



SOUTHERN RESIDENT KILLER WHALE COMMUNITY WORKSHOP 2.0

Report to San Juan County Council

December 6, 2018

San Juan County Marine Resources Committee

Public Works Environmental Resources Division



Southern Resident Killer Whale Community Workshop 2.0

For

San Juan County Council

Frances C. Robertson

Kendra Smith

Public Works Environmental Resources Division

December 6, 2018

Workshop Sponsors



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Introduction

San Juan County Marine Resources Committee and San Juan County Environmental Resources Division hosted the second annual Southern Resident killer whale (SRKW) community workshop on December 6th, 2018. The purpose of this workshop was to update and engage community members in meaningful dialogue around the efforts to support SRKW recovery that have been underway since the first community workshop held in October 2017. The workshop's presentations and discussions focused on state, local, and individual efforts.

Sixty-two Individuals participated in the workshop. These individuals represented a variety of local and regional interest groups including state and local government, tourism, eco-tour operators and naturalists, non-profits, research scientists, the Northwest Straits Initiative (including local and regional MRC members) and members of the public. Approximately a quarter of the attendees had attended the 2017 '*Southern Resident Killer Whale Protection Stakeholder Workshop*'. Despite targeted outreach effort both fishing interests (recreational and commercial) and tribal interests were absent from the workshop, mirroring the same community sectors that were missing from the 2017 workshop. A list of participants is included in Appendix 1.

Workshop Goals

The goals of the workshop were built around three key areas:

1. Build momentum from ideas generated and priority actions agreed to at the 2017 SRKW Community Workshop.
2. Update participants on the status of:
 - Priority local actions identified at the October 2017 SRKW Community Workshop.
 - Local SRKW recovery projects, including San Juan MRC, San Juan County, and other local projects.
 - State SRKW recovery initiatives, including SRKW Task Force recommendations, and their relationship to local efforts.
 - Relevant research results for SRKW recovery and what it means going forward.
3. Host facilitated dialogue aimed at:
 - Advancing understanding of authorities for SRKW recovery, including what San Juan County's authorities are (and are not).
 - Highlighting and identifying individual commitments to act.
 - Gleaning input on local efforts and role/opportunities for San Juan community.

Summary of presentations

The workshop saw presentations from 12 speakers, 7 of which were MRC members or County staff. Topics included the Governor's Task Force recommendations, local SRKW recovery initiatives, forage fish recovery, and a summary of current scientific efforts. The scientific efforts include the identification of SRKW foraging hotspots, assessments of the underwater acoustic environment in traditionally important foraging areas for the whales, and the economic importance of SRKW. The day's presentations are detailed in the agenda packet in Appendix 2. Due to a last minute scheduling conflict, Patti Gobin was unable to attend the workshop and give the Tribal welcome for the attendees. We look forward to hosting Patti Gobin in the future.

Progress on local priority actions identified in 2017 workshop

The 2017 workshop resulted in a combination of personal and local actions as well as actions determined to be beyond the County's jurisdiction related to the three key threats identified for SRKW –Prey, Contaminants, and Vessel Noise/Disturbance. MRC Chair Karin Roemers-Kleven summarized these actions in relation to the recommendations put forth by the Governor's State Task Force. Of the 31 main actions identified by members of the community at the 2017 workshop, 30 of these were adopted in some form by the Task Force and represented in the package of recommendations presented to the Governor on December 16th (Appendix 3). This highlights the importance of the community input during the 2017 workshop to the recovery efforts for SRKW both locally and at the State level.

SRKW WA State Task Force update

Lovel Pratt, San Juan MRC member provided an update SRKW WA State Task Force (TF), and summary of the key recommendations that relate to San Juan County. The November 2018 recommendations that relate to San Juan County include (TF core areas in parentheses):

- Increase funding for shoreline protection and restoration projects (Prey).
- Apply and enforce laws on the books (Prey, Noise, and Toxins).
- Develop incentives for shoreline property owners (Prey).
- Establish a go-slow bubble around the whales (Noise).
- Establish a limited entry permit system for commercial whale watching (Noise).
- Suspend watching SRKW for 3 – 5 years (Noise).
- Create a fleet of new quieter hybrid-electric capable ferries (Noise).
- Reduce the threat of oil spills which includes the stationing of an Emergency Response Towing Vessel (ERTV) in the San Juans (Toxins).
- Coordination between WA and Canada on Canadian-based projects that increase vessel traffic (and therefore increase vessel traffic impacts to SRKW), (Noise).

The TF is moving now moving into its second year and a Final Report from the Task Force will be issued in October 2019.

Local actions in 2018

Members of the San Juan MRC and local non-profit groups provided brief updates on actions that have been occurring locally. Examples of local actions that have been undertaken this year to aid the recovery of the SRKW included:

- The initiation of the whale warning flag pilot project.

- Local involvement in the Governor’s SRKW Task Force resulting in a comprehensive package of recommendations, including education and outreach for better boater behavior in the vicinity of whales.
- The initiation of the Plastic Free Salish Sea campaign, addressing county wide issues surrounding clean water, including the removal of derelict vessels.
- Forage fish recovery efforts.
- The on-going efforts of the eco-tour operators (including their hope to request an allocation of Chinook salmon for SRKW at the 2019 North of Flacon).

