purpose of establishing regulations for licensing commercial whale watching vessels is to ***“ensure sustainable commercial whale watching practices that reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident Killer Whales (SRKWs or Southern Residents).”*** This is an impossible claim and needs an urgent correction.
 - a) The purpose of establishing regulations for licensing commercial whale watching vessels is ***“to ensure that commercial whale watching practices do not contribute to the already vast disturbances on the endangered SRKWs.”*** Please correct the Executive summary to list the protection of whales as priority.
 - b) There is zero science that demonstrates whale watching practices have potential to reduce impacts of disturbance on orcas. It’s widely known the primary threat to this population of Orca is the inability to find sufficient food. Habitat disturbance and underwater noise from marine activities,

12a

vessels, ships and boats in the Salish Sea make it difficult for orcas to use echolocation, which helps them find and hunt salmon. Right now, underwater noise is projected to grow significantly in coming years as the Port of Vancouver expands and proposed shipping projects get approved. Toxic contaminants from vessels in the water also affect the food supply and overall health of orcas. The Department needs to seek out and include peer reviewed studies about effects that commercial whale watching has on long-term recovery efforts for the endangered SRKW population before providing further opportunities for commercial operations.

- 2) The four Alternatives presented do not include an Alternative that calls for limiting all commercial whaling watching and other disturbances to protect the endangered Southern Resident Killer Whale population. The most limiting Alternative provided- Alternative 1- still includes the allowance and permittance of practices that actively harm the endangered SRKW population recovery.

12b

This draft should include an Alternative 0 which limits all commercial whaling watching of the endangered SRKW pods. Land based viewing of SRKWs is the best alternative until the endangered population is at a stable recovery level.

- 3) The commercial whale watching industry of the Pacific Northwest is not contingent upon watching the endangered SRKWs at close range. Because of this, and the goals of this Draft EIS, any chosen Alternative should include the following suggested mandates:
- a) mandate that rulemaking must allow for future evaluation, re-assessment and remain open to the potential of future rulemaking reversals if the endangered SRKW population shows any correlated signs of distress.
 - b) mandate a number of commercial whale watching limitations with the goal of long-term endangered SRKW population recovery:
 - limit of the number of operators that may view the SRKWs at one time,
 - limit of the duration of whale interaction,
 - limit the viewing season to not interfere with peak migration and feeding
 - create exclusion areas / disturbance free waters for SRKW to forage freely
 - make it unlawful to enter the vicinity of pods with foraging SRKWs, pods with new calves or struggling pod members who are most susceptible to vessel strikes.
 - c) mandate endangered SRKW education information on all commercial whale watching vessels.
 - d) mandate AIS on all commercial whale watching vessels to increase enforcement potential.
 - e) mandate reporting requirements to ensure citizen science and accountability are the baseline in all commercial whale watching trips.
 - f) prohibit the use of sonar or echolocation devices to track any member of the SRKW population.

Historically these whales have lived and rested among Seattle and due to commercial whale watching and other disturbances, can no longer safely forage here and are starving. WDFW needs to focus on finding ways to reduce daily and cumulative impacts for the endangered SRKWs. These whales do not have time and Washington wants a recovered native orca population now. Please create an alternative which adequately protects the endangered Southern Resident Killer Whales.

Over 700 members sent in this letter.

-- Sent from **Dave Pierot** to **WDFW Washington Department of Fish and Wildlife** on
Oct 19, 2020 --

Dear WDFW,

Thank you for the opportunity to provide comments on the draft environmental impact statement (DEIS) for the Commercial Whale Watching Licensing Program.

The DEIS does little to support the intent of the legislation that directs Washington Department of Fish and Wildlife to develop a commercial whale-watching license program that "must effectively reduce the daily and cumulative impacts on southern resident orcas and consider the economic viability of license holders." The rules must be based on the best available science and apply the precautionary principle, given the crisis facing this highly endangered species and the opportunity to quickly address the threat of noise and disturbance while continuing to work on other threats.

The DEIS has numerous shortcomings and fails to incorporate the best available science in analyzing the environmental impacts of vessel noise and disturbance from commercial whale watch vessels on the Southern resident orca population. The precautionary principle should be a guide to the DEIS but it is not. Given the precarious status of this fragile population, every interaction from commercial whale watch operators with Southern Resident orcas should be treated as an opportunity for disturbance.

