

Section	Comment	ECOLOGY RESPONSE
Overall	I was hoping for a format of these documents that would be more user friendly and accessible than PDFs. Perhaps a live online and mobile friendly tool is still in the works?	The plan was updated using the new digital GRP format (including linked maps) hosted on oilspills101.wa.gov, which aids in usability. This updated GRP format was designed following input from a user survey conducted in 2019. Ecology regularly reassesses the format and usability of GRPs, with the aim to continue to improve usability.
Overall	I would love to see something in the GRPs that highlights the procedure for providing updates to DOE and an estimate for timeline to have critical updates added (I'm thinking of new anchor points, etc.).	Comments on GRPs can be made by emailing grps@ecy.wa.gov . Detailed guidance on how to provide updates to Ecology is outlined on oilspills101.wa.gov and in every GRP. Additionally, as GRP strategies are tested during exercises and spills, or through input from Tribes, industry, or the public, the strategies are assessed and updated through Ecology's interim GRP update process.
Overall	Not much to do about this, but I do have a concern that this document may give some the impression that activating all of these GRPs in a major spill is achievable. No idea if there's a good way to set expectations, but maybe in Options and Considerations? Just a thought.	Due to the evolving nature of oil spills and environmental conditions, it is unlikely that all GRP strategies will need to be deployed simultaneously. During a spill response, the GRP priority tables will help direct initial response actions by prescribing which strategies should be deployed in what order. Later, the ICS 232 Resources At Risk document will direct responders to deploy additional response strategies as the spill response evolves. Additionally, Ecology has outreach resources that can be used to educate non-spill responders on how GRPs are developed and used during spill incidents, which would likely be utilized during a spill event.
Overall	Briefly: I have read through the comments submitted by Friends of the San Juans concerning the GRP and concur with their recommendations. Their 9 page document details much that is missing from the GRP as written and requires strong consideration to accomplish the stated goals of the Plan and to adequately protect local waters, flora and fauna, shorelines, and economy.	Ecology has closely reviewed all public comments received for this GRP comment period and made many changes to improve upon the draft version of the plan.
Overall	I am a member of a Technical Advisory Group working on salmon recovery with other scientists in the San Juans. Friends of the San Juans has submitted extensive comments on the GRP, which I have read. These comments should be heeded. Friends and other scientists in the islands have done considerable research identifying priority areas for protection, and comments from Friends incorporate the latest findings. The San Juans nearshore is vital for chinook recovery. Recent research has shown that juveniles that spend time feeding here grow more rapidly and therefore can enter the open ocean at a larger size -- clearly an advantage. I strongly support the comments provided by Friends of the San Juans.	Ecology has closely reviewed all public comments received for this GRP comment period and made many changes to improve upon the draft version of the plan.

Overall	<p>There remain gaps for the protection of critical marine natural resources in the County. While we appreciate that only select GRPs are likely to be deployed in the event of a large spill these GRPs are an important tool for protecting habitat, species and economic resources for localized smaller spills that may occur from non-ocean-going commercial vessels, e.g. recreational vessels or commercial fishing vessels. Should such a spill occur in area with critical economic, cultural, or natural resources (such as eelgrass habitat or areas known for their importance to out-migrating juvenile Chinook salmon), it is important to ensure that there have been adequate response strategies identified to provide the needed protection. This need has become all the more pressing as the number of boaters present in San Juan County have dramatically increased, in part due to COVID and the border closure, however, we expect this trend continue. This increase in boater usage also increases the risk of derelict vessels and vessels at risk. In 2020 San Juan County responded to 5-7 times the number of vessels at risk than the previous two years. We expect this trend to continue with the current economic climate, and thus the risk of localized spills to increase.</p>	<p>Ecology has closely reviewed all public comments received for this GRP comment period and made many changes to improve upon the draft version of the plan, including over 30 new response strategies to the plan based on recommendations by local experts.</p>
Overall	<p>The response strategies at this time only involve the use of containment boom for shore-based locations. In 2018, the Legislature required that GRPs address the spill risks associated with non-floating oils (sec 304 E2SSB 6269), such risks do not appear to have been incorporated into the GRPs other than to be summarized broadly in the Response Operations and Considerations for Non-floating Oils document (please see further comments related to this document in the attached notes). In addition, critical benthic habitat has been discovered in the San Juans that host the largest densities of Pacific sand lance, most notably in San Juan Channel, there is also evidence for similar habitat and Pacific sand lance elsewhere in the islands. Does Ecology have any plans to incorporate response strategies specific to these habitats? And specifically in relation to non-floating oil types in this GRP update?</p>	<p>The Non-Floating Oil Response Options and Considerations section guides response personnel to likely locations where sinking or submerged oil could accumulate. Additionally, contingency plan holders transporting, handling, or storing oils with non-floating properties must own or contract resources, including equipment and personnel, to respond to oils that submerge or sink. As the spill response community's understanding of non-floating oils evolves, Ecology's expectations for non-floating response capabilities will expand as well. In the future, you can expect to see advancements through our Best Available Protection program and from lessons learned during spills, drills, and research.</p>

