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

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December 24, 2009

Donna Darm and Lynne Barre  
Protected Resources Division  
Northwest Regional Office  
National Marine Fisheries Service  
7600 Sand Point Way NE  
Seattle, WA 98115

Dear Ms. Darm and Ms. Barre;

The Board and staff of the Whale Museum would like to express our appreciation to NOAA for exercising your authority under the MMPA and ESA by proposing strong federal vessel regulations. While we acknowledge that vessel disturbance is but one of the three main threats faced by the endangered Southern Resident orcas, reducing acoustic and behavioral impacts will make synergistic contributions to the recovery of this icon of the Salish Sea.

The Whale Museum's comments on NOAA's proposed regulations are based on our thirty years of first-hand experience on the water as well as extensive outreach to stakeholders and agencies. We have worked with citizens, the whale watch industry (Pacific Whale Watch Association - PWWA) and various governmental agencies over the years to collaboratively develop and fine-tune the "Be Wise Guidelines." One thing we have heard clearly from the greater community is that we all care about the whales and want to help them recover. It is our hope that we can band together around these modifications of NOAA's proposal as we think they better reflect the whales' place in our community.

While we are also concerned about the whales' having sufficient supplies of unpolluted prey, we welcome this opportunity to address how to improve the management of whale watching and other vessel activities. We consider NOAA's current proposal a work in progress. In addition to addressing our suggested modifications we encourage you to expand upon the information given to the public in the Federal Register Vol. 74, No. 144 under the title 'Rationale for Regulations' as to how this regulatory effort fits into the other efforts being made to recover salmon and reduce pollution in the region. We believe there is much for NOAA to inform the public about such exciting restoration efforts that are occurring on the Elwha, Skagit and Nisqually Rivers. However, this past year's dramatic salmon declines on the Fraser are of grave concern, which like so many other management issues, underscore the importance of bilateral efforts with Canada.

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**THE WHALE MUSEUM**

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## **The Whale Museum's Comments re: Proposed Vessel Regulations**

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The Whale Museum believes that while whale watching provides crucial conservation education and outreach opportunities furthering marine mammal protection, continued boating pressures and noncompliance with the Be Whale Wise Guidelines, the Pacific Whale Watch Association Guidelines, the San Juan County Marine Stewardship Area Guidelines as well as the Washington State Vessel Regulations for Killer Whales, show a clear need for new federal regulations and a critical call for enforcement funding.

As the sponsor of the Soundwatch Program, we are keenly aware of the importance of an adequate enforcement program to accompany any proposed regulation. In fact we believe that NOAA's inability to commit to funding a rigorous enforcement program is one of the greatest shortcomings of the current proposal. While we recognize that Congress must appropriate funding for such an effort, we ask that NOAA include recommendations for such a program that is supported by a broad cross-section of the community. We have a suggestion for using the budget line item created by Congress for the NW Straits Commission to codify this effort but would welcome any alternate suggestions NOAA may propose as well.

In our June 20, 2007 scoping comments letter to NOAA, The Whale Museum recommended several items that we think are essential for success. Our focus on the west side of San Juan Island is based on years of observation that this portion of the whales' critical habitat serves as the core area for their survival as this is where the majority of salmonids migrating to the Fraser River travel and are easiest for the whales to encounter. For the same reason, this is also the area where there are intense sport, commercial and tribal fishing efforts and where violations of vessel guidelines and regulations most commonly occur.

In addition, the publically accessible areas along the shorelines from the San Juan County Park south to the Land Bank's Westside Preserve, including Lime Kiln Point State Park (a.k.a. Whale Watch Park) serve as a unique area where the public can view the ocean's top predator from shore. It is imperative that the boating activities that occur within sight of this highly sought after destination model appropriate behavior so as to serve as a model for respectful viewing on the water. Finally, the Lime Kiln Lighthouse has been The Whale Museum's acoustic and visual monitoring station for over 25 years and could serve as a research station for whale behavior without boats into the future.

The following are our comments regarding the currently proposed regulations and suggestions for further consideration predicated on the existence of an increased and ongoing education and enforcement effort:

### **Geographic Scope of proposed regulations**

The Whale Museum supports the current proposal as is: applying to vessels in navigable inland waters of Washington under U.S. jurisdiction.