Current research efforts

Local and regional scientists from SMRU Consulting, Oceans Initiative, and the County presented on a few of the local research projects currently underway. Dr. Erin Ashe from Oceans Initiative introduced the importance of good spatial planning for exploring where protected areas can do the most good for killer whales at the least impact and cost to user groups. She highlighted the need to identify where whales are catching salmon with a higher-than-average success rate and protect these sites because killer whales are more susceptible to disturbance from the presence of vessels when they are feeding, compared to when they are engaged in other activities such as traveling or resting. Ashe concluded her presentation by underscoring the importance of layering scientific data with user-group social values in an objective and transparent process for marine spatial planning to be successful in helping the recovery of SRKW.

Dr. Jason Wood and Jesse Turner from SMRU Consulting presented their ongoing work to monitor underwater noise levels, SRKW occurrence, and anthropogenic noise sources in SRKW habitat off the west side of San Juan Island. These efforts included the long-term monitoring site at Lime Kiln Point State Park where they have been recording ambient acoustic data 24/7 since February 2016 with a calibrated hydrophone. This system is deployed at 23 m depth and cabled to shore. Their second monitoring site is Salmon Bank where they deployed a temporary autonomous buoy with a calibrated hydrophone suspended at 10 m depth in 30 m of water. This system ran 24/7 from August 3, 2018 to October 4, 2018. At both Lime Kiln and Salmon Bank vessels were present for just over 30% of the time (32.5% at Lime Kiln and 34% at Salmon Bank), but SRKW were present for 3.1% of the time at Lime Kiln compared to only 0.88% of the time at Salmon Bank.

Marta Green, San Juan County’s local integrating organization’s (LIO) Puget Sound Recovery Coordinator shared updates on the MRC’s oil spill risk consequences assessment and the current economic analysis of SRKW that is being conducted by Sea Doc Society. A large oil spill has been ranked as a high priority threat to San Juan County by the LIO. At present the key strategies in the County include promoting spill prevention measures, including an emergency response towing vessel (ERTV) stationed in the San Juans, and supporting increased protection of marine water quality and habitat for threatened and endangered species from vessel traffic.

In 2016, the San Juan MRC submitted a Near Term Action proposal for a comprehensive Oil Spill Risk Consequences Assessment and in early 2018 the San Juan LIO selected the Near Term Action proposal for locally-directed \$100,000 funding. Later in 2018, the Governor’s SRKW Task Force recommended that the *‘legislature should enact legislation to reduce the risk of oil spills in Puget Sound, and that this*

legislation should support the requirement for a stationed ERTV in a location to minimize response time in Haro Strait and other navigation lanes with the highest tanker vessel traffic....' San Juan County, on behalf of the MRC contracted with economic consultants to perform an Oil Spills Consequences Assessment for San Juan County (Earth Economics) and to evaluate the cost of an ERTV (Northern Economics), these reports were completed in late December 2018. Simultaneously, Earth Economics (for Sea Doc Society) has conducted a study to determine the contributions of SRKW to recreation and tourism to determine the value of ecosystem services. This report is due to be completed in January 2019.

Afternoon breakout sessions

Three breakout groups addressing Individual Commitments to Act, County/Community-level Actions, and State/Federal Actions were formed. The discussions within each group centered on how we as individuals or as a community can help advance actions throughout the state and beyond, whether that be through a ripple effect of individual actions or by helping to advance actions at the State and Federal level.

Breakout Group #1 (Individual Commitments to Act)

This group focused on some key individual actions that were proposed during the 2017 workshop. These included choosing not to consume Chinook salmon, not disturbing forage fish habitat, and reducing reliance on plastic packaging.

The group suggested both individual level and community level actions to support these individual commitments. For example, when choosing not to consume Chinook salmon the group suggested that more education would be helpful to support their communication with family and friends about why they made this choice. Examples of education included having materials/a tool to help explain why we choose not eat salmon/farmed salmon. The group strongly endorsed the need for positive messaging and feedback surrounding sustainable fisheries.

- Other examples of individual and community level actions related to reducing our reliance on single use plastics and excess packaging including: Bring your own containers.
- Use social pressure for a cultural shift with positive messaging.
- Build relationships with local businesses, encourage more “orca friendly branding” – e.g. EQPD bags – supports a small business and supports a more sustainable life style that in turn helps our ecosystems.
- Have the courage to start the conversation and learn best practices for successful engagement.
- Request reusable bags be made available for purchase at local stores.
- Develop a common slogan for why individuals, business etc. don’t want to take a plastic bag – e.g. ‘Plastic Free Salish Sea’ and produce buttons/stickers with this slogan.
- Educate community on which plastics are recyclable, for example with the MRC proposed Garbology workshop.

For all individual commitments, the group discussed the local and regional/statewide actions necessary to create a ripple effect that will make a difference for SRKW and the health of the Salish Sea. These included:

- Have a presence with dockside talks, at farmers markets, and other community events to engage with locals and visitors. Possibly have promotional materials like stickers?
- Encourage use/follow local regulations e.g. re. plastic bags and Styrofoam.

- Have more collaboration with local STEM initiatives in the schools etc.
- Volunteer in local activities, projects, initiatives.
- Share knowledge with communities across the state.
- Start a state wide campaign for 'Orca Friendly' restaurants.

