

Southern Resident Killer Whale Protection

Report to San Juan County Council

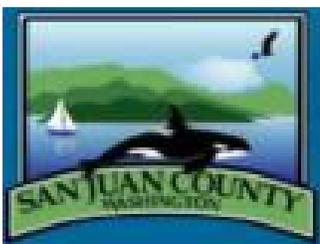
Stakeholder Workshop Results
October 27, 2017



San Juan County Marine Resources Committee
Public Works Environmental Resource Division

NOAA

Sponsors



This project has been funded wholly or in part by the United States Environmental Protection Agency. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

Introduction

The San Juan County Marine Resources Committee (MRC) and Environmental Resources Division of Public Works hosted a community workshop regarding the protection of Southern Resident Killer Whales (SRKWs) on October 27, 2017, at Brickworks in Friday Harbor, WA. Ninety-three (93) participants signed into the workshop and approximately eight (8) additional citizens attended an open house following the workshop. A total of 208 community members were directly contacted via email and others were invited to participate via Facebook advertising which reached 5,900 people.

The goal of the workshop and open house was to gather input from the community regarding their interest and commitment to protecting SRKWs by addressing the three key threats to the population– Lack of Prey / Salmon, Boat / Vessel Noise and Contamination / Pollution. The information from the workshop will be used to refine and advance local actions that the County, local non-governmental organizations (NGO's) and individuals can take to help protect and recover the Southern Residents.



Pre-Workshop Survey

A pre-workshop survey was opened October 16, 2017 and widely advertised along with the workshop invitation. The purpose of the survey was to gather feedback on the public's interest in SRKWs and further identify potential local actions. The information from the survey was used to inform the workshop design and pre-load the list of initial actions shared at the event. A total of 459 people responded to the survey by the day of the workshop, and 517 in total by the survey's closure on October 31, 2017.

Workshop Participants

The workshop was designed to gather a diversity of opinions from 80-100 community members and targeted interest groups that previously engaged in SRKW discussions with the MRC and

County. The workshop registration was open until the sign-up reached 90 individuals and was then closed to allow for filling the remaining ten spaces with the under-represented sectors that had yet to engage. Environmental organizations, whale watching businesses, scientists, interested citizens and government staff were well represented.

Community sectors that were not adequately represented at the workshop, despite a targeted outreach effort, included fishing interests and Indian tribes. The County and MRC will need to engage in direct dialogue with these interest groups, to address any concerns they may have with proposed actions.

Participants included representatives from the following categories:

Category	Participants
Staff / MRC	11
Environmental Advocate / Educator	21
Whale Watch / Eco-Tour	13
Scientists	10
Citizens, Naturalist, Art	7
Government Staff / Elected	7
Tribal Interests	1
Fish and Fisheries	1
Boating / Port/ Other	4
Uncategorized	18
Total	93

Workshop Process and Results

The workshop began with brief introductions and an opening statement from the County and MRC. The results of the pre-workshop survey were presented and an outline of the breakout sessions and prioritization process were shared with the participants. The workshop handout, and participant list are provided in Appendix A.

The initial actions presented to the community in the workshop handout were derived from three sources: 1) previously community-identified actions from MRC events, 2) informal interviews of stakeholders by County staff, and 3) the pre-workshop survey (noted above).

Survey Results

The complete results of the survey are available on the San Juan County MRC website located at <http://www.sjcmrc.org/projects/southern-resident-killer-whale-protection-workshop/>. The full survey summary is 53-pages long, and contains detailed feedback from a diversity of interests.

Key findings from the survey included:

- Islanders and non-Islanders share similar concerns and priorities (Question 1 with comparative analysis of answers).
- Most survey participants identified themselves as concerned citizens, in addition to their respective professions (Question 2).
- A total of 97% of the survey takers are extremely (87%) or very concerned (10%) about the possible extinction of SRKWs (Question 3).
- Bird and wildlife viewing is the top activity bringing survey participants to the marine environment, followed by beach combing, ferry riding and non-motorized boating (Question 4).
- Participants ranked threats to the SRKWs relatively evenly, with lack of prey and contaminants ranking the highest and recreational boater activity the lowest (Question 5).
- The initially identified actions listed in the survey were evenly and consistently supported by the respondents (Question 7).
- The funding prioritization question revealed the highest support was for restoring forage fish and salmon habitats and developing/encouraging regional partnerships for Chinook salmon recovery (Question 9).
- There was strong and relatively equal support for the local funding options ranging from conservation fees, local funding allocations, and annual entrance permits, among others presented in the survey (Question 11).
- A total of 92% of the participants were extremely willing (65%) or very willing (27%) to adjust their lifestyle to reduce stressors on SRKWs (Question 13).
- No longer eating Chinook salmon, using non-plastic bags, and reducing fishing topped the list of individual commitments to act (Question 15).
- There are extensive opinions and views- please read the comments in each question of the survey for further insight.

Action Definition and Prioritization

The actions identified in the workshop for each of the key threats to SRKWs were binned into three categories: Individual Commitments, Local Actions and Beyond (meaning State and Federal actions) as reflected in the workshop handout provided in (Appendix A). The summary of the individual commitments to act, as gathered on notecards during the workshop are provided in Appendix B. The actions that fell “Beyond” local control were noted, but not expanded upon at the workshop.