Overall	From an implementation perspective we would like to see the information provided in these six documents made available in a more user-friendly web-based or app-based format. The current pdf format is cumbersome for those in the field working to deploy and maintain GRPs in a timely manner, as well as understand the resources that their efforts are attempting to protect. We also recommend that all the information for a site, including the natural and economic resources and site characteristics be included in the one page with the specific response strategy.	The plan is divided into sections on oilspills101.wa.gov so as to reduce the cumbersome nature of previous plan formats. We've designed each section of the document for different parts of a response - the longer form, written content targets initial incident command environmental unit staff and the 2-pagers target on-the-ground responders. The 2-pagers contain abbreviated information from the entire plan to ensure efficient deployments of each strategy. Additionally, this GRP was updated using a new digital GRP format that was designed following input from a user survey conducted in 2019. Ecology regularly reassesses the format and usability of GRPs, with the aim to continue to improve usability.
Overall	We also note that this update effort has not been able to address a review and update of response strategy critical infrastructure, e.g. anchor points. Does Ecology have a plan in place to allow for local partners such as IOSA to be able provide this information for incorporation into the response strategies in real time? Any delay to this could be detrimental to crew's ability to deploy response strategies.	Any party is able to submit lessons learned or suggested GRP updates to Ecology at any time. Our staff can create one or more "interim updates" based upon those recommendations. Comments on GRPs can be made by emailing grps@ecy.wa.gov . Detailed guidance on how to provide updates to Ecology is outlined on oilspills101.wa.gov and in every GRP.
Response Contact Sheet	Please mark San Juan County Sheriff's Office as a *24hr number.	The San Juan County Sheriff's Office has been included as a 24-hour number.
Response Contact Sheet	Please add San Juan County Emergency Management at 360-370-7612. You can also mark this as 24hr.	The San Juan County Emergency Management has been included in the contact sheet and marked as a 24-hour number.
Response Contact Sheet	I would think you would want to include Tribal emergency contacts for this sheet. Cultural Resource contacts are included in the Resources at Risk section, but given the need to notify tribal partners, I think they should be included in emergency contacts.	It is our practice to only include contact information for tribes located partly or fully within a GRP planning area on the contact sheet. Contact information for tribes who possess usual and accustomed interests within a planning area appears in the Resources At Risk section. In the event of a spill, Ecology response personnel are trained to promptly notify all tribes within the spill area through additional means, and do not rely upon GRPs to perform that duty.
Response Contact Sheet	The only local number listed on the Spill Response Contact Sheet is the SJC Sheriff Dispatch. The contact information for the PRC that provides the planning standards that are required to be resident should be included. The contacts for all Tribes with Treaty Rights (including Treaty Tribes without U and A fishing areas) should be included. The SPR-GRP Cultural Resources Contacts included in the Resources at Risk document should be included in the Spill Response Contact Sheet.	Contact information for two major PRCs are on the contact sheet. It is our practice to only include contact information for tribes located partly or fully within a GRP planning area on the contact sheet. Contact information for tribes who possess usual and accustomed interests within a planning area appears in the Resources At Risk section. In the event of a spill, Ecology response personnel are trained to promptly notify all tribes within the spill area through additional means, and do not rely upon GRPs to perform that duty. Providing contacts for a