Breakout Group #2 (County/Community Actions)

This group focused on local community-level actions within San Juan County, which scored high in the previous workshop but had not advanced significantly in the last year. These actions included a brief discussion of the status of the Island Oil Spill Association (IOSA), addressing how to advance SRKW and Chinook refugia on the westside of San Juan Islands, policy letter development regarding fisheries management around the Islands and for SRKW, and the need for a long term funding mechanism to support SRKW conservation efforts here in the County. The following is a summary list of the items discussed:

IOSA Status

IOSA is currently no longer the Primary Response Contractor for oil spills in San Juan County. This is concerning to participants, who discussed:

- Current funding issues and options to restore service.
- Questioned the County role/ ability to support this nonprofit organization.

Westside Management Options (SRKW and Chinook Refugia)

A marine spatial planning process is proposed by the County for 2019 along the westside with a grant from NFWF. The discussion was focused on how to ensure the process would succeed, and included the following topics:

- Westside knowledge based on "old data" of patterns of use; are they still valid?
- Collecting "new data" regarding behavioral response around boats, the underwater soundscape in historically relevant foraging areas; explaining how this data would be fed into the effort.
- Updating and consolidating information on areas conducive to foraging; what does a foraging area/space mean in terms of restrictions?
- The need for management options to be dynamic, not static in response to the whales and Chinook.
- Best practice will likely have to have both spatial and temporal responses.
- Be careful not to call it a westside "closure".
- Secure buy-off on concept/process first before sharing maps of resulting input.
- Be sure to articulate enforcement of any options proposed– State vs Local.
- Make sure to include buy-in from visitors/residents.

Policy Letters

With no jurisdictional authority over the marine resources and fisheries in the County, the main mechanism of influence is through policy letters from County Council to the regulating authorities. The group was particularly interested in identifying how to address an allocation of Chinook for SRKW and how to integrate protections for other marine species as well. The following topics were discussed:

- Would need to work with the North of Falcon process, and co-managers, including the tribes to impact any changes.
- Need data to justify a need for change in any allocation or state/federal management decision – discussed the Yellow Island example to limit harvest to protect rock fish and other species.

- Important to identify the linkages/overlap with rockfish/salmon/SRKW to show bang for buck in marine conservation planning and any suggested limitations.
- Fraser panel (controls commercial fishing in this area) vs North of Falcon (controls recreational, terminal fisheries in Puget Sound and Pacific).
- Discussion of tribes' resistance to harvest reductions due to threat to Treaty rights that have a 50/50 harvest surplus.
- Acknowledgement that NOAA trumps all if they pull the jeopardy card under the ESA – possible for both Chinook and SRKW; Canada would need to do the same for Fraser River Chinook– target NOAA under ESA.
- Shift fisheries towards Pt. Roberts could be negotiated with Fraser River Panel; look at shifting areas and temporal closures to achieve goal.
- Bycatch is part of Tribal allocation.
- Need the fisheries details (what is caught where and when) from WDFW; schedule time with WDFW to better understand area management.
- Focus on NOAA – ask staff for guidance on how to approach, through what channels.
- Letter above NOAA to trickle down; invitation to participate in dialogue.
- Letter to Governor/Task Force supporting altered harvest strategy until fisheries recovery.

Funding Mechanism

With limited time, the group briefly discussed possible funding mechanisms to advance SRKW efforts within the County, including:

- Lodging tax – dedicated / tie to SRKW value to tourism
- Slip Tax

Breakout Group #3 (Federal/State Actions)

There was strong enthusiasm/interest from the San Juan Community for helping to advance a wide range of state/federal actions related to SRKW recovery. The following topics were those that breakout group participants elected to discuss. Each topic area reflects actions that breakout group participants think that the San Juan community should take to advance the topic at the state/federal level.

Salmon allotments – quota for SRKW – North of Falcon Negotiations (see Group 2 as well)

- Speak out in support of salmon allotments at an upcoming (December 13/14) North of Falcon meeting with the Fish and Wildlife Commission.
- Provide public comments during the North of Falcon process; have conversations with both WDFW and NOAA.
- Work to secure support from Northwest Straits Commissioners.
- Work to secure support letters from all other MRCs.

Snake River Dam removal

- Work with the MRC and County to draft a letter to the Governor in support of SRKW Task Force recommendation for a Snake River Dam stakeholder engagement process. Push for an immediate start to this process (e.g., Year 1 of recommendation implementation, versus Year 2, as is currently the case).
- Participants felt the County should support groups in favor of removing dams.

ERTV

- Keep pressure on San Juan County Council to push WA State to implement Task Force recommendation on this item, using state money for the first 2-3 years.
- MRC – Coordination push up via their elected officials.
- Ask visitors' bureau to review and report and possibly support MRCs efforts.

SRKW viewing suspension

- Write letter to Governor in support of Task Force recommendation regarding stakeholder process to engage them in solutions.

Next Steps

As we head into 2019, the San Juan County MRC and Environmental Resources Division of Public Works will continue their efforts towards supporting SRKW recovery. This workshop will help to shape some of the local actions going forward, especially in terms of prioritization. The following projects will continue through 2019:

- The Whale Warning Flag Pilot Study.
- Education and Outreach surrounding boater behavior and Be Whale Wise.
- Supporting local county interests at the Governor's SRKW Task Force.
- Continuing to expand the Plastic Free Salish Sea Campaign.
- Continuing efforts to address oil spill prevention and improved response resources.
- Continuing efforts to conserve and improve water quality and nearshore habitats around the Islands.
- Implement PIAT II prioritized list of projects for salmon recovery efforts in the County.
- Continuing to push for local nearshore habitat restoration and forage fish recovery efforts, including local volunteer involvement.
- A priority for the MRC education and outreach effort is to ensure that the public has access to best available science, so to prevent proliferation of misinformation.