The Whale Museum supports boater education about the Southern Resident Killer Whale Summer Core Habitat (designated as critical habitat by NOAA). We recommend that this area be referred to on all NOAA and navigational charts/aids as '*Whale Waters-Watch Out*' to serve as notice to boaters of the high likelihood of encountering killer whales in this area during the summer months (May–October) and to alert boaters that vessel regulations are in effect. These areas could be widely published as Notices to Mariners, in the WDFW sport fishing rules booklet and included in the Washington State Department of Licensing along with boater registration renewal notices. Specific areas within the larger '*Whale Waters-Watch Out*' area that are frequented by whales could be highlighted as '*Whale Cautionary*

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*Areas*'. Special Vessel Management Areas' with specific vessel regulations should require that vessels 'give right of way' to the whales.

### **Proposed Vessel Exemptions:**

The Whale Museum supports the general exemptions as proposed, excepting specifics outlined in a recommended modification to the proposed No Go Zone outlined in detail (see "No Go Zone" comments).

In addition, we suggest that additional special restrictions apply for kayakers and other human-powered craft. Regulations that apply to kayakers should require them to remain at or within 440 yards of shore when in these same areas to prevent them from moving off shore to paddle in the whales' path and into the area of high vessel traffic. Specific kayaker regulations could also require rafting up and not paddling when whales are within 200 yards, waiting onshore as whales pass and/or going next to the shore as whales pass, etc.

### **Proposed Restrictions Applied to All Killer Whale Types:**

The Whale Museum supports that the proposed restrictions apply to all killer whale types occurring in the geographic range proposed as it is hard for the average boater to ascertain killer whale types.

### **Proposed Approach Restriction**

The Whale Museum supports NOAA's proposal to increase the minimum distance that vessels will be allowed to be from orcas. However, we recommend that the approach restriction be set at 150 yards which is an increase over the current 100 yards which is in Washington State law but is less than the 200 yards proposed by NOAA.

Given the often unpredictable and dynamic social nature of multiple pods of killer whales and the high likelihood of vessel encounters with whales in the summer months, we recommend that vessels be encouraged through the *Be Whale Wise* guidelines to stay 200 yards away from whales whereas enforcement would require that vessels stand off at least 150 yards. ([www.bewhalewise.org](http://www.bewhalewise.org))

With clear evidence of impacts on killer whales from vessels in peer reviewed publications [see note #1 at end], The Whale Museum supports the proposed 200 yard distance from all killer whales. However with the passing of the 100 yard State and County laws, Soundwatch data shows that the majority of commercial whale watch operators are now often keeping a distance of 150-200 yards. This has not been the case for private vessels. We believe that the strict and consistent enforcement of a 150 yard buffer around the whales and encouragement via *Be Whale Wise* to maintain a 200 yard buffer will provide additional protection and will provide an acceptable compromise for stakeholders. With the legal limit set at 150 yards, commercial operators have said they will remain at the 200 yards we originally proposed. In order to get these distances from private vessels, more enforcement is needed.

We do not believe there is any justification to support retaining a universal 100 yard approach distance for all cetaceans as has been called for by some during the public hearings. Not only does such a "one size fits all" approach fail to recognize the differences in the life history of the diverse array of cetacean species, it also fails to recognize that while all marine mammals are protected under the MMPA, those that are also listed as an endangered species deserve even greater protections. The Southern Resident orca community is amongst the most endangered of all cetaceans in the in the United States.

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### **Proposed Prohibition of Parking in the Whales' Path:**

The Whale Museum fully supports NOAA's proposal that vessels keep clear of the whales' path within 400 yards of the whales. Evidence presented in recent years has indicated that vessel presence in the whales' path may elicit behavior changes and/or impede a whale's or group of whales' ability to capture and/or share prey [see note #2 at end]. We support that vessels should be restricted from approaching (motoring) or positioning (stopping) a vessel (including kayaks or other human-powered craft) or otherwise allowing a vessel to become within 400 yards of approaching whales or positioned so that the whales pass closer than 150 yards of the vessel.

### **Proposed No Go Zone:**

In concept, The Whale Museum supports NOAA's proposal to create a NO GO ZONE [see note #3 at end] along the west side of San Juan Island. The Whale Museum recommends that the west side of San Juan Island be considered a *Special Vessel Management Area* as an alternative to the proposed blanket NO GO ZONE.