Workshop participants reviewed, revised, and added to the Local Action lists provided through two rounds of breakout dialogues. New, unique actions were added to the initial action list and shared with all participants. See Appendix C for the complete list of Local Actions identified with the language adjustments and additional actions added by participants. Then participants were each given the opportunity to use five voting dots per threat category to vote on the actions they felt would offer the greatest benefit to SRKW protection and recovery.

The highest priority Local Actions based on the dot count method used at the workshop are shown in the table on the following page. For each of the three threats, 4-7 actions rose to the top tier, followed by a middle and lower tier of scoring (see Appendix C for the ranking of all Local Actions for each threat). There are similar actions in the middle tier that may be combined or considered part of top tier actions.

Next Steps

This workshop is a first step towards implementing measurable actions in the field that will contribute to protecting and recovering Southern Resident Killer Whales.

The MRC will review and present the identified priorities to the County Council in mid- December 2017. Depending on Council's direction and allocation of dedicated funding for SRKW protection, the MRC, County Environmental Resources Division, and interested implementing organizations will work to advance the top priorities. Focused, single-page work plans, will articulate responsible parties for given tasks, timelines and needed budget to achieve measurable results. Environmental Resources will work with other County departments as necessary to advance the efforts identified.

In addition, it is proposed that the MRC convene a quarterly gathering of work plan implementers, to help maintain momentum in the effort and to assist one another in implementing the tasks needed to achieve the target goals.

San Juan County Suggested Local Actions <i>(added workshop language)</i>	Dots
Prey - Chinook Salmon	
County should encourage State agencies and Legislature to permanently ban Atlantic salmon net pens to reduce pollution, disease, and competition risks and encourage other Counties to follow suit in 2018.	48
County should encourage fisheries managers to reduce Chinook harvest in the County (and elsewhere) to rebound SRKW food supply starting immediately.	39
<i>(County/ Local NGO's, not defined) should advocate for allotment for prey for Orca</i>	39
County should protect and increase Chinook forage fish (Sand Lance/ Herring) habitat and abundance by implementing at least three projects a year in priority areas of known habitats.	34
County should review and adapt recently adopted regulations to support stronger shoreline habitat protection measures (and a funding mechanism to legally defend land use decisions that protect the marine resources) starting <i>now</i> . <i>SMP</i> .	33
<i>A Chinook buy-back program funding for tribal fish</i>	25
<i>No docks, armoring in or near eelgrass</i>	23
Vessel - Boating - Noise	
County should require vessel and boat slow down like the ECHO program in County waters throughout the critical summer months of SRKW use of area. <i>And recreational boater education through licensing and Be Whale Wise.</i>	52
County should enact an Orca conservation fee charged to patrons of commercial tours, including outside the County operators operating in San Juan County waters by Spring 2019. Funds should be restricted in use for SRKW recovery actions. <i>Be clear who receives funding and how to apply.</i>	39
County should work with local stakeholders and PWWA to review their operating standards and develop a limited access permit system for SRKW and other commercial whale watching in the County as soon as possible but no later than Spring 2019. <i>And recreational and Fishing. Max # of vessels max time of viewing</i>	34
County should enact a mandatory refugia location for SRKW to feed / rest May-Sept along the deep-water wall habitat and Salmon Bank used by Chinook and SRKW on the west side of San Juan Island by May 2018.	26
<i>Identify and protect forage hot spots</i>	26
<i>Limit water-based whale watching to transients</i>	20
Contamination - Pollution	
County should further improve its land use planning requirements to protect against further degradation of environment, especially marine waters and shorelines. <i>Reduce permitted docks.</i>	58
County should optimize its storm and surface water program to ensure clean waters exist or are improved throughout the County. <i>Wetlands. Proactive restorations, promote LID, raingardens, larger riparian buffers.</i>	49
<i>Banning use of toxic fertilizers and pesticides/herbicides.</i>	48
County and City should promote programs that reduce use <i>and sale</i> of plastics and other toxic products on the islands. <i>Banning plastics, charging for distribution.</i>	46

Credits

San Juan County MRC and Environmental Resources Division of Public Works thank the following for their assistance with this workshop:

- Hilary Wilkinson, Veda Environmental for facilitating the overall event and the Boat/Vessel Noise breakouts.
- Northwest Straits Foundation for providing food and drink for the workshop.
- MRC members: Laura Jo Severson, Terry Turner, Ken Carrasco, Phil Green, and Craig Wingert for assistance with the preparations and event.
- Environmental Resources staff: Mark Herrenkohl (pollution facilitator), Byron Rot (salmon facilitator), Arnie Klaus (overall workshop coordinator), Marta Green (general support) and Kendra Smith (team leader).
- All the stakeholders we interviewed and discussed SRKW issues with in 2017.
- San Juan County Council Rick Hughes, Bill Watson, and Jamie Stephens for their request and directive to act.
- San Juan County Manager Mike Thomas and Public Works Director Russ Harvey for their support in advancing this effort.