In addition to continuing these efforts, the MRC and Environmental Resources Division staff will be advancing several new elements including:

- Seeking funding to support the hydrophone installation at the Southern end of San Juan Island to better monitor the noise impacts of smaller vessels in SRKW prime foraging habitats.
- With the support of a grant from the National Fish and Wildlife foundation, the County will facilitate local community dialogue around marine conservation planning. This effort will help define management options for defensible Chinook and SRKW refuge area(s), in order to protect critical foraging hot spots for the SRKW off the west coast of the San Juan Islands, using scientifically sound methods, social values, and an open and transparent engagement process.
- Seeking support of County Council to pursue a local funding strategy for marine resources and SRKW.
- Seeking County Council direction on local feedback into the Task Force process, Snake River dams, and fisheries management policy, as deemed appropriate.

Acknowledgements

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

- Hilary Wilkinson, Veda Environmental for facilitating the overall event and the State breakout session.
- San Juan County and the Northwest Straits Initiative for providing sponsorship of the workshop. Funding from the Northwest Straits Foundation was made possible with a National Fish & Wildlife Foundation grant funded by Shell Oil Company, and U.S. Fish and Wildlife Service. Northwest Straits Commission MRC funding is made possible through the Puget Sound Partnership and US Environmental Protection Agency.
- The MRC members for their support in planning and preparing the event and presenting: Karin Roemers-Kleven, Christina Koons, Lovel Pratt, Jeff Friedman, Ivan Reiff, Phil Green, Jeff Dyer, Laura Jo Severson, Kendra Smith, Carl Davis, Terry Turner and Megan Dethier.
- Environmental Resources staff: Kendra Smith (Team Leader), Frances Robertson (Workshop Coordinator), Marta Green (presentation and general support).
- All user groups that we discussed SRKW issues with in 2017.
- San Juan County Council, Rick Hughes, Jamie Stephens and Bill Watson for their ongoing support of SRKW recovery efforts in the County.
- San Juan County Manager Mike Thomas.
- Cover photo by Sandy Buckley.



Appendices

Appendix 1: Workshop attendees list

Name	Affiliation
Pete Ancich	PWWA
Mark Anderson	Orca Relief - Non Profit
Caroline Armon	Non Profit
John Aschoff	The Whale Museum - Non Profit
Erin Ashe	Oceans Initiative – Non Profit/Science
Nathan Biletnikoff	NWSI/Industry
Ben Bout	Citizen
John Boyd	Naturalist – Eco Tours
Hobbes Buchanan	Non Profit
Stephanie Buffum	Friends of the San Juans - Non Profit
Cathleen Burns	Citizen
Sandra Chalk	Citizen
Erin Corra	FOLKS - Non Profit
Carl Davis	MRC
Megan Dethier	MRC
Jeff Dyer	MRC
Laura Ferguson	Puget Sound Partnership
Jeff Friedman	MRC/PWWA
Deborah Giles	Wild Orca- Non Profit
Brian Goodremont	PWWA
Marta Green	San Juan County
Phil Green	MRC
Chris Guidotti	WA State Parks
Jason Gunter	Eco tour - Kayak
Nina Hall	Naturalist – Eco Tour
Cindy Hansen	Orca Network - Non Profit
Drew Harvell	Friday Harbor Labs
David Howitt	PWWA
Jeanne Hyde	Naturalist
Anna Jarrell	Citizen
Christina Koons	MRC
Barbara Marrett	Tourism
Tracie Merrill	The Whale Museum
Russ Mullins	WDFW
Jess Newley	Friends of the San Juans- Non Profit
Jennifer Olson	The Whale Museum
Dana Oster	Northwest Straits Initiative

Lovel Pratt	MRC/Friends of the San Juans
Ivan Reiff	MRC/PWWA
Frances Robertson	San Juan County
Karin Roemers-Kleven	MRC
Francie Rutherford	Citizen
April Ryan	Citizen
Laura Severson	MRC
Mike Sharadin	Citizen
Taylor Shedd	The Whale Museum – Non Profit
Kendra Smith	San Juan County
Heather Spaulding	San Juan Journal
Chandra Stone	Wolf Hollow- Non Profit
Janet Thomas	Orca Relief - Non Profit
Jesse Turner	SMRU Consulting - Science
Terry Turner	MRC
Val Viers	Scientist
Traci Walters	Naturalist – Eco Tour
Tina Whitman	Friends of the San Juans - Non Profit
Hilary Wilkinson	Facilitator
Rob Williams	Oceans Initiative – Non Profit/Science
Sarah Winter	Citizen
Tim Winter	Citizen
Jason Wood	SMRU Consulting - Science
Kelly Yelverton	Eco Tour – Kayak

Appendix 2: Agenda & Presenter Biographies

Agenda

Southern Resident Killer Whale (SRKW) Community Workshop 2.0

Thursday, December 6, 2018

10:00 AM to 5:00 PM

Brickworks, Friday Harbor

Workshop Purpose:

Update and engage community members in meaningful dialogue about state and local, including *individual*, efforts underway to support SRKW recovery.