In short;

1. The alternatives laid out in this DEIS are not sufficiently clear, specific, or concrete to support good decision-making or allow for adequately informed public comments.
2. The "most restrictive" alternative is flawed. There should be an alternative that clearly states 0 motorized commercial whale-watching boats in the vicinity of southern resident orcas (at least 0.5 nautical miles) for the full year. That would be most precautionary and protective. 13a
3. Alternative 3 is not meaningfully different from Alternative 4 (status quo). Alternative 3 should be more different from the status quo alternative.
4. The methodology used for calculating the percent reduction in viewing days is flawed. The results of this calculation are meaningless, since the methodology does not consider which months would carry restrictions, nor does it consider overlaps with either the typical southern resident presence in the inland waters or the peak whale-watching season. If the restricted months were the winter months, when the southern residents are less likely to be in the inland waters and the commercial whale-watching operators are unlikely to be offering tours, the actual number of viewing days would be unlikely to decrease at all, in practice. The alternatives must be more specific of the relative impacts of restrictions in different seasons, given seasonal trends in southern resident 13b

orca presence and commercial whale-watching activity.

5. The DEIS lacks basic biological information about the southern resident orca population and full discussion of the best available science around vessel noise and disturbance on orcas. Factors affecting whales include the number of vessels, speed, distance and type of vessels. The Washington State Academy Science panel documents and reports numerous studies on the direct impacts and short-term behavioral changes affecting orcas from the presence and noise of vessels. It is necessary to present this information in the DEIS in order to evaluate and analyze the direct and indirect effects from each alternative.

13c

6. It is out of the scope of the DEIS and not part of the legislative mandate to be considering the recreation opportunities provided by commercial whale-watching operations and impacts to "recreators". This should be removed in the Final EIS.

7. Reporting requirements should include reporting to the Whale Report Alert System (WRAS) component in each alternative and AIS should be included in Alternatives 1 and 2 and 3, not left to the "mitigation measure" category.

13d

I hope these issues will be fully addressed in the Final EIS.

Regards,
Dave Pierot





To: Washington Department of Fish and Wildlife
 Re: Comments on Commercial Whale Watching SEPA License Draft EIS

To whom it may concern,

These comments are submitted on behalf of Whale Scout, a 501(c)3 nonprofit in Washington State.

We are dedicated to the protection of PNW whales through land-based conservation experiences. One of our primary programs is land-based whale watching. We are in support of sustainable, responsible whale watching. Empowering and inspiring the public to preserve and advocate for these animals will aid in their recovery.

The commercial licensing process gives an opportunity to ensure whale watching in the state is being done in a controlled and is well managed, however it does not address the immense pressure being put on the whales by private boaters. Changes to commercial operations can have significant implications for private boater behavior which could be detrimental, including high speed incidents and strikes. The sentinel role the professional, commercial operators play on the water needs to be better understood prior to making significant changes. Any rules should be carefully studied before and after and adjusted as necessary. Additionally, other unintended consequences of putting additional pressure on other potentially sensitive groups of animals needs to be carefully considered.

14a

Ultimately, the regulations need to be made in regards to the foraging success for the whales and the ability for the rules to be understood, implemented, and enforced.

The DEIS presents a range of alternatives that we believe do not appropriately address the stated main purposes of the licensing program: to ensure sustainable commercial whale watching practices that reduce the daily and cumulative impacts of vessel noise and disturbance on the endangered Southern Resident Killer Whales.

Whale Scout would like to offer the following alternative. Commercial vessels will continue to follow Be Whale Wise/PWWA guidelines and additionally, would allow 3 - 5 commercial whale watching boats to be with SRKW or any other group or individual whale at a time. A restriction would be put in place on viewing SRKWs for half a day per week to allow for research to be conducted on boater behavior without the presence of commercial vessels. All commercial vessels must meet guidelines for quiet operation at slow whale watching speeds to be determined by scientists to not impact the foraging of SRKW. This alternative would reduce the potential risk of negative impacts on the SRKW by reducing the number of vessels present. It would protect against any shifts to larger, louder, vessels by controlling engine noise outputs.

This would allow the sentinel role to be in effect and also studied and would be protective of other whales in the area that are not the focus of this licensing process.