The Whale Museum recommends a three-component approach along the west side of San Juan Island establishing specific vessel regulations requiring that vessels '*give right of way*' to the whales in this congested area:

#### ***San Juan Island Special Vessel Management Area:***

- *SLOW ZONE* for all vessels, requiring vessels to travel at less than 7 knots from Mitchell Point to Cattle Pass when within 1/2 mile of shore, in effect year round
- *WHALE RIGHT OF WAY ZONE* for motorized vessels (human-powered craft exempt) when whales are present between May 1 and Sept 30 from Mitchell Point to Eagle Point. Vessels shall be required to move off shore to 1/4 mile (440 yards) when whales are '*present.*' '*Whales present*' should be defined as when a whale is within 1/4 mile (440 yards) of your vessel and when vessels and whales are within 1/4 mile (440 yards) from shore
- *ORCA ZONE* around Lime Kiln Point for motorized vessels year round. This would create a *No Go Zone* (human-powered craft exempt) from shore out to 1/2 mile off shore, running south from Lime Kiln Bay to Deadman Bay on the west side of San Juan Island. This area would be a kayak/human-powered craft only zone, all other restrictions applying. No exemptions for recreational or commercial fishing.

*These recommendations are consistent with the existing whale watching guidelines adopted by the PWWA.*

### **Details:**

***SLOW ZONE for all vessels, requiring all vessels to travel at less than 7 knots, Mitchell Point to Cattle Pass when within 1/2 mile of shore, in effect year round.***

Rationale for this provision is to reduce the most common and potentially most harmful violation of vessel regulations recorded by Soundwatch (> 7 knots within 440 yards, motoring within 100 yards and motoring inshore of whales) as well as to reduce the volume and pitch of boat noise in the primary areas where whales are known to be spread out and foraging.

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In additional areas known to be regular foraging areas for the whales such as the Salmon Bank Triangle (Offshore SE from Eagle Point to the Salmon Bank Marker and E to Iceberg Point on Lopez Island - this includes the Cattle Pass area) we suggest having additional '*Cautionary Whale Waters - Watch Out*' highlighted on the NOAA Navigation Charts, as a Notice to Mariners and in the WDFW sport fishing Rules Booklet along with the *Summer Core Whale Habitat* (as designated by NOAA as part of the critical habitat for southern resident orcas). In these areas vessels would be required to follow all of the other regulations. The highest densities of vessel traffic tend to be from Cattle Pass at the south end of San Juan Island to Turn Point on Stuart Island, with the highest overlapping densities of vessels and whales occurring along the west side of San Juan Island from Cattle Pass to Kellett Bluff on Henry Island.

**WHALE RIGHT OF WAY ZONE for motorized vessels (human-powered craft exempt) when whales are present between May 1 and Sept 30 from Mitchell Point to Eagle Point. Vessels shall be required to move off shore to ¼ mile (440 yards) when whales are 'present'. 'Whales present' should be defined as when a whale is within ¼ mile (440 yards) of a vessel and when vessels and whales are within ¼ mile (440 yards) from shore**

The waters ¼ mile offshore within the established *San Juan Special Management Area* should be off limits to motorized vessels when the whales are present. The current Voluntary No-Go Zone of ¼ mile from Mitchell Pt. south to Eagle Pt. should be made regulatory to protect the whales established core routes and areas known to have high vessel densities. The highest densities of vessel traffic tend to be from Cattle Pass at the south end of San Juan Island to Turn Point on Stuart Island, with the highest overlapping densities of vessels and whales occurring along the west side of San Juan Island from Cattle Pass to Kellett Bluff on Henry Island. Kayakers and other human-powered craft frequently use this route as well, and while human-powered craft have the potential to cause disturbances, consideration for allowing human-powered craft access within the zone should be considered as the overall risks are considerably lower than for motorized vessels.