Workshop Objectives:

1. Build momentum from ideas generated and priority actions agreed to at 11/17 SJ Co SRKW Community Workshop*
2. Participants learn about the status of:
 - Priority local actions identified in October 2017 SRKW Community Workshop
 - Local SRKW recovery projects, including San Juan MRC, San Juan County, and other local projects
 - State SRKW recovery initiatives, including SRKW Task Force recommendations, and their relationship to local efforts
 - Relevant research results for SRKW recovery and what it means going forward
3. Participants will engage in facilitated dialogue aimed at:
 - Advancing understanding of authorities for SRKW recovery, including what SJ County's authorities are (and are not)
 - Highlighting and identifying individual commitments to act
 - Gleaning input on local efforts and role/opportunities for San Juan community

10:00 Opening – Tribal Welcoming Patti Gobin, MRC and Tulalip Tribe

10:20 Welcome / Introductions

- Welcome/introductions - Kendra Smith, Environmental Resources Manager, San Juan County
- Review workshop purpose/context
- Agenda review
- Icebreaker

10:40 Report on Progress of Local Actions* to Recover SRKW - Karin Roemers-Kleven (MRC Chair) and Christina Koons (MRC Vice-Chair)

- Role of MRC
- Report card on progress of priority local actions identified at 11/17 Workshop
- Relationship between priority local actions and SRKW Task Force recommendations / next steps
- Q/A; Facilitated discussion

11:00 SRKW State Task Force Update Lovel Pratt, MRC and Friends of the San Juans

- Review SRKW Task Force Recommendations pertinent to San Juan County
- Facilitated Discussion (10-15 min.)

11:30 Ignite-style Presentations* on Current San Juan MRC Projects that Support SRKW Recovery

- Whale Warning Flag Project – Frances Robertson, San Juan County
- BWW Awareness Blitz – Seattle Boat Show Jan 25-Feb 2 - Taylor Shedd, Soundwatch
- Requesting allocation of Fish for SRKW at North of Falcon – Jeff Friedman, MRC & PWWA
- Facilitated Discussion (10-15 min.)

12:00 Lunch / Networking

1:00 Ignite-style Presentations cont'd.

- Forage fish recovery efforts – Tina Whitman, Friends of the San Juans
- Plastic Free Salish Sea Bag, straws, and other Trash – Karin Roemers-Kleven, MRC
- Keeping our waters clean – runoff control and derelict vessels – Kendra Smith, MRC
- Facilitated Discussion (10-15 min.)

1:30 What Does the Latest Research Say About the SRKW?

- Presence and use of foraging hot spots – Erin Ashe, Oceans Initiative
- Acoustic budget patterns – Jason Wood and Jesse Turner, SMRU Consulting
- Economic valuation of SRKW / oil spill risk consequences – Marta Green, San Juan County
- Facilitated discussion (10 min)

2:15 Break

2:30 Looking Ahead: Facilitated Breakout Sessions

- What else would participants like to see happening on this topic at a local level
- Revisit: Individual commitments to act
- What else should we be focusing on?

3:45 Large Group Discussion/Report Out

5:00 Adjourn

Workshop Speakers

Erin Ashe, Phd. *Oceans Initiative*

Erin is the Executive Director and co-founder of Oceans Initiative, a marine research and conservation non-profit based in the Pacific Northwest. Her research is motivated by a desire to use science to make tangible conservation impacts. Erin's research interests include mark-recapture, ecology, conservation biology, demography, acoustics, population viability analysis, and marine protected areas. She studies the ecology of Pacific white-sided dolphins in the Pacific Northwest using photo-identification and acoustics to learn more about the conservation status of these fascinating dolphins. Erin received her PhD and MRes from St. Andrews University in the Sea Mammal Research Unit, and her B.Sc from Western Washington University. Erin also participates in the Governor's SRKW State Task Force Vessels Working Group

Jeff Friedman, MRC and Pacific Whale Watch Association

Jeff joined the MRC in 2018. He is a whale watch captain and co-owner of Maya's Legacy Whale Watching in Friday Harbor. He is a keen naturalist and whale advocate. Jeff is currently the US President of the Pacific Whale Watch Association and a member of the Governor's SRKW State Task Force. Jeff is also a current member of the County's Salmon Recovery Citizens Advisory Group.

Marta Green, San Juan County Environmental Resources Division

As our San Juan local integrating organization's Puget Sound Recovery Coordinator, Marta works with numerous local entities and tribal partners to collaboratively develop and implement local ecosystem protection and recovery strategies. The local strategy for protection from a large oil spill is the organization's highest priority. Before moving to San Juan Island in 2015, Marta spent 30 years with a large engineering and construction company serving as Chief Environmental Scientist and Project Director. She has managed environmental remediation projects for the oil industry, within EPA's Superfund and Army Chemical Weapons Threat Reduction programs, and at domestic and international nuclear sites.

Christina Koons, MRC

Christina joined the MRC in 2018 and now serves as the committee's Vice Chair. Christina is a former developer of the historic commercial and residential properties in Olympia and Tacoma, and the environmentally forward residential community Eagle Lake on Orcas Island. She is currently active in noise pollution advocacy and serves as a member of the NW Regional Council for the National Park Conservation Association. Christina is also a current member of the County's Salmon Recovery Citizens Advisory Group.