License holders must also provide educational information onboard their vessels and demonstrate responsible viewing records to renew/continue their license. Adaptive management should play a role in this process and licenses should be reviewed every three years.

Closing the westside of San Juan Island to professional whale watching while allowing private vessels including fishing vessels, does not make logical sense. Limiting the most experienced vessels from what's been described as a critical area for the whales while allowing inexperienced vessels and allowing activities that will remove prey from the whales is wrong. This is analogous to removing park rangers and naturalists from Yellowstone Park while allowing the public and groups of hunters to enter the park boundary and hoping for the best. This closure is fundamentally wrong as described in the proposed alternatives.

Finally, the naturalists and educators on the water who dedicate their time and passion advocating for these whales with the public need to be heard in this process. Their work has elevated the status of these whales which has led to immense public support. We cannot discount this work and cut it off at the knees. Recovering the whales will take all of us working together.

Whitney Neugebauer
Director, Whale Scout



San Juan Safaris & San Juan Island Outfitters
 10 Front St. Suite 102
 Friday Harbor, WA 98250

October 21, 2020

Julie Watson – Killer Whale Policy Lead, WDFW
 Nathan Pamplin – Policy Director, WDFW

**RE: Public Comment on the Draft Programmatic Environmental Impact Statement:
 Commercial Whale Watching Licensing Program**

San Juan Safaris & San Juan Outfitters have been offering whale watch tours in Washington waters since 1996. I have faced challenges over the past twenty years in business, but none more acute than the COVID-19 pandemic. The financial devastation caused by COVID-19 resulted in a loss of approximately (80%) of our annual revenue and the layoffs of many of our loyal staff. We are now faced with even more uncertainty as WDFW looks to impose crippling restrictions on our industry.

San Juan Safaris and San Juan Island Outfitters have been heavily involved in the licensing process and after reviewing the Environmental Impact Statement (EIS) prepared for WDFW's commercial whale watching licensing program, we feel strongly that the regulations proposed will be harmful to both whales and commercial whale watching businesses. We are particularly concerned that the EIS calls for not only limitations on the number of hours, days, and months that license holders can view Southern Resident killer whales, but also limitations on the number of hours, days, and months that license holders can operate tours at all. These restrictions on the viewing of the region's thriving populations of other whales, such as Bigg's killer whales and humpback whales, would have a significant negative impact on our operations. Additionally, these restrictions could cause additional harm to whales in our area as commercial whale watch vessels are a key resource in alerting private boaters to the presence of whales and how to operate around whales.

Alternative 1 would restrict the commercial viewing of all whales to 0 to 2 days per week, 0 to 4 hours per day for an 8 to 11-month period with additional restrictions for Southern Resident killer whales for an 8 to 12 month period. The EIS states that this will reduce commercial whale watching opportunities by 71 to 100 percent. San Juan Safaris and San Juan Island Outfitters run tours a minimum of 8 months per year and up to 10.

Alternative 2 would restrict the commercial viewing of all whales to 3 to 5 days per week, 4 to 8 hours per day for a 4 to 7-month period with additional restrictions on SRKW for a 4 to 7 month period. The EIS states that this will reduce commercial whale watching opportunities by 29 to 57 percent. **With three vessels, San Juan Safaris and San Juan Island Outfitters operate 3-5 tours daily during peak summer months. Our tours range 3-4 hours each. Two of our vessels run two or more trips per day June through early September and we require time between tours to offload and load**

15a



customers and clean. In light of COVID-19, the time between tours has had to increase to allow for additional sanitation and safety measures. With the limitation on time and viewing days, our whale watching opportunities would be reduced by more than 29 – 57% as stated by the EIS and could be decreased by as much as 75% if the tightest restrictions are enforced under Alternative 2.