		separate GRP within the SJI GRP would be cumbersome and confusing. Responders and industry personnel are trained on GRP planning areas and can make outside notifications, as appropriate.
Site Description	Under Climate and Winds: I suggest changing this sentence: "Winds in northern Puget Sound are generally out of the south, 10 to 20 mph April through May and October through March." to "From October through May, the winds in northern Puget Sound are generally out of the south or southwest. Beginning in late October and lasting through March, strong wind events are frequent, with regular gale and storm warnings. Peak storm season tends to be November-December."	Ecology updated the sentence as suggested.
Site Description	Provide specific priority species and habitat information: While the plan does emphasize the importance of the San Juan Islands to wildlife, we recommend that additional detail be included in both the site description, resources at risk report section as well as in the resources at risk column of the response strategies matrices to ensure clear understanding of the nature of the resources requiring protection. For example, the site description could explicitly reference the critical habitat for listed species including rockfish, Chinook salmon, the Southern Resident orca, as well as the newly listed pinto abalone and summer feeding habitat for the marbled murrelet seabirds.	Ecology updated the Resources At Risk section based upon received comments and consultation from natural resources agencies.
Site Description	Physical Features section: Add information about the tug and oil barge and tanker transits between the Trans Mountain Pipeline terminal in Burnaby, BC and the refinery in Tacoma, and also the transport of refined oil products from WA State refineries to BC.	GRPs focus on a particular planning area. The vessel traffic in and around the islands is laid out in general. There are hyperlinks to more information in the event that response personnel need to know more. Ecology writes in-depth risk assessments that are available online.
Site Description	Risk Assessment section: Accident and oil spill risk from the vessel traffic and oil transfer operations at the BP, Phillips 66, Shell and Marathon refineries and the Petrogas LPG export facility are not addressed.	Ecology added basic information about the oil spill risk of vessel traffic and nearby refineries.
Site Description	The following statement omits important information and mischaracterizes the vessel traffic risks and impacts to the San Juan Islands: For example, cargo and passenger vessels had 617 entering transits via the Strait of Georgia and Haro Strait in 2019 (VEAT 2019). What the statement above omits is that the 617 cargo and passenger (C&P) entering transits were bound for WA State ports. There were also 2,784 C&P entering transits bound for ports in BC. All 5,947 entering transits (C&P plus tank vessels) circumnavigate some portion of the San Juan Islands. The section on recreational boating should	Ecology updated the VEAT information based on the latest report in the series. Also, there is now a statement regarding a likely increase in traffic once the Trans Mountain expansion project is complete.

	address the risk of accidents and oil spills from recreational boating and commercial vessels.	
Site Description	Would like to see the recognition of the importance of these marine resources to the Coast Salish Tribes with U & A (and those without U & A) in the County. Anything impacting not only treaty rights, but also cultural rights essentially becomes a human rights issue and Ecology should acknowledge this. We assume that Ecology have done their due diligence in consulting with all the Tribes that have U&A in the San Juan Islands to ensure that the GRP update also allows for adequate protection of key cultural sites.	Tribes with and without Usual & Accustomed interests in the planning area were alerted to the update when the GRP was opened in 2019. I received no tribal recommendations for improvements. During this update, Ecology evaluated all response strategies in the plan for cultural resources and updated contact information in Resources at Risk section for all federally recognized tribes with U&A interests in the area. Additionally, during a spill event, certain Ecology staff alert tribal and trustee communities of a spill, and keep them notified during the response. This work is conducted in addition to the notifications suggested in the GRPs.
Site Description	The San Juans have been heavily affected by human activities, particularly in the last 200 years. This includes fishing, terrestrial development, including shoreline development which has a significant impact on our marine habitats and wildlife. The Puget Sound Partnership's Vital Signs, and 2019 State of the Sound report suggest that only four targets are meeting expectations. (https://www.psp.wa.gov/sos.php). Therefore, it would be prudent to update this section to reflect this.	A link to Puget Sound Partnership's Vital Signs website was added to the GRP
Site Description	The descriptions of the communities on page 6, does not reflect the island's main population bases well and should be refined for accuracy.	Ecology refined the description of the communities for accuracy.
Site Description	The descriptions of physical features on page 2 are not all correct. There are numerous pocket beaches scattered throughout the County which are vital habitat to spawning foraging fish as well as providing habitat for Chinook salmon, please refer to the comments from Friends of the San Juans for more detailed information.	Ecology made changes to the Resources At Risk section.
Site Description	Regarding recreational boating we request that recreational vessels and the risk of vessels becoming derelict be included. These are high risk sources for acute local oil spill events.	Ecology added a sentence about derelict vessels, along with a link to the Washington Department of Natural Resources webpage concerning this risk.
Site Description	Please also address the risk of spills from refineries and related operations, while not in San Juan County these sit on the border with the county and the border with the boundaries of this GRP. This is particularly important given that the EPA have eased requirements for inspections for large oil and gas storage tanks, for which there may be associated risk. In relation to the risk associated with shipping	Ecology added a description of large spill risks based in Whatcom and Skagit Counties to the risk assessment portion of this section.