Lovel Pratt, MRC and Friends of the San Juans

Lovel Pratt joined the San Juan MRC in 2018. She is currently the Marine Protection Program Director at Friends of the San Juans where she advocates for safe shipping and oil spill prevention in the transboundary Salish Sea. Lovel is a member of the Governor's Southern Resident Killer Whale Recovery and Task Force's Vessels Working Group and the environmental representative on the Puget Sound Harbor Safety Committee. Lovel served on the VTRA (Vessel Traffic Risk Assessment) 2010, and the VTRA 2015 Working Groups. Lovel is also a current member of the County's Salmon Recovery Citizens Advisory Group.

Frances Robertson, PhD. MRC staff and San Juan County Environmental Resources Division

Frances is the San Juan County Marine Program Coordinator and administers the San Juan County MRC. has over 15-years' experience in marine mammal science where her research has focused on the impacts of human activities on cetacean populations, including the effects of vessels on Northern and Southern Resident killer whales. She is a long-time collaborator on the NE Pacific Minke whale project, and has also served as an expert witness for tribal entities in Washington State. Frances is part of the Governor's SRKW State Task Force Vessels Working Group.

Karin Roemers-Kleven, MRC

Karin joined the MRC in 2018 and now also serves as the MRC Chair. Karin and her husband moved to Friday Harbor in 2015 and since then she has devoted over 200 hours in training to better understand the environment that the SRKWs depend on. She seeks avenues to educate other people and inspire them through storytelling to change their impact on the ecosystem. She regularly volunteers for FOLKS, the Stranding Network, Soundwatch and the Center for Whale Research. Karin is an RN and wound care specialist who consults with hospitals nationwide. Karin is also a current member of the County's Salmon Recovery Citizens Advisory Group.

Taylor Shedd, *Soundwatch and the Whale Museum*

Taylor is the coordinator of the Soundwatch Boater Education Program. He recently joined Soundwatch and the Whale Museum from the Scripps Institute of Oceanography where he completed a Master's degree in Marine Biodiversity and Conservation with a focus on the foraging behavior and management of the Southern Resident Killer Whales. Taylor has also worked as a scientific diving instructor, sailing captain and hatchery technician at a local salmon hatchery. He enjoys his tiny house on San Juan with his fiancée Hillary and mini Australian shepherd Ruby.

Kendra Smith, *MRC and San Juan County Environmental Resources Division*

Kendra is the San Juan County Environmental Resources Manager and a member of San Juan County MRC. Kendra's expertise lies in restoration ecology and she holds an MS in Ecosystems Management. Over her career she has engaged local stakeholders, Federal, State, and regional regulators and politicians in the development and implementation of large scale policies, regulations, and plans (County-wide riparian buffer rules, floodplain management and storm water standards, the Healthy Streams Plan and Rogue Basin Restoration Action Plan). She has also implemented and monitored process-based watershed restoration with public and private landowners to help recover wild salmon and other native species in Oregon over the last 25 years. Kendra participates in the Governor's SRKW State Task Force Prey Working Group.

Jesse Turner, *SMRU Consulting North America*

Jesse is a field engineer for the Coastal Acoustic Buoy (CAB) project at SMRU Consulting. He received his BS from the University of Washington's School of Oceanography in 2016. His senior thesis used hydrophones on the Cabled Array and NEPTUNE Observatory in the northeast Pacific Ocean to quantify variations in fin whale vocalizations. Additional research includes biogeochemical cycling offshore industrial coastlines in Qatar as well as assisting on cruises deploying the University of Washington's Regional Scale Nodes Cabled Array on the Juan de Fuca plate in the Northeast Pacific. After spending a year studying methane emissions from Alaskan peatlands, he is happily circling back to cetacean science.

Tina Whitman, *Friends of the San Juans*

Tina is the science director at Friends of the San Juans. She has managed shoreline research, restoration, and protection program at Friends since 2002. Following her Masters of Science with a focus on the application of biological data to improve land management she spent 25 years in habitat conservation in the northeast and the northwest. Tina served 8 years on the San Juan County MRC and is a current member of the County's Salmon Recovery Technical Advisory Group.

Jason Wood, PhD. *SMRU Consulting North America*

Jason is the Operations Manager for SMRU Consulting North America. He is an acoustician with over 15-years' experience studying acoustic ecology and the potential impact of anthropogenic sound on marine mammals. In his work with SMRU Jason is responsible for the maintenance and data analysis of the Lime Kiln hydrophone, which supports the ECHO vessel slow down program funded by the Port of Vancouver in British Columbia, Canada. Jason is also leading research efforts to develop and deploy a real time passive acoustic monitoring buoy –the Coastal Acoustic Buoy (CAB), which this project plans to employ for the pilot effort.

Appendix 3: Updated score card.