**ORCA ZONE around Lime Kiln Point for motorized vessels year round, creating a No Go Zone (human-powered craft exempt) from shore out to ½ mile off shore, running south from Lime Kiln Bay to Deadman Bay on the west side of San Juan Island. This area would be a kayak/human-powered craft only zone, all other restrictions applying. No exemptions for recreational or commercial fishing.**

Create a No Go Zone (human-powered craft exempt) from shore to ½ mile off shore, running south from Lime Kiln Bay to Deadman Bay on the west side of San Juan Island. This area could be a kayak/human-powered only zone. No exemptions for any type of fishing or boating. Several other county and state conservation and recreation opportunities already exist in this key area. It is an area that has a Voluntary Bottomfish Recovery Zone under the San Juan County Marine Stewardship Area, has been part of the established Voluntary No Motor Boat Zone when whales are present since 1996 as well as having The Whale Museum's Whale Research Lab and OrcaSound Hydrophone acoustic station present. It is adjacent to Lime Kiln Point "Whale Watch" State Park and two of the San Juan County Land Bank Westside Preserve Areas - all areas of prime shore-based whale viewing areas and areas where the whales are most often right along the shoreline. This is the main area targeted by the commercial and private kayakers engaged in whale watching and is adjacent to the only San Juan Island west side put-in and public beaches for take-out along the west side of San Juan Island. All other vessel regulations would apply to human-powered crafts. While we recognize that conditions along this stretch can make it difficult to plan for kayakers, we would like NOAA to encourage kayakers to tuck into bays

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such as Lime Kiln or Deadman Bay rather than rafting up in the kelp at the prominent points along the way. Since the whales rarely linger at this spot, it would not pose undue hardship on the kayakers. It would allow for the shore-based observers at Whale Watch Park to have an unobstructed view of the whales free of human interactions which can set unreasonable expectations for them when they approach the whales on the water.

### Other Recommendations:

- **Special consideration should be given for human-powered craft to address the unique needs of this vessel type.** Maintaining distance restrictions as well as remaining out of the whales' path can be extremely challenging for human-powered craft even with the best of intentions. We submit that strict adherence to the special provisions and well-defined best practice guidelines could serve to address the potential threats human-powered craft have on changes in behavior demonstrated by the endangered Southern Resident Killer Whales.
- **Recommend federal support for kayaker-specific education efforts** with resources to operate at the San Juan Island County Park throughout the summer core season (May 1 – September 30).
- **Designate a US/Canadian federal, state, provincial, local government, and NGO enforcement and education team,** with identified agency and persons responsible for enforcement and education.
- **Additional funding sources for enforcement.** The Whale Museum has issued a call to the commercial whale watch industry to match federal funding for enforcement through a self-imposed per passenger fee. None of the regulations will have the intended impact without a consistent enforcement presence. We all care about killer whales. We all feel that enforcement is necessary. We all therefore need to join forces to insist on proper funding for enforcement from our state and federal elected representatives and agencies.
- **Reduce vessel speed near whales.** Recommend a specific speed limit of no more than 7 knots within 440 yards (¼ mile) from whales anywhere and at all times would be an appropriate 'slow, safe speed' and distance to give vessel operators enough time and distance to see whales, slow down and still be able to make course adjustments to get themselves out of the whales' path while operating the vessel in a safe manner.
- **Cautionary Exit Corridors Adjacent to Whale Routes.** Adjacent to the whales' core routes are several heavily used traffic areas that exit out into whale routes. In addition to the alternate vessel restriction areas and special '*Whale Waters Watch-Out*' *Caution Areas*, these exit corridors need to be marked on the same NOAA navigational charts, Notice to Mariners, etc. Notices of these cautionary exit areas could be posted on existing or intentionally placed navigational buoys or markers at the exit areas cautioning boaters as to the '*Whale Crossing Area Ahead*'. In these areas boaters should be advised to approach slowly, ascertain whales' presence, proceed cautiously and/or wait for the whales to pass. Vessels should not exit the pass until whales are at least 400 yards beyond the exit area and vessels should go out at least 400 meters at maximum of 7 knots before going out and around whales. Some exit areas of concern are Cattle Pass, San Juan County Park (Small Pox Bay), Mosquito Pass/Open Bay, Roche Harbor/Spieden and New Channels to North Haro Strait and the Turn Point Boundary Pass Area.
- **Vessel Operator Permit and Naturalist Certification Program.** The Whale Museum recommends NOAA further explore vessel permitting systems and suggests a phased permitting system that could evolve over time as current levels of whale watching efforts are evaluated and better understood. To start off, we recommend a permit be immediately required for all commercial company vessels engaged in whale watching activities, including kayaks, charters,

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aircraft and specific whale watching vessels operating in the '*Summer Core Whale Habitat*'. This would include all Canadian and U.S. companies operating in this specific area. Initially there could be an annual permit given out to all operators for a fee, established as a flat rate or an assessment based on use and/or passenger capacity. In the first years, it could be a requirement just to obtain and display the vessel permit, reporting on vessel statistics (make, model, engine type, passenger capacity, total annual passengers, etc.) and require operators to log and report contact time with Southern Resident Killer Whales, or all killer whales and/or all other whales.