	<p>please ensure that you properly characterize vessel traffic risks as laid out in the comments submitted by Friends of the San Juans.</p>	
Response Options and Considerations	<p>This document needs to include information on how the potential response options address the considerations: For example, dispersant use is a “Potential Response Options” at each of these locations as shown on the map below: Turn Point, Strait of Georgia, Rosario Strait, McArthur Bank, and Friday Harbor. And all of these locations also include the following considerations:</p> <ul style="list-style-type: none"> • Shoreside Access can be Limited by Private Property • State or National Wildlife Refuge / Recreation Area • Threatened / Endangered Terrestrial Species • Commercial Vessel Movement / Port Area • Recreational Boat Traffic • Tribal Lands or U and A Interests • Historic / Cultural District(s) in Area <p>With Friday Harbor also listed with a Public or Commercial Marina(s) in Area.</p> <p>Considerations that are not site specific should also be included and addressed. For example, the use of dispersants should consider the distance from shore, which vary according to the map locations.</p>	<p>GRPs do not influence the decision to use or not use dispersants during a response. The response options and considerations section outlines potential actions that could occur in a planning area. The locations referenced match up with the Potential Oil Spill Origin Points from the Response Strategies and Priorities section. They represent the five possible directions an oil slick may originate from (north, east, south, west, and county interior). GRPs are not intended to be an exhaustive document, but rather a tool to help inform and guide responders.</p>
Response Options and Considerations	<p>Threatened and endangered marine species also present in the area including Southern Resident killer whales, marine birds such as the marble murrelet, marine fish species and marine invertebrates e.g. Pinto Abalone.</p>	<p>The Resources at Risk section contains information on threatened and endangered marine species. The Response Options and Considerations section does not contain this information.</p>
Non-Floating Oils Response Options and Considerations	<p>The list of oil types transferred by vessel, pipeline, and rail as having potential non-floating properties should be revised to specifically include diluted bitumen (as is included in WAC 173-182-324).</p>	<p>Ecology lists diluted bitumen on page 3 in the Non-Floating Oils Response Options and Considerations document. In the early hours of an incident, responders within unified command, including federal, state, local, and tribal partners, will determine the potential for spilled oil to sink or submerge and then take action to locate and recover it.</p>

Non-Floating Oils Response Options and Considerations	<p>Revisions are needed in the section on Subsurface Survey and Response Considerations that includes Figure 2: San Juan Islands higher risk areas for non-floating oil impacts. What was the methodology for identifying the higher risk areas for non-floating oil impacts and what was the methodology for selecting only the following four sites: Boundary Pass, East Sound, Parker Reef, and San Juan Channel? Please explain why these locations are at a higher risk from non-floating oil impacts. Has bathymetry data been used to identify the “Environmental conditions that impact oil weathering, sinking, or accumulating on the seafloor?”</p>	<p>The Ecology Non-Floating Oil Response Tool (https://waecy.maps.arcgis.com/apps/webappviewer/index.html?id=13ff19cd32224ec183865b7f4ac98c21) describes the methodology used to identify NFO risk. The tool was used to identify locations where NFOs may accumulate if spilled in the county. Areas with lower water density (impacted by temperature and salinity), slower currents, certain substrate or shoreline types, and other criteria may increase the likelihood for oil to sink. The map in this section is not intended to suggest that certain areas will not be harmed by sinking or submerged oils.</p>
Non-Floating Oils Response Options and Considerations	<p>The table that identifies “Considerations that support the identification of sunken oil survey or recovery methods” lists “Open Public Shellfish Harvesting” and “Open Commercial Shellfish Harvesting” as absent for all four sites. Please confirm that this is accurate. This table is also incomplete. For example, Pacific sand lance (<i>Ammodytes hexapterus</i>) habitat in San Juan Channel is not included (and may also be located at other sites).</p>	<p>Ecology has confirmed the information in the table is accurate.</p>
Non-Floating Oils Response Options and Considerations	<p>Impacts from non-floating oils is not exclusive to seafloor resources. Water column species and subsurface resources should also be addressed as required in E2SSB 6269, RCW 90.56.210 and WAC 173-186-603.</p>	<p>Water column and subsurface resources are addressed in the Resources at Risk section of the GRP. Response personnel will take action to protect water column species and subsurface resources if the spilled oil possesses characteristics that may lead to the oil sinking or submerging.</p>
Non-Floating Oils Response Options and Considerations	<p>The section on Subsurface Survey and Response Considerations only references other documents: See Table 3-2 in the API Technical Report on Sunken Oil Detection and Recovery to learn about how survey methods are chosen. Once these surveys have confirmed the location, amount, and characteristics of sunken oil, a customized plan to remove the sunken oil can select the most effective and non-damaging methods for the environment. The API report and the USCAT manual both detail a variety of methods to survey and recover sunken oil in a range of environments. There is no link provided to the USCAT manual; there is a link to the API Technical Report on Sunken Oil Detection and Recovery.</p>	<p>The uSCAT manual link is listed earlier in the document. Response personnel are familiar with the resources listed in this section that will aid them in locating and recovering sinking and submerged oil.</p>