Appendix A- Participant Signed In List

Elizabeth Abbott	Howard Garrett	Patricia Morse
Pete Ancich	Joseph Gaydos	Tom Munsey
Susan Marie Andersson	Kailey Genther	Amy Nesler
Caroline Armon	Lodie Gilbert Budwill	Whitney Neugebauer
John Aschoff	D.A. Giles	Jennifer Olson
Jenny Atkinson	Brian Goodremont	Elise Pamuk
Ken Bennett	Sharon Grace	Ken Rea
Connie Bickerton	Marta Green	Karin Roemers-Kleven
Nathan Biletnikoff	Phil Green	Byron Rot
John Boyd	Charles Greene	Mindy Rowse
Hobbes Buchanan	Cindy Hansen	April Ryan
Stephanie Buffum	Paul and Jane Hart	Amy Saxe-Eyler
Vivien Burnett	Drew Harvell	Sarah Severn
Ricarda Burnett	Russ Harvey	Laura Jo Severson
Ali Barratt	Toby Haskell	Sara Shimazu
Ken Carrasco	Jill Hein	Theresa Simendinger
Mariann Carrasco	Mark Herrenkohl	Kendra Smith
Sandra Kersten Chalk	Shirley Hoh	Stephanie Solien
Rich Childers	Taylor Kimball	Ann Stafford
Bill Clogston	Arnie Klaus	Matt Stolmeier
Jill Clogston	Julie Knight	Janet Thomas
Meegan Corcoran	Christina Koons	Terry Turner
Erin Corra	Johannes Krieger	Val Veirs
Tom Cowan	Erin Licata	Scott Veirs
Kathy Cox	Kyle Loring	Jacque White
Dancan Davidson	Peggy Mauro	Tina Whitman
Stephanie Dawes	Jim Maya	Monika Wieland Shields
Katy Foster	Paul McCollum	Hillary Wilkinson
Jeff Foster	Sarah McCullagh	Sadie Youngstrom
Suzanne Franklin	Fielding McGehee	
Elexis Fredy	Tracie Merrill	
Jeff Friedman	Rebecca Moore	

Appendix A- Workshop Materials

A copy of the workshop handout is provided on the following pages. A separate PFD file of the handout is also available for download from the MRC website at <http://www.sjcmrc.org/>





Please Join Us

We are currently accepting applications for new members who want to be involved in ways to protect the San Juan Marine Stewardship Area.

The MRC was established in 1996.

Our mission is to protect and restore the marine waters, habitats and species of the Salish Sea to achieve ecosystem health and sustainable resource use.

San Juan County Marine Resources Committee meets every first Wednesday of the month.

SJCMRC.ORG
mrc@sanjuanco.com
(360) 370-7592



San Juan County Marine Stewardship Area

San Juan County Marine Resources Committee Southern Resident Killer Whale Protection

Friday, October 27, 2017

Workshop 1:30 - 4:30 PM Open House 5:00 - 6:30 PM

Brickworks, Friday Harbor

WORKSHOP OBJECTIVES

Identify and prioritize *individual* and *local community* actions that will help protect SRKW from three known threats: Contamination; boating/vessel noise; and limited food/resources/Salmon/Prey

Elicit personal commitments to act by workshop participants on priority actions.

AGENDA

- 1:30 **Welcome / Introductions**
- 1:45 **Workshop Purpose and Context**
 - What the workshop *will* address (individual and local actions)
 - What the workshop *will not* address (state, federal, other types of actions)
 - Please note that we will only **briefly** review the three threats to SRKW that are the focus of the workshop and will not go into depth about the science that supports these topic areas.
- 2:00 **Potential Actions to Address Three Threats**
 - Overview of Online Community Survey Results
 - Twice Rotating Breakout Groups tasked with:
 - Reviewing list of local actions identified in the survey & previous MRC efforts
 - Adding to/editing list
- 3:30 **Prioritizing Local Actions**
 - Breakout Group Facilitators shares local actions for each of the three known threats: pollution; boating/vessels; and limited food resources.
 - Participants vote on priority actions for each category of threat
- 3:50 **Personal Commitments to Act – Defining Community Leadership through Personal Action**
 - Participants identify one action per threat that they will commit* to take over the next six months to a year and write on a postcard.
*The Commitment should go beyond what is being done now and should "hurt" a bit (financially, convenience, pleasure or otherwise) – the commitment is part of your sacrifice for the Orca. Participants share their commitments (if they choose).
- 4:15 **Summary of Priority Results, and Next Steps**
- 4:15 **Close Workshop**
- 4:30 **Open House**
- 5:00 - 6:30

More information: www.sjcmrc.org amiek@sanjuanco.com Amie Klaus (360) 370-7592



Contamination - Pollution

Overall Goals	Individual Actions	Local Actions	Beyond	Notes
Support toxics and plastics reduction and recycling of reusable materials	I will bring my own bag, request non plastic bags and buy products considering the packaging	County and City should promote programs that reduce use of plastics and other toxic products on the islands.	Support regional recycling strategies that avoid shipping our materials to China and other foreign ports.	
	I will clean and properly recycle items eligible for recycling, and confirm recycle status to avoid being a spoiler.	County should increase outreach and education on ferries, boats, destination points and internet media on how to minimize visit impacts to the Islands and on SRKW.	Work with regional partners and State to continue to advance oil spill prevention and response preparedness	
	I will participate in daily and bi annual litter cleanup events to reduce waste and plastic from entering the marine environment.	County should develop projects to remove creosote pilings from the marine environment at County owned facilities by 2022	Encourage Canada to continue to advance improvements in its wastewater treatment facilities throughout the Salish Sea (Victoria has tertiary treatment scheduled to be operating by 2020).	
Preserve and protect clean water	I will dispose of toxic products appropriately through household hazardous waste events, and limit additional purchases of such items in the future.	City of Friday Harbor and other Island sewerage treatment districts should increase their treatment capabilities to the highest standards possible by 2022, and enable septic pumping operators to use the facilities in the fall-spring off-season.	Work with regional partners and State to continue to advance storm and surface water management to protect water quality of the Salish sea	
	I will purchase and use only non-toxic products	County should optimize its storm and surface water program to ensure clean waters exist or are improved throughout the County.		
	I will regularly pump out and maintain my home septic system (especially after heavy summer use).	County should work with Washington State Ferries to fully treat storm water runoff from ferry terminal areas.		
Utilize a portion of existing local funding mechanisms to support SRKW recovery and marine protections.	I will avoid the use of fertilizer and herbicides/pesticides on my lawn	County should further improve its land use planning requirements to protect against further degradation of environment, especially marine waters and shorelines.		
	I will ensure proper septic pump out and fueling containment on my boat	County should assign some funding from local sales, lodging, and/or real estate excise tax to support conservation actions that will preserve the marine environment and support SRKW recovery, which are major drivers of the local economy.		
	I will maintain my motorized vehicle to reduce pollution of impervious surfaces.			