Alternative 3 would restrict the commercial viewing of all whales to 6 days per week, from 1 to 2 hours after sunrise to 1 to 2 hours before sunset, during a 1 to 3 month window with additional restrictions on viewing Southern Resident killer whales for a 1 to 3 month window. The EIS states that this will reduce commercial whale watching opportunities by 14 percent. San Juan Safaris offers a daily “sunset” whale watching tour from Memorial Day through late August that is very popular. This tour returns later than two hours prior to sunset and this restriction would not allow us to run this tour. Additionally, later in the summer and fall as the sun sets earlier, this time restriction would restrict even our early/mid-afternoon tours as our tours can be up to 4 hours long. We cannot shift tours to an earlier departure time due to the operating schedule for the WA State Ferries, which most of our guests take for a day trip, and we often have to push tours back due to late ferries. Alternative 3 would inhibit our ability to run tours during early and late season by restricting what time we are able to offer tours. Alternative 3 could cause at minimum a 25% decrease in our peak season tour offerings (well above the proposed 14% by the EIS) and could additionally cause us to not run tours at all during fall and early spring (2-4 months of our operating season).

15b

In their final report, Industrial Economics, Inc. declared that “reduced ridership of 14 to 27 percent may raise viability concerns related to these businesses as compared to a reduction of 20 to 50 percent in ridership described in the draft analysis” and “a reduction in ridership of 14 to 27 percent may constitute an economic viability threat.” We feel that the economic viability study and EIS underestimate the economic impact of the proposed whale watching restrictions, but even so, using the report’s final threshold of 14 to 27 percent reduction in ridership as constituting an economic viability threat, Alternative 1, Alternative 2, and Alternative 3 should all be disqualified. The only option that does not cause undue economic hardship on commercial whale watch license holders is Alternative 4 - no action.

The proposed date and time restrictions will not only hurt our business economically, but they leave all whales - Southern Resident killer whales, Bigg’s killer whales, humpback whales, minke whales, and gray whales - vulnerable to vessels unaware of their presence or how to safely operate around them. Both Soundwatch and WDFW enforcement officers attest that private vessels behave more safely around whales when commercial whale watch operators are there to set a positive example. Our trained naturalists are skilled at identifying whales, educating guests, and inspiring meaningful conservation action. We are often the first to alert cargo ships, ferries, and military vessels of whales in the area. A naturalist working on a San Juan Safaris vessel was the first to report one the 2020 SRKW calves – J57. The naturalist and captain then worked to alert the rest of the PWWA and the Center for Whale Research so that vessels could maintain distance and allow research vessels room to work. Our captains have direct contact with private boats on nearly every tour and log



negative or problematic interactions. Our sightings log and photos have also contributed to local and regional research.

While San Juan Safaris and San Juan Island Outfitters believe that more time should be allotted to adequately assess the effectiveness of the increased distance and speed restrictions that went into law in May 2019 before considering the implementation of additional regulations, out of an abundance of caution, we would support the suggestions put forth by the Pacific Whale Watch Association which include:

- Limit of five commercial license holders at the 300-yard statutory distance from a group Southern Resident killer whales at any one time
- 45-minute limit with Southern Residents per license holder per tour
- License holders must fly the Whale Warning Flag while viewing Southern Residents
- West side of San Juan Island zone closure when Southern Residents are present
- Reporting to WDFW of Southern Resident presence and commercial whale watch operator sentinel actions

We hope that you will consider the vital role that commercial whale watching operators like San Juan Safaris and San Juan Island Outfitters play on the water protecting whales and the certain hardship the proposed actions in the EIS would cause for our business, our hardworking staff, and their families.

Owner & Captain Brian Goodremont

San Juan Safaris
San Juan Island Outfitters



PROMOTING STEWARDSHIP OF WHALES AND THE SALISH SEA ECOSYSTEM THROUGH EDUCATION AND RESEARCH

October 21, 2020

Washington Department of Fish and Wildlife
600 Capitol Way North, Olympia WA
98501-1091

The Whale Museum (TWM) would like to take the opportunity to comment on the Draft Programmatic Environmental Impact Statement: Commercial Whale Watching Licensing Program. TWM's comments are based on approximately 40 years of data from our Marine Mammal Sightings Database and the Soundwatch Boater Education Program, with primary focus on the status of the endangered Southern Resident Killer Whales (SRKW).

Upon reviewing the DEIS, TWM recommends Alternative 2 with the addition of the sonar/echolocation provision from Alternative 1. We consider the limitations outlined by Alternative 2 to be consistent with historical data provided by TWM programs as well as reasonably realistic in terms of implementation. TWM believes that the inclusion of the sonar/echolocation provision is an essential component to achieve the overarching goal of reducing noise and disturbance impacts, particularly as these relate to foraging.