Non-Floating Oils Response Options and Considerations	There are no non-floating oil spill specific response options included in the Response Options & Considerations for Non-Floating Oil document, the Response Strategies and Priorities document or anywhere in the updated SJI GRP.	We design response strategies to protect resources at risk from floating oil. If a spilled oil possesses characteristics that cause it to sink, the response will locate and recover the oil. As the spill response community's understanding of non-floating oils evolves, Ecology's expectations for non-floating response capabilities will expand as well. In the future, you can expect to see advancements through our Best Available Protection program and from lessons learned during spills, drills, and research.
Non-Floating Oils Response Options and Considerations	In 2018, the Legislature directed Ecology to include information in GRPs about species impacted by non-floating oils and address tactics for non-floating oils. The SJI GRP appears to not comply with E2SSB 6269 or RCW 90.56.210 or WAC 173-186-603.	The Non-Floating Oil Response Options and Considerations section was added to GRPs as a result of the legislation. The document guides response personnel to likely locations where sinking or submerged oil would accumulate, lists resources to detect, track, and recover submerged oils through the API report and uSCAT manual, and lists potential considerations when recovering submerged oils in the table on page 7. We list water column and benthic species in the Resources at Risk section of the GRP.
Non-Floating Oils Response Options and Considerations	We are concerned that the analysis presented here does not appear to have incorporated the results of Aschoff and Green 2019, Diluted Bitumen Oil Spill Risk Mapping. One clear discrepancy is that they found areas of Haro Strait would be key collection sites for tar balls, therefore increasing the risk of accumulation in this area. We understand that you should have been provided copies of this report and its associated mapping results, but if not please let us know and we will facilitate this for you.	Ecology has added the report to the GRP.
Non-Floating Oils Response Options and Considerations	Please note that there is a commercial shellfish operation in Eastsound off Crescent Beach. Also, diving does occur in San Juan Channel - there are a number of key sites surveyed regularly by REEF and the Sea Doc Society, for WDFW monitoring and by researchers at the University of Washington's Friday Harbor Labs.	Ecology has added a response strategy and a notification strategy to the plan to protect the shellfish operation and Ship Bay. Also, the San Juan Channel column is now marked as "Present" in the Recreational Diving Area row.
Response Strategies and Priorities	The Lopez Island ferry terminal (North end of Lopez Island) is listed as a staging area and boat ramp, but it is neither. I think that the Odlin Park staging area and boat ramp is what is intended. That is farther south and on the west side of Lopez.	Odlin Park is both a staging area and boat launch in this plan (SA/BL-LOP-01). The ferry terminal is not listed as a staging area and boat launch.