Vessel - Boating - Noise

Overall Goals	Individual Actions	Local Actions	Beyond	Notes
Reduce vessel and boat noise to enable SRKW to echolocate their prey and communicate	I will limit the use of depth finders, fish finders and other noise making equipment near areas of SRKW core habitats or when they are present.	County should assess its boat fleet and migrate to increasingly quiet equipment as they are replaced (define standards) as a matter of County policy.	Increase State and Federal enforcement and compliance of current boat approach rules protecting SRKW	
	I will slow my boat to less than seven knots in areas known to be occupied by SRKW	County should require vessel and boat slow down like the ECHO program in County waters throughout the critical summer months of SRKW use of area.	Apply organized political pressure with the shipping industry to help facilitate changes in boat/vessel use and noise impacts	
Reduce the number of boats present around SRKW to provide free range of movement to forage and rest during critical time in the San Juan Islands May-September.	I will avoid actively pursuing or viewing of SRKW from boats, and encourage others to limit their boat use for watching SRKW as well.	Local NGO's should partner with regional marine engineering schools, local fishing and whale watching fleets to innovate and incent quieting of all boats in the region.	Coordinate regionally with entities responsible for preventing and managing an oil spill emergency	
	I will migrate to a quieter boat components within 5 years or as equipment needs replacement	County and other Parks providers should create additional low impact land-based viewing opportunities for SRKW (and sustainable transportation options for getting to these locations) starting in 2018.	Request research and enforcement methods for SRKW migrate to lower impact drones, to reduce the noise from these vessels as well.	
Redirect viewing activities towards healthy pods (transients) and other charismatic megafauna that are not endangered.	I will avoid purchasing goods that are shipped from overseas.	County should enact a mandatory refugia location for SRKW to feed and rest May-Sept along the deep water wall habitat and Salmon Bank used by Chinook and SRKW on the west side of San Juan Island by May 2018.	Organize to stop harmful Navy activities (sonar, percussion testing, etc.) in the Salish Sea and Pacific Ocean.	
	I will support a mandatory quiet / no boat zones) May-September in the deep water wall habitat and Salmon Bank used by Chinook and SRKW on the west side of San Juan Island	County should require Automatic Identification System (AIS) on all boats in the County by 2022, to help avoid collision with large ships, aid in emergency response, and allow remote monitoring and enforcement of SRKW boater proximity laws.	Work with State, Federal, Tribal, Canadian, and First Nation interests to encourage limiting oil tanker traffic throughout the Salish Sea	
Increase boater awareness and education regarding operating in San Juan Islands Marine Stewardship Area and all marine wildlife	I will slow/stop and provide a red flag / diver down warning to fellow boaters when I spot any whale or other marine mammal near my boat.	County should work with local stakeholders and PWWA to review their operating standards and develop a limited access permit system for SRKW and other commercial whale watching in the County as soon as possible but no later than Spring 2019.	Coordinate vessel traffic slow down efforts with Canada	
	I will support "pay to play" user fees for boats and wildlife viewing visitors to generate dedicated local funds used to protect SRKW	Local NGO's should work with schools to help engage youth in designing more captivating Be Whale Wise boater education programming.		
Create a local funding mechanisms to support Marine Stewardship and SRKW Protection Activities	I will ride the ferry less to reduce my noise footprint from larger vessels	County should enact an Orca conservation fee charged to patrons of commercial tours, including outside the County operators operating in San Juan County waters by Spring 2019. Funds should be restricted in use for SRKW recovery actions.		
		County should enact an annual entrance permit for all boats and vessels entering the San Juan County Marine Stewardship Area to dedicate towards enhanced boater education of MSA/ Orca, boat traffic tracking over time, and enhanced enforcement of marine protection as needed by June 2018.		
		County or NGOs should increase the hydrophone network in key locations to monitor noise levels and responses to various management measures in 2018.		