San Juan Islands Southern Resident Killer Whale Community Action Update December 2018

Priority Actions Identified By the Community at SRKW Workshop	Progress to Date	Threat Category	Score	Status	Task Force Immediate Actions	Task Force Recommendations	Other Related Actions
Restoration Projects			51				
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.	County secured approval for funding from Salmon Recovery Funding Board for nearshore projects (Agate beach, MacKaye Boat Launch) to remove armor and help improve forage fish spawning habitat.	Salmon	34		2, 7, 9	1, 2, 3, 4, 5, 15, 16	
Local NGO's should restore forage fish and salmon rearing habitat on private lands striving for a collective mile per year.	Friends of San Juans is actively pursuing these types of projects, but need funding and more landowners willing to remove armor.	Salmon	2		7	1, 2, 3, 4, 5	

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>	Creosote piling removal proposed as near term action in Puget Sound Action Agenda for funding consideration. Fund derelict vessel program with prevention monitoring and removal (nine removed this past year). Support annual beach and roadside cleanups (in spring and fall).	Contamination	15		9	30, 33	
County Code Update on MSA			56				
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	Mapped area as a Whale and Salmon Sanctuary (Voluntary No Go Zone), extended from Eagle to Cattle Point to align with PWWA guidelines. Worked with stakeholders to develop language around its intent and extent.	Salmon	4		1, 2, 7	3, 5, 15, 17, 18, 19, 20, 26, 27, 28	
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.	A voluntary no go zone (salmon and SRKW sanctuary) 1/4 mile offshore from Mitchel Bay to Cattle Point was recognized by WDFW. Need data on conflicts, noise levels in the key forage areas -see hydrophone project to determine if additional buffer or speed reduction is appropriate.	Boat Noise, Salmon	26	Needs funding	1, 2, 7	3, 5, 15, 17, 18, 19, 20, 26, 27, 28	

<i>Identify and protect forage hot spots</i>	Special forage zones off Eagle and Pile Point need evaluation. Prepared a NFWF grant to map and document foraging for areas of Eagle to Pile Point, SNC Park, and Mitchell Point, others.	Boat Noise, Salmon	26	Needs funding	2, 7	2, 4, 5, 15	
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>	The MRC worked with its counterparts in Skagit and Whatcom Co to distribute Be Whale Wise and the Whale Warning Flag. County has applied for and secured two grants (for \$27,000) to advance the Whale Warning Flag pilot. Encouraged WDFW to add questions to boater ed test (in Orca TF recommendations).	Boat Noise	52		1	21	
Community Drive			31				
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>	MRC and local fishers need to offer suggestions on how to modify Derby. Derby occurs for smaller blackmouth Chinook in winter - and is less likely to conflict with SRKW feeding stock.	Salmon	12		1, 6, 7	1, 2	Fishing derbies in San Juan County are focused on hatchery produced blackmouth winter Chinook and thus timed to coincide when these fish are the most plentiful in the islands –during the fall and winter. Thus the derbies target a fish not

							generally targeted by SRKW and occur at a time of year when SRKW are less likely to be present. The consequence of this is limited impact on SRKW.
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.	Has been picked up by some restaurants and local groups - No fish, no Blackfish.	Salmon	8		6	1, 2	
County or NGOs should increase the hydrophone network in key locations to monitor noise levels and responses to various management measures in 2018.	Need to establish hydrophone near salmon bank south San Juan Island and Stuart Island. Staff worked with acoustic experts to develop a project proposal to fundraise for installation of a hydrophone around south San Juan to gather data on underwater noise associated with smaller vessels and fishing fleets, to help inform management options.	Boat Noise	11	Needs funding	1, 2, 6, 7	17, 21, 22, 23, 25	
Land Based Options			35				

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>	Prepared project proposal to compete analysis of site locations for land based viewing and infrastructure needs. Submitted to Orca Task Force for consideration and funding. Park providers are planning facility upgrades to accommodate more land based viewing over time.	Boat Noise	18	Needs funding	6	28	Existing land based naturalist programs sponsored by local nonprofits could be expanded to increase viewing and education opportunities
<i>Promote land based whale watching / expand number of locations (including within National Parks) and expand Whale Trails</i>	Promoted land based viewing in the newly developed Stewardship Guide. Worked with Park Providers to develop a proposal to begin planning for additional land based viewing locations and interpretive information.	Boat Noise	17		6	28	
Existing Programs Underway			191				
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>	County updated its Clean Water Utility to locally fund more stormwater and surface water improvement projects. A regular street sweeping and storm water quality maintenance program is underway.	Contamination	49		8	23, 31	

County should work with Washington State Ferries to fully treat storm water runoff from ferry terminal areas.	Proposed Near Term Action Proposal submitted for Funding in Partnership with the Ferries and Friday Harbor to treat the ferry landings at Orcas, Lopez and San Juan. Project proposal was not scored highly however. Ferries may need to pursue directly.	Contamination	12		8	33	
<i>Banning use of toxic fertilizers and pesticides/herbicides.</i>	Working with Weed Board on integrated weed management strategy. Already have a hierarchy strategy of mechanical removal and judicious use of lowest toxicity herbicide in place here in the County as a standard practice.	Contamination	48		6	29	
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>	County, the Solid Waste Advisory Committee, and Friends of San Juans working on various elements to reduce plastic disposables, including the Last Straw Campaign. The MRC is launching an overarching "Plastic Free, Salish Sea" Awareness campaign for 2019 and garbology workshops.	Contamination	46		6	29, 33	

<i>Increase opportunities for non-motorized vehicles (bikes / walking)</i>	County is actively pursuing grant funding to create separated bike trails, especially along west side (Bailer Hill Rd) to support alternative transportation activities. Land Bank, San Juan Preservation Trust and County also exploring connectivity trails per the Parks, Trails and Natural Area Plan and Visitors survey results.	Contamination	16		6, 7	Not addressed by TF	
<i>Oil spill prevention (Oil spill response was separated out into a separate row as it is different to oil spill prevention and should be considered so).</i>	The MRC secured a \$100,000 grant to contract for an oil spill consequences assessment report and a report estimating the annual costs for stationing an Emergency Response Towing Vessel (ERTV) in San Juan County. The costs identified in the oil spill consequences assessment will provide justification for stationing an ERTV in the San Juans., to	Contamination	12		4	30, 33	The reports are due to be finalized in January 2019.
<i>Oil spill response. IOSA</i>	IOSA (Islands Oil Spill Association) is no longer a Primary Response Contractor due to a lack of financial resources. IOSA is no longer providing the 2- and 3-hour planning standards (per WAC 173-182-820). In addition,	Contamination					IOSA's Board of Directors is working with Ecology, industry representatives, county staff, and local supporters and volunteers to