In order for a permit to be obtained by a company, all company vessel operators (guides for kayakers) must also be required to obtain an annual certification as to knowledge of whale behaviors and proper procedures for operating vessels around whales as well as current regulations. This could be done through annual operator certification training courses. In addition, naturalists/guides working for these companies would also need to hold a certificate of training on killer whale biology, conservation, guidelines and regulations. This could be accomplished through a certification naturalists' course with a requirement for annual "continuing education" coursework. Fees should be charged for certifications that cover the costs of the courses and materials. If companies do not meet these requirements, they would not be given their permit to operate in the Whale Waters Area.

In the future, permits may give a company more access to certain areas, viewing times, approach distance, etc. Permits may also become limited as to numbers given out, limited by company, and/or vessel operator record of incidents, regulation violations, areas, etc. Permits may also be used to limit the number of vessels allowed to operate or to operate in certain areas.

All permit fees should go directly to supporting not only the permitting infrastructure but also enforcement and monitoring efforts. Fines from regulation violations should go back into the enforcement of regulations. Additionally, one or two dollar per passenger stewardship fees should be encouraged of each passenger on board permitted vessels if the permit fee alone is not sufficient to fully fund permitting. Additionally, these fees should go into killer whale conservation, education, stranding networks and monitoring activities.

Work with the San Juan County Parks to create a San Juan Island County Park permit and fee for recreational and commercial kayakers launching from the park. Motorized vessels should be charged a launch fee. Create a Whale Museum/San Juan County Park Partnership/NOAA/Kayak Association partnership to implement a sustainable kayaker education program (slide show, programs, materials, personnel) for kayakers, boaters.

- **Foreign Vessels:** It is important that the regulations apply to all commercial and recreational vessels, including vessels originating from Canada, as we know many of the private recreational boaters and commercial vessels operating in these waters are from Canada. Explore whether the Vessel Traffic Treaty between the U.S. and Canada can be used to address this concern.
- **Use of Special Shoreline Symbols to Remind Boaters of Area Restrictions when Whales are Present:** Much like the fishing regulations are displayed in Canadian waters, large yield symbols outlined in a certain color could be placed along the shoreline in the restriction and exit areas. The symbols and their locations could be published on the NOAA navigational charts, Notice to Mariners and Sports Fishing rules booklets.
- **Utilize the State Vessel Licensing System:** At time of vessel registration, the state should handout or mail whale-watch regulations and guidelines including brochures and stickers for placement in vessels. Signature on a vessel's registration would signify awareness of these regulations. The State's current Carbon Monoxide Program could be used as a mode for an annual 'Orca Sticker' to be placed prominently inside any vessel operating in the *San Juan Island*

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*Special Management Area.* Consideration should be given to requiring that vessel operator training include procedures for operating around whales. Fines could be assessed upon vessels caught operating in the area without sticker.

- **Create a 'Whale Waters Watch Out' VHF Radio Channel/or Notice System:** Utilize the NOAA Weather and/or emergency notification channel and Notice to Mariners updates to provide notices of whale regulations and restrictions especially on busy holiday or special whale situation days. Use a regular frequency for vessels on-scene to communicate about proper placement. Note: Not a channel for vessels to call into to find out where whales are. NOAA USCG VHF radio ALERT broadcasts when whales in the zone Cooperative enforcement & education monitored, designated low frequency VHF radio channel for whale info in zone.

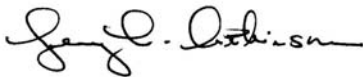
We appreciate the opportunity to comment on behalf of The Whale Museum. We are pleased to be working together to help recover the Southern Resident Killer Whales and their important habitats. We believe the implementation of these modifications to the original proposal will go a long way to furthering that goal.