Prey - Chinook Salmon

Overall Goals	Individual Actions	Local Actions	Beyond	Notes
Maximize Chinook Size (>40+ lbs) to Support SRKW Individual and Pod Food Sharing Needs	I will avoid eating any Chinook (King) salmon until they are no longer listed as an endangered species under the ESA.	County should protect the core deepwater habitats trough along the west side of San Juan Island for large migrating Chinook April 1-October 15 to the Fraser River starting in 2018	Encourage State, Federal, Tribal, Canadian and First Nation interests to further limit ocean and Salish sea harvest of Chinook Salmon until populations have recovered to sustainable (pre 19xxx's levels).	
	I will voluntarily reduce my fishing and not pursue any Chinook until they are no longer listed as endangered.	County should be present at the North of Falcon fisheries meeting and encourage fisheries managers to temporarily reduce Chinook harvest in the County (and elsewhere) in order to rebound SRKW food supply starting immediately.	Legislate a Cascadia wide fisheries gear type and catch size to favor pass through of large mature fish (for SRKW consumption and genetic benefits)	
Increase Adult Chinook Populations (Columbia & Fraser Rivers, Oregon and Washington Coastal Rivers)	I will avoid boating / recreating in core fish habitat areas	County should work with fisheries managers to enact a no fishing zone off Salmon bank (Westside San Juan Island) until Chinook populations recover.	Increase access to river habitat (dam removal) throughout Cascadia on Chinook Salmon producing systems that are expected to be resilient to climate change (and have access to cold water refugia).	
	I will avoid walking beaches wherever/when forage fish spawn	County should protect and increase Chinook forage fish (Sand Lance/Herring) habitat and abundance by implementing at least three projects a year in priority areas of known habitats.	Legislate a permanent ban on new Atlantic Salmon net pens in Washington immediately, phase out existing pens by 2025, and work Canada to phase out in BC by 2025	
Decrease Juvenile Chinook Mortality in the Salish Sea	I will not hard armor my shoreline property	County should map and codify known sensitive and core habitats (eelgrass, kelp, spawning beaches) for marine species in the Marine Stewardship Area to use for boater education and protection efforts by April 15, 2018.	Support regional and Cascadia level partnerships to restore multiple Chinook Salmon populations in a diversity of high priority watersheds to maximize fish availability to SRKW along the PNW Coast (buffer against localized impacts).	
	I will support limits on shoreline development (in water and riparian)	Local NGO's should restore forage fish and salmon rearing habitat on private lands striving for a collective mile per year.	Assert stronger Salmon rights to water and Orca rights to Salmon at State and Federal management forums.	
Increase Salmon Prey (Sand Lance/Herring)	I will contact State and Federal legislators to encourage them to ban Atlantic salmon net pens from the Salish Sea	County should encourage Department of Ecology to permanently ban Atlantic salmon net pens to reduce pollution, disease, and competition risks and encourage others to follow suite in 2018	Increase understanding of how ocean food supply, temperatures, noise or other stressors may be impacting Chinook Salmon survival and growth rates.	
	I will hold the County responsible for protecting our marine habitats - eelgrass, kelp beds, etc. from further development	County should review and adapt recently adopted regulations to support stronger shoreline habitat protection measures (and a funding mechanism to legally defend land use decisions that protect the marine resources) starting in 2020.	Support State or Federal efforts to provide supplemental feeding strategies for SRKW during low Chinook years if they can legal do so.	
Create local funding mechanism for Chinook and Forage Fish Recovery to increase the pace and scale of activities.	I will support regional efforts to improve Chinook habitat (remove dams, restore floodplains, maintain clean water)	Local NGO's should collaborate with restaurants to promote "Give them a Break" campaign to stop Chinook salmon sale to protect SRKW, and launch by May 1, 2018.		
		Local NGO's should work with local and regional Fishing Derby's to alter the "prize" category away from the largest fish, and stop Chinook harvest for prize.		
		County should develop a local funding mechanism to support implementation of projects that directly improve habitats and conditions for salmon, their prey and supporting marine habitat.		

Appendix B - Individual Commitments to Act

Southern Resident Killer Whales are at risk of extinction. Community stakeholders gathered on October 27th at Brickworks in Friday Harbor to discuss what individuals in the community and the County can do to help protect the whales and ensure their survival for future generations.

Personal Commitments, in their own words, from 25 of your neighbors to help protect Southern Resident Killer Whales (SRKW) are shared below.

I will:

- Avoid eating Chinook (King) Salmon
- Dispose of toxic products properly, including pharmaceuticals
- Assist the Marine and Terrestrial Manager and the County to establish relationships with tribal stakeholders
- Educate local and tribal youth on all the issues facing SRKW and what they can do to help
- Follow waterfront rules and suggestions
- Offer my 40 acres of Mitchell Bay to underwater restoration of fish nurseries, get schools involved in the project and student volunteers
- Host a Southern Resident Killer Whale Protection education forum for my neighborhood / community
- Work with NGO's on creating sustainable hygiene, cleaning, herbicides and pesticides – least amount of toxins guide and share with the public
- Not consume Chinook – educate and support Chinook free restaurants
- Contact Skagit County with comments on Tesoro refinery expansion and pressure San Juan County on our suggestions
- Continue to work on climate change and clean energy
- Encourage others to buy an electric vehicle
- Avoid plastics #3-7
- Continue to education and participate in opportunities to increase citizens understanding of SRKW so they can make informed decisions
- Not eat salmon
- Take my own bags to shop
- Avoid overseas goods and purchases
- Maintain my car to avoid pollutants entering the environment
- Read labels and vote with my dollars
- Slow down and avoid SRKW zones
- Not anchor in forage fish habitat
- Follow Oceanwise guidelines
- Not eat Chinook or farmed salmon
- Contact SeaWatch and urge them to update their seafood guidelines
- Ask my employer to be more green
- Stop using plastic straws