TWM also supports the development of an adaptive management strategy as the method for continued analysis and adjustment of the Commercial Whale Watching Licensing Program rules. We believe that it will be essential to utilize data driven information provided by on-going, up-to-date research and monitoring in order to accurately identify and adopt necessary changes.

The mitigation measures outlined in the DEIS and under consideration by WDFW are positive actions that TWM acknowledges and supports, particularly the need for further research on the influence (magnet vs. sentinel) of CWW vessels, as well as the implementation of AIS on CWW vessels. TWM further supports continued and improved communication between CWW vessels and enforcement/research vessels to include identification and reporting of animal status. As an education and outreach platform, TWM is in favor of establishing the education-based mitigation measures described for CWW operators and clientele.

TWM understands and appreciates the complexity of drafting new rules with the ultimate goal of SRKW protection and recovery. We are grateful to WDFW for the undertaking of this task, and hope that our contributions may be helpful in this process.

On behalf of The Whale Museum's Board and Staff
Respectfully submitted by,

Jenny L. Atkinson
Executive Director
Email: jenny@whalemuseum.org
Phone: (360) 378-4710 ext. 26

Alanna S. Frayne
Be Whale Wise & Soundwatch Coordinator
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Phone: (360) 378-4710 ext. 33

THE WHALE MUSEUM

PO Box 945 • 62 First Street N • Friday Harbor, WA • 98250
360.378.4710 • FAX: 360.378.5790 • www.whalemuseum.org

Dear Julie Watson (WDFW Killer Whale Policy Lead) and Kelly Susewind (WDFW Director),

The San Juan Islands Visitors Bureau supports licensing for commercial whale watching (CWW). Any commercial enterprise involving an endangered species like the Southern Resident Killer Whales (SRKW) should be regulated and adaptively managed to ensure the protection of the species.

A simple proposed solution is that the number of vessels on scene with the whales at any given time should be regulated. That number should be a maximum of 4 vessels with any one group of Southern Resident killer whales in the Salish Sea from 9 AM to ½ hour before sunset. This would be a precautionary approach on behalf of the whales, is easily enforceable, and ensures a thriving whale-watch industry.

If the Washington Department of Wildlife chooses to go with one or more of the preferred alternatives outlined in the DEIS, we would support the following rules:

- Allow CWW to view SRKW between 12 months of the year. Without any commercial whale watch vessels on scene with the whales in inland waters:
 - private boats will be less likely to know the whales are present
 - private vessel operators will not have a model of what safe boating distances and speeds look like
 - the military will not be made aware when whales are entering active testing zones
 - researchers will have more difficulty locating and tracking whales, and key observations that are regularly made and reported by whale watch captains and crew, including injured or malnourished whales, missing whales, and new calves, will go unnoticed for longer periods of time.
- Up to 4 CWW vessels maximum allowed to view SRKWs at a given time to reduce acoustic impact
- CWWs would be limited to spending up to 45 minutes (per vessel) in the vicinity of SRKW
- Maintain the go-slow zone of 7 knots within 1 nautical mile of SRKW wherever they travel
- Closure of the west side of San Juan Island for commercial whale watch operation should be limited to when whales are present; the rule as written precludes, for instance, vessels going in for a photo-op at Lime Kiln lighthouse on a no-whale day.

With the final action, we support all four mitigation measures proposed by the Department of Fish and Wildlife. And we strongly suggest limiting licenses to existing vessels and companies in the Salish Sea. If a company or vessel is sold, the license goes back to the state. Any new vessels or companies would be required to obtain a license from that pool.

We feel it is important to note that commercial whale watch vessels provide a platform to introduce members of the public to the Salish Sea, educated them about the endangered Southern Residents and other species, and inspire them to help with recovery actions. Professional whale watch companies benefit the whales and the Salish Sea by regularly returning portions of their revenue to habitat recovery efforts and regional research and advocacy causes, reporting stranded, entangled, injured, or ill animals, and contributing to science by sharing sightings data and identification photos, including new calves, with multiple organizations (research, governmental, NGOs). Commercial whale watch operators helped develop the Be Whale Wise guidelines, and their industry guidelines go above and beyond current state and federal regulations and take proactive steps to adjust their viewing guidelines as new

science becomes available. In the spirit of this legislation, we feel there should also be limitations on the number of private vessels surrounding the SRKWs.