Sincerely,



Val Veirs, PhD

President, The Whale Museum Board of Directors



Jenny L. Atkinson

Executive Director, The Whale Museum



Kari L. Koski

Soundwatch Program Director

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## A P P E N D I X :

### #1 Vessels affect the behavior of killer whales:

Recent papers on studies of the Southern Resident orcas published by Foote et. al. and Holt et. al. document changes in orca vocal behavior when in the presence of vessel noise. Williams et. al. documents changes in swimming behavior when in the presence of vessels and Noren et. al. established that the southern resident orcas carryout more surface active behaviors when vessels are close than when vessels are far away.

- Foote AD, Osborne RW, Hoelzel AR (2004) Whale call response to masking boat noise. *Nature* 428:910.
- Holt MM, Noren DP, Veirs V, Emmons CK, Veirs S. Speaking up: killer whales (*orcinus orca*) increase their call amplitude in response to vessel noise. *The Journal of the Acoustical Society of America*. 2009;125(1):EL27.
- Williams R, Ashe E. Northern resident killer whale responses to vessels varied with number of boats. *Field Methods*. 2006; (Williams 2003):1-36.
- Williams R, Ashe E (2007) Killer whale evasive tactics vary with boat number. *J Zool* 272:390–397.
- Noren DP, Johnson A, Rehder D, Larson A. Close approaches by vessels elicit surface active behaviors by southern resident killer whales. *Endangered Species Research*. 2009;8:179-192.

### #2 Noise limits acoustic range:

Many modeling studies calculate the reduction in range that vocalizing or echolocating animals caused by increased underwater background noise. One often cited study (Erbe) was done on the Southern Resident orcas. A recent compendium summarizes noise effects on terrestrial animals and reports that a 3 dB increase in noise, which we humans would say is barely perceptible, reduces the listening area available to animals by 30% and a 10 dB increase reduces listening area by 90%. A vessel making noise at 150 yards is 3.5 dB quieter than when at 100 yards. At 200 yards this vessel's noise is 6 dB quieter. Requiring boats to be farther than the current 100 yard requirement will give the orcas increased listening area which should assist them in their foraging.

- Erbe C. Underwater noise of whale-watching boats and potential effects on killer whales (*Orcinus orca*), based on an acoustic impact model. *Marine Mammal Science*. 2002;18(2):394-418.
- Barber, Crooks, Frstrup. The costs of chronic noise exposure for terrestrial organisms. *Trends in Ecology and Evolution*, 2010.

### #3 Value of 'NO GO ZONES'

Regulatory powers and effective enforcement are necessary if vessel interactions with whales are to be reduced. Voluntary compliance is not enough (Wiley et. at.). Marine protected areas have been created in many places around the world and these, when large enough, lead to dramatic increases in the health of the protected areas. In the U.S. there is precedent for whale sanctuaries including: Stellwagen Bank National Marine Sanctuary, Cordell Bank National Marine Sanctuary, and the Hawaiian Islands Humpback Whale National Marine Sanctuary. While such whale sanctuaries are too small to fully protect such wide ranging species, they do provide some needed protection. In the case of the Southern Resident orcas, the proposed limitations on vessels on the west side of San Juan Island are centered strategically on locations of known foraging hot-spots and hence would significantly improve their foraging prospects. (Ashe et. al. in press).

- Wiley DN, Moller JC, Pace RM, Carlson C. Effectiveness of Voluntary Conservation Agreements: Case Study of Endangered Whales and Commercial Whale Watching. *Conservation Biology*. 2008.
- Stewart, G.B., Côté, I.M., Kaiser, M.J., Halpern, B.S., Lester, S.E., Bayliss, H.R., Mengersen, K., & Pullin, A.S., <http://www.environmentalevidence.org/Documents/Summary-SR23.pdf>
- MPA Summaries at [http://ww3.mpa.gov/mpa\\_lib/org\\_and\\_institutions.aspx](http://ww3.mpa.gov/mpa_lib/org_and_institutions.aspx)
- "Small conservation area could make big difference for whales", (2009) [http://www.greenbang.com/small-conservation-areas-could-make-big-difference-for-whales\\_13045.html](http://www.greenbang.com/small-conservation-areas-could-make-big-difference-for-whales_13045.html) (paper by Ashe, E., Noren, D., Williams, R. in press)