- Ask grocery stores to encourage people to bring their own containers for bulk purchases (less packaging)
- Use no plastic bags or containers
- Reduce mail ordering of products
- Ride the ferry less
- Educate neighbors about paper recycling and use less paper
- Increase dialogue with the Marine Resources Committee and San Juan County Council
- Stop fishing for salmon
- Remove plastics from beaches
- Work with Washington State Ferries on their storm water runoff issues
- Consider packaging in my purchases
- Use more reusable containers
- Hold the County responsible for protecting marine habitats and advocate for County to fund salmon programs
- Call my representatives daily until the Snake River Dams are removed
- Write letters to prevent docks and other activities on vulnerable west side where SRKW pass very close to land
- Strongly oppose shooting seals to save salmon (note: *not proposed*)
- Hold County responsible for protecting eelgrass habitats and restoring declining beds
- Not eat Chinook and complain to any restaurant that serves it
- Reduce, reuse, recycle plastics
- Convene a consortium of industry leaders in the energy and commerce sector to promote awareness and inspire commitment as critical stakeholders for marine noise and environmental risk
- Not anchor in less than 30 feet of water
- Work with Puget Sound Partnership to advocate for a *Cascadia-based* task force to help save the SRKW
- Write letters to the local paper about my concern for the lack of salmon and my reasons for not eating Chinook
- Reduce my carbon footprint by switching to an all-electric or hybrid vehicle
- Avoid purchasing goods that are shipped from China
- Reduce light pollution into marine waters to reduce predation of forage fish and juvenile salmon at night

Appendix C- Local Action Priorities List

These tables represent the full expression of the Local Actions identified, refined and scored.

Prey - Chinook Salmon	
Local Actions (<i>Added workshop language</i>)	Dots
County should encourage (<i>Delete: Department of Ecology</i>) State Agencies and Legislature to permanently ban Atlantic salmon net pens to reduce pollution, disease, and competition risks and encourage other Counties to follow suite in 2018.	48
County should (<i>Delete: be present at the North of Falcon fisheries meeting and</i>) encourage fisheries managers to (<i>delete: temporarily</i>) reduce Chinook harvest in the County (and elsewhere) to rebound SRKW food supply starting immediately.	39
<i>(County/ Local NGO's, not defined) should advocate for allotment for prey for Orca (precedent: NOAA has allocated prey for Beluga and other endangered whales)</i>	39
County should protect and increase Chinook forage fish (Sand Lance/ Herring) habitat and abundance by implementing at least three projects a year in priority areas of known habitats.	34
County should review and adapt recently adopted regulations to support stronger shoreline habitat protection measures (and a funding mechanism to legally defend land use decisions that protect the marine resources) starting now (<i>Delete: in 2020</i>). SMP.	33
<i>Chinook buy-back program funding for tribal fish</i>	25
<i>No docks, armoring in or near eelgrass</i>	23
County should (<i>delete: map and codify</i>) monitor and use results of known sensitive and core habitats (eelgrass, kelp, spawning beaches) for to protect marine species (<i>Delete: in the Marine Stewardship Area to use for boater education and protection efforts by April 15, 2018.</i>) Enforcement of SMP, no docks in eelgrass.	15
County should work with fisheries managers to enact a no fishing zone off Salmon bank (Westside San Juan Island) until Chinook/ SRKW populations recover. Add other priority areas as well. Chinook only, not all fish.	13
County should develop a local funding mechanism to support implementation of projects that directly improve habitats and conditions for salmon, their prey and supporting marine habitat.	13
Local NGO's should work with local and regional Fishing Derby's to alter the "prize" category away from the largest fish, and stop Chinook harvest for prize. Goal: Stop harvesting the largest fish.	12
Local NGO's should collaborate with restaurants to promote "Give them a Break" campaign to stop Chinook salmon sale to protect SRKW, and launch by May 1, 2018.	8
County should protect the core deep-water habitats trough along the west side of San Juan Island for large migrating Chinook April 1-October 15 to the Fraser River starting in 2018	4
Local NGO's should restore forage fish and salmon rearing habitat on private lands striving for a collective mile per year.	2
<i>No mooring buoys less than 30 feet depth (also no anchoring)</i>	2
<i>Pinniped survey program</i>	1
<i>Max size, circle hooks. County should advocate for Orca prey and tribal and state to decrease fishing on Chinook in summer</i>	0

Appendix C- Local Action Priorities List

These tables represent the full expression of the Local Actions identified, refined and scored.