Thank you for considering our comments.

Sincerely,

The San Juan Islands Visitors Bureau Board and Staff

I am a captain and marine naturalist with 7 years of professional experience equating to 5400 hours on the water. In addition to this I have been a recreational boater/sailor/diver around the San Juan islands since 1992. In all of this time I have been witness to births and deaths of many whales, trends in behavior, travel, foraging styles, and socialization as well as the changing dynamics on the water regarding vessel volume and behavior. The focus of my letter will be on the false narrative that removing or limiting whale watching for SRKW is a solution for their recovery.

There are four primary examples why limiting whale watching boats is not a solution:

- A. In the 90's the SRKW had a growth boom, when there were few reg's and far more commercial and recreational boats.
- B. The SRKW go up to the Coal Ports in Vancouver to forage at the river that is their primary source of chinook salmon. This area is arguably the noisiest area in the Salish Sea as Transport Canada's own studies have concluded, due to tanker/freighter traffic and Ferry's not to mention Vancouver BC pleasure boaters. None of these vessels slow down or deviate course for SRKW.
- C. The SRKW also have spent far more time foraging at Swiftsure Bank at the mouth of the Strait of Juan de Fuca. This is a bank that is next to shipping lanes for every Tanker coming to Vancouver and Seattle. They are running at full speed at this point and their sound footprint is not only louder but travels much farther than small vessels.
- D. Commercial Whale and wildlife tours spend around 90 percent of their time watching Bigg's Killer Whales. Yet this population is thriving with a 90 percent success rate in births and over 90 new calves in the last 7 years among the population that uses the same range as the SRKW. This ecotype of whale uses passive bio sonar to find prey. Thus it should be more difficult for them with boats nearby. Yet they have no problem at all. They are higher in the food chain and hold more toxins in their system yet they don't get sick or have miscarriages as often and are living longer lives. The reason is food! They have plenty of prey resource.

In addition and not a point to be belittled, is the role commercial operators play in alerting other vessels to the presence of whales. We not only stop vessels heading directly into whales at high speed many times, but we slow down vessels nearby which reduces the overall soundscape. A whale beloved by everyone was J 34 (Double stuff) Son of J22 brother to J38. And he is dead because of blunt force trauma. He was found in northern Strait of Georgia washed ashore likely after being hit by a boat. Take us off the water and I shudder at the thought of how many more times this will happen. But most whales don't wash ashore when they die. They just disappear. One by one, These whales will disappear. With no witnesses, we won't know why.

18a

As for your specific plan it is in no way in alignment with science or whale behavior. To make rules around days of the week, times of the day and specific locations goes to show how little this is about SRKW protection and instead about public optics. Taking whale watchers out of view does not fix the problem for the whales. Even if you implement these rules it will only change a very few hours of the whales lives a year. (not for the better as I have stated). However when the whales do decide to come to San Juan island you are going to allow recreational boats and fishing boats to transit the area even close to shore. Is this not obvious to everyone what a problem this is? If you take away the experts/sentinels, you are left with a vacuum of knowledge. Who will report times to celebrate new births, time to mourn deaths, inspire the public to take action to save the salmon, with beautiful photographs of majestic whales who are tied to their survival. We are all tied to the ocean and the SRKW are the poster child for the health of our seas. Take away their story on a day by day basis and you take away the oceans best lobbyist.

18b

Captain Alan Niles

It is unfathomable to me that we allow whale watching vessels to follow the Southern Resident Orcas. I live on the water just north of Kingston and have a direct view of all activities on the water and I monitor the whale watching boats closely. Regardless of what precautions they may claim to take, the reality is that they strive to give their customers a close-up experience with the whales. I have witnessed on MANY occasions the boats line up in the path of the whales. While following and when in pursuit as the whales gain speed, they accelerate, and the engines are at a tremendous decibel level—I can literally hear them roar at 4-5 MILES away. Given ALL that we are struggling with to help save the Southern Residents, how is it even possible that we can allow large watercraft to follow them relentlessly for 10 (plus) miles at a time? There are other ways for people to view whales and this current practice is one step shy of Sea World. 20 years from now, we will look back at this and think it to be barbaric or tragic, similar to how early explorers broke off stalactites in caves as souvenirs.