	IOSA is no longer providing volunteer coordination (including volunteer training and drill participation), and is no longer providing regional wildlife response resources or response resources outside of San Juan County.						identify options for IOSA's continued existence. Towline Marine Assist and VOOs (Vessels of Opportunity) and Ecology's equipment are fulfilling the 2- and 3-hour planning standards at this time
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.	Need to follow up with FH on the status of their facilities; and to confirm if they are upgrading, if the facility will be tertiary to address nutrient loading and microplastics contamination.	Contamination	8		8	32, 33	
Policy letters			153				
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	Currently have a ban in San Juan County. State agencies moving on the issue.	Salmon	48		6	Not addressed by TF	

County should encourage fisheries managers to reduce Chinook harvest in the County (and elsewhere) in order to rebound SRKW food supply starting immediately.	MRC will discuss recommending the County put forth a request to allocate Chinook to SRKW through the North of Falcon process in 2019. A letter of support for temporary halt to harvest around the San Juans to give SRKW a sanctuary feeding zone in 2019 could also be proposed and sent to WDFW; action should involve discussion with tribes.	Salmon	39		2	4, 5, 10, 11, 15	
<i>(County?/ Local NOG's?, not defined) should advocate for allotment for prey for Orca</i>	Ties to letter above and North of Falcon process. NOAA has the authority to advocate for SRKW in the process.	Salmon	39		6	11	
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>	In the wheelhouse of co-managers, WDFW, and Tribes. San Juan County encouraged a voluntary salmon and Southern Resident sanctuary off West side of San Juan.	Salmon	13		1, 2 6, 7	4, 15	
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>County request that Coast Guard enact as a S.O.C. on AIS</i>	Needs to be addressed at the State level. Status of discussion not known; was forwarded to the Orca Task Force for consideration.	Boat Noise	14		6	27, AIS not well addressed by TF	

Funding Mechanism			84				
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.	An in house proposal is complete and will be pursued in 2019 with appropriate parties.	Salmon	13		1	1, 2, 3, 4, 5	
<i>County should increase funding for enforcement (focus on enforcement)</i>	County law enforcement expressed concerns operating around whales, and would prefer to stay in current role. Deferred to WDFW. Orca task force is proposing increased funding for on water enforcement through WDFW.	Boat Noise	13		1	20	
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>	Determined it is jurisdictionally impossible to collect this fee from patrons not launching from San Juan Islands. Need to avoid assigning a fee only to local operators, creating a competitive disadvantage over other operators.	Boat Noise	39		1, 2	19, 20	
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.	Chose to pursue LTAC funding for marine visitor survey information, that will enable the County to determine the use levels of marine resources and justify additional project funding.	Contamination	19		6	19, 20	

Permit System - in MSA or Watercraft Regs			63				
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>	PWWA has revised operating guidelines for their operators and initiated additional training. A permit system is outside County authority - and recommendation was forwarded to the Orca Task Force for consideration. County could write a letter requesting a permit system with boat noise thresholds and/ or number limits be put in place.	Boat Noise	34		1	18, 27	
<i>Limit water-based whale watching to transients</i>	PWWA has spread their fleet to reduce time with SRKW. Out of County jurisdiction.	Boat Noise	20		1	17, 19, 26, 28	
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 PA indicates we do not have authority to enact an entrance permit - however, we could request the State (probably State Parks) to initiate an annual permit that could be used to support MSA conservation. This action is under consideration at the Orca Task Force.	Boat Noise	9		1	18, 27	
SMP Actions			144				

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>	Ties to other SMP recommendations. Federal policy now requires full mitigation of existing or additional impact of shoreline activities.	Salmon	58		7, 9	1, 2, 3, 4, 5	
<i>No docks in core whale areas</i>	Ties to SMP item in other threat categories	Boat Noise	13		7, 9	3	
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>	County not reopening SMP just approved in October.	Salmon	33		7, 9	1, 2, 3, 4, 5	
<i>No docks, armoring in or near eelgrass</i>	County installing voluntary "no anchoring in eelgrass" signage on existing mooring buoys at Odlin Park next summer	Salmon	23		7, 9	1, 2, 3, 4, 5	
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>	Data gap, Need to locate funding for a County-wide survey of eelgrass and kelp.	Salmon	15		7, 9	1, 2, 3, 4, 5, 15, 16	
<i>No mooring buoys less than 30 feet depth (also no anchoring)</i>	Need to confirm if this is currently in code already.	Salmon	2		7, 9	3, 4, 5, 15, 16	
Other							

<i>Chinook buy-back program funding for tribal fish</i>	Not in County authority. Suggest that the MRC open up discussions with Puget Sound Tribes around their table, about what they think we need to do to help save the salmon and SRKW.	Salmon	25				Not addressed by TF
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