Vessel - Boating - Noise	
Local Actions (<i>Added workshop language</i>)	Dots
County should require vessel and boat slow down like the ECHO program in County waters throughout the critical summer months of SRKW use of area. <i>And recreational boater education through licensing and Be Whale Wise.</i>	52
County should enact an Orca conservation fee charged to patrons of commercial tours, including outside the County operators operating in San Juan County waters by Spring 2019. Funds should be restricted in use for SRKW recovery actions. <i>Be clear who receives funding and how to apply.</i>	39
County should work with local stakeholders and PWWA to review their operating standards and develop a limited access permit system for SRKW and other commercial whale watching in the County as soon as possible but no later than Spring 2019. <i>And recreational and Fishing. Max # of vessels max time of viewing</i>	34
County should enact a mandatory refugia location for SRKW to feed and rest May-Sept along the deep-water wall habitat and Salmon Bank used by Chinook and SRKW on the west side of San Juan Island by May 2018.	26
<i>Identify and protect forage hot spots</i>	26
<i>Limit water-based whale watching to transients</i>	20
County and other Parks providers should create additional low impact land-based viewing opportunities for SRKW (and sustainable transportation options for getting to these locations) starting in 2018. <i>Expand whale trails and fund land based educators.</i>	18
<i>Promote land based whale watching / expand number of locations (including within National Parks) and expand Whale Trails</i>	17
County should require Automatic Identification System (AIS) on all boats in the County by 2022, to help avoid collision with large ships, aid in emergency response, and allow remote monitoring and enforcement of SRKW boater proximity laws. <i>Co request that Coast Guard enact as a S.O.C. on AIS</i>	14
<i>County should increase funding for enforcement (focus on enforcement)</i>	13
<i>No docks in core whale areas</i>	13
County or NGOs should increase the hydrophone network in key locations to monitor noise levels and responses to various management measures in 2018.	11
County should enact an annual entrance permit for all boats and vessels entering the San Juan County Marine Stewardship Area to dedicate towards enhanced boater education of MSA/ Orca, boat traffic tracking over time, and enhanced enforcement of marine protection as needed by June 2018.	9
County should assess its boat fleet and migrate to increasingly quiet equipment as they are replaced (define standards) as a matter of County policy. <i>Ensure evidence-based science supported and create incentives.</i>	7
Local NGO's should partner with regional marine engineering schools, local fishing and whale watching fleets to innovate and incent quieting of all boats in the region.	4

<i>Support the petition to NOAA re Setbacks</i>	1
<i>Require commercial licenses for vessels operating in SJI's</i>	1
Local NGO's should work with schools to help engage youth in designing more captivating Be Whale Wise boater education programming.	0
<i>Land based boat flagging</i>	0
<i>Create virtual reality whale watching as an alternative</i>	0

Appendix C- Local Action Priorities List

These tables represent the full expression of the Local Actions identified, refined and scored.

Contamination - Pollution	
Local Actions (<i>Added workshop language</i>)	Dots
County should further improve its land use planning requirements to protect against further degradation of environment, especially marine waters and shorelines. <i>Reduce permitted docks.</i>	58
County should optimize its storm and surface water program to ensure clean waters exist or are improved throughout the County. <i>Wetlands. Proactive restorations, promote LID, raingardens, larger riparian buffers.</i>	49
<i>Banning use of toxic fertilizers and pesticides/herbicides.</i>	48
County and City should promote programs that reduce use <i>and sale</i> of plastics and other toxic products on the islands. <i>Banning plastics, charging for distribution.</i>	46
County should assign some funding from local sales, lodging, and/or real estate excise tax to support conservation actions that will preserve the marine environment and support SRKW recovery, which are major drivers of the local economy.	19
<i>Increase opportunities for non-motorized vehicles (bikes / walking)</i>	16
County should develop projects to remove creosote pilings from the marine environment at County owned facilities by 2022. <i>Also, derelict vessels and marine debris.</i>	15
County should work with Washington State Ferries to fully treat storm water runoff from ferry terminal areas.	12
<i>Oil spill prevention and response. IOSA</i>	12
City of Friday Harbor and other Island sewerage treatment districts should increase their treatment capabilities to the highest standards possible by 2022, and enable septic pumping operators to use the facilities in the fall-spring off-season.	8
<i>Refillable water bottle stations and water fountains</i>	7
County should increase outreach and education on ferries, boats, destination points and internet media on how to minimize visit impacts to the Islands and on SRKW.	5
<i>Promote (education) and police fuel and bilge discharges in marina and public places in County</i>	4
<i>Local grant opportunities for K12 education</i>	4
Comment on the Tresove plant making xylene	0

Prey - Chinook Salmon

Local Actions <i>(Added workshop language)</i>	Dots	Percent	Combo	Notes
County should encourage State Agencies and Legislature to permanently ban Atlantic salmon net pens to reduce pollution, disease, and competition risks and encourage other Counties to follow suite in 2018	48	15%	15%	How - letter from Council?
County should encourage fisheries managers to reduce Chinook harvest in the County (and elsewhere) in order to rebound SRKW food supply starting immediately.	39	13%	26%	CALF group interested in proceeding with this
<i>(County?/ Local NOG's?, not defined) should advocate for allotment for prey for Orca</i>	39	13%		
County should protect and increase Chinook forage fish (Sand Lance/ Herring) habitat and abundance by implementing at least three projects a year in priority areas of known habitats.	34	11%	12%	Needs funding to implement
Local NGO's should restore forage fish and salmon rearing habitat on private lands striving for a collective mile per year.	2	1%		
County should review and adapt recently adopted regulations to support stronger shoreline habitat protection measures (and a funding mechanism to legally defend land use decisions that protect the marine resources) starting now . SMP.	33	11%	23%	Recently Updated SMP. May need alternative process for review of impacts internally at County
<i>No docks, armoring in or near eelgrass</i>	23	7%		
County should <i>monitor and use results of</i> known sensitive and core habitats (eelgrass, kelp, spawning beaches) <i>to protect</i> marine species. <i>Enforcement of SMP, no docks in eelgrass.</i>	15	5%		
<i>No mooring buoys less than 30 feet depth (also no anchoring)</i>	2	1%		
<i>Chinook buy-back program funding for tribal fish</i>	25	8%	8%	
County should work with fisheries managers to enact a no fishing zone off Salmon bank (Westside San Juan Island) until Chinook/ SRKW populations recover. <i>Add other priority areas as well. Chinook only, not all fish.</i>	13	4%	5%	
County should protect the core deep-water habitats trough along the west side of San Juan Island for large migrating Chinook April 1-October 15 to the Fraser River starting in 2018	4	1%		
County should develop a local funding mechanism to support implementation of projects that directly improve habitats and conditions for salmon, their prey and supporting marine habitat.	13	4%	4%	Funding mechanism needed to implement other actions
Local NGO's should work with local and regional Fishing Derby's to alter the "prize" category away from the largest fish, and stop Chinook harvest for prize. <i>Goal: Stop harvesting the largest fish.</i>	12	4%	4%	
Local NGO's should collaborate with restaurants to promote "Give them a Break" campaign to stop Chinook salmon sale to protect SRKW, and launch by May 1, 2018.	8	3%	3%	CALF expressed interest in this - probably a chamber of commerce item
<i>Pinniped survey program</i>	1	0%		
<i>Max size, circle hooks. County should advocate for Orca prey and tribal and state to decrease fishing on Chinook in summer</i>	0	0%		
	311			

Vessel - Boating - Noise

Local Actions <i>(Added workshop language)</i>	Dots	Percent	Combo	Notes
County should require vessel and boat slow down like the ECHO program in County waters throughout the critical summer months of SRKW use of area. <i>And recreational boater education through licensing and Be Whale Wise.</i>	52	17%	17%	
County should enact an Orca conservation fee charged to patrons of commercial tours, including outside the County operators operating in San Juan County waters by Spring 2019. Funds should be restricted in use for SRKW recovery actions. <i>Be clear who receives funding and how to apply.</i>	39	13%	13%	Needed to fund other actions, tied to PWWA work below
County should work with local stakeholders and PWWA to review their operating standards and develop a limited access permit system for SRKW and other commercial whale watching in the County as soon as possible but no later than Spring 2019. <i>And recreational and Fishing. Max # of vessels max time of viewing</i>	34	11%	18%	
<i>Limit water-based whale watching to transients</i>	20	7%		
County should enact a mandatory refugia location for SRKW to feed and rest May-Sept along the deep water wall habitat and Salmon Bank used by Chinook and SRKW on the west side of San Juan Island by May 2018.	26	9%	18%	Need data on conflicts, noise levels, might advance voluntary this year to all
<i>Identify and protect forage hot spots</i>	26	9%		
County and other Parks providers should create additional low impact land-based viewing opportunities for SRKW (and sustainable transportation options for getting to these locations) starting in 2018. <i>Expand whale trails and fund land based educators.</i>	18	6%	12%	
<i>Promote land based whale watching / expand number of locations (including within National Parks) and expand Whale Trails</i>	17	6%		
County should require Automatic Identification System (AIS) on all boats in the County by 2022, to help avoid collision with large ships, aid in emergency response, and allow remote monitoring and enforcement of SRKW boater proximity laws. <i>Co request that Coast Guard enact as a S.O.C. on AIS</i>	14	5%	5%	
<i>County should increase funding for enforcement (focus on enforcement)</i>	13	4%	4%	
<i>No docks in core whale areas</i>	13	4%	4%	Ties to SMP item in other threat categories
County or NGOs should increase the hydrophone network in key locations to monitor noise levels and responses to various management measures in 2018.	11	4%	4%	Need in eagle cove and west side south of Lime Kiln and at Stuart
County should enact an annual entrance permit for all boats and vessels entering the San Juan County Marine Stewardship Area to dedicate towards enhanced boater education of MSA/ Orca, boat traffic tracking over time, and enhanced enforcement of marine protection as needed by June 2018.	9	3%	3%	Ties to boating impact, levels of use and needed funding
County should assess its boat fleet and migrate to increasingly quiet equipment as they are replaced (define standards) as a matter of County policy. <i>Ensure evidence-based science supported and create incentives.</i>	7	2%	2%	
Local NGO's should partner with regional marine engineering schools, local fishing and whale watching fleets to innovate and incent quieting of all boats in the region.	4	1%	1%	
<i>Support the petition to NOAA re Setbacks</i>	1	0%		
<i>Require commercial licenses for vessels operating in SJI's</i>	1	0%		
Local NGO's should work with schools to help engage youth in designing more captivating Be Whale Wise boater education programming.	0	0%		
<i>Land based boat flagging</i>	0	0%		
<i>Create virtual reality whale watching as an alternative</i>	0	0%		

County should develop projects to remove creosote pilings from the marine environment at County owned facilities by 2022. <i>Also derelict vessel and marine debris.</i>	15	5%	5%	Proposed to be added to near term action proposal. Already fund derelict vessel program and beach cleanups.
<i>Oil spill prevention and response. IOSA</i>	12	4%	4%	
City of Friday Harbor and other Island sewerage treatment districts should increase their treatment capabilities to the highest standards possible by 2022, and enable septic pumping operators to use the facilities in the fall-spring off-season.	8	3%	3%	
<i>Refillable water bottle stations and water fountains</i>	7	2%	2%	This is possible with LTAC and PFAP funding from county now
County should increase outreach and education on ferries, boats, destination points and internet media on how to minimize visit impacts to the Islands and on SRKW.	5	2%	2%	
<i>Promote (education) and police fuel and bilge discharges in marina and public places in County</i>	4	1%	1%	
<i>Local grant opportunities for K12 education</i>	4	1%	1%	
Comment on the Tersova plant making xylene	0			
	303			