Response Strategies and Priorities	Mabe this should be captured in Options and Strategies, but I'm not seeing any mention of ferries/ferry logistics in terms of moving personnel and resources to the islands. I think there should be mention of Anacortes ferry terminal, ferry routes, how to access WSF website, etc. May also be worth providing info for the WSF Emergency Operations Center so that agencies will know how to quickly reach out to WSF operations leadership.	Ecology added WSF contact information to the response contact sheet.
Response Strategies and Priorities	Related to ferry issue is that all of the staging areas (as far as I can tell) tied to particular GRPs are mainland locations. I know this isn't clear cut, but I wonder if it is worth mentioning the staging areas in Appendix C for GRPs? There are situations where deploying smaller workboats and boom may be faster if initial transport is via ferry/ground, rather than deploying from mainland.	Ecology added five staging areas and boat launches on three islands to the plan. Ecology selected these locations based on their proximity to IOSA equipment caches using the Worldwide Resource Response List.
Response Strategies and Priorities	The section Strategy Priorities based on Potential Oil Spill Origin Points states that "the placement of each POSOP [Potential Oil Spill Origin Points] is often based on spill risks in the area." What methodology was used to determine the POSOPs? Why isn't there a POSOP in Rosario Strait? The Spill Response Options and Considerations (inaccurately titled "Response Strategies and Priorities?") includes spill location in Rosario Strait. The VTRA 2015 documents the accident and oil spill risk in the Rosario and Guemes waterway zones.	The methodology is explained on page 10 of the Response Strategies and Priorities section. POSOPs were sited in locations where a large oil spill could conceivably originate from. Ecology added four North Puget Sound GRP priority tables (representing as many POSOPs) situated in Rosario Strait to this plan.
Response Strategies and Priorities	Include San Juan Islands National Monument: The San Juan Islands National Wildlife Refuge and the San Juan Islands National Historical Park are identified where relevant in the GRPs. Missing from the GRPs is the San Juan Islands National Monument that was designated in 2013. It includes approximately 1,000 acres spread across the archipelago. Some of the Monument properties include GRPs (though not identified as such e.g., Patos Island (PAT-01, PAT-02, PAT-03, and PAT-04) Fauntleroy Rock (DEC-01), Watmough Bay (LOP-10), and Fishing Bay (ORC-05)). Were all the San Juans Islands National Monument properties evaluated for GRPs?	Ecology added new responses strategies to the plan in part to protect properties belonging to the San Juan Islands National Monument. Additionally, Ecology linked maps for both the National Wildlife Refuge and National Monument on the webpage and consulted with USFWS to determine the suitability of GRP sites within the refuge.
Response Strategies and Priorities	Update resources at risk data: Many of the new GRPs appear to reflect the information provided by Friends of the San Juans and San Juan County regarding priority areas for forage fish and salmon recovery. However, the data in the resources at risk column of the response strategy matrix does not appear to have been updated to reflect available information. A list of strategies and suggested additions or revisions to the proposed response strategies is provided	Ecology added "salmonids" and "forage fish" to many of these 2-pagers after consultation with Washington State Department of Fish and Wildlife's Oil Spill Team. The GRPs summarize Resource at Risk information. During a response, additional resources would be identified by the environmental unit.

below. Note: these recommended changes relate to forage fish eelgrass, kelp and juvenile salmon only. Additional thorough review of the available information on resources at risk for each site, including other species such as rockfish, abalone, Southern Resident orca, as well as protected or public lands, recreationally and commercially important shellfish growing areas etc. should be undertaken.

Include information on timing: In addition, information on the timing key species may be present, if applicable, should be included. For example, beach seining data shows that out-migrating juvenile Chinook salmon are present in the San Juans from March through September, Pacific herring spawn late January through April, and Pacific sand lance spawn November through February while surf smelt spawn year-round. This information could be invaluable in the event of a spill when responders are working to prioritize between the extensive strategies.

Recommended additions and/or revisions to resources at risk column: The following information is provided through a salmon recovery lens and additional detail on other species or values is likely warranted for many sites. Note, while juvenile Chinook have been documented in all regions of the county, they are recommended for inclusion in the response strategy only if the area was ranked as highest or high for presence probability for juvenile Chinook.

- Bla-01 juv salmon
- Bla-02-forage fish spawn- surf smelt, juv salmon
- Dec-01- forage fish spawn- surf smelt, juv salmon
- Hen and James- add juv salmon to all
- Lop-01 forage fish spawning: herring, sand lance and surf smelt
- Lop-02 forage fish spawning pacific sand lance
- Lopez-03 forage fish spawning pacific sand lance
- Lopez 04-05-06- herring and surf smelt spawning, not sand lance
- Lopez- 08 and 09- add forage fish spawn herring, sand lance and smelt
- Lop-10 forage fish spawning beach- surf smelt and pacific sand lance, add juv salmon
- Lop-11,12,13,14: add juv salmon; Lop-14 eelgrass, juv salmon, forage fish spawning- surf smelt
- Lop-15 juv salmon, forage fish spawning surf smelt and pacific sand lance
- Lop-16 juv salmon

- Lop- 17 forage fish spawning pacific sand lance; Matia, Sucia, Patos-all sites add juv salmon to resources
- Orc-01-04 add juv salmon; Orc-04 not forage fish spawn area.
- Spawning salmon (coho)
 - Orc-11 juv salmon, spawning forage fish pacific sand lance, coastal cutthroat, stream
 - Orc 12- eelgrass, juv salmon, forage fish spawn sand lance
 - Orc 13 eelgrass, juv salmon, add sand lance to forage fish spawn
 - Sha-01 herring and surf smelt
 - Sha-02 herring and surf smelt
 - Sha-05 note: has a new place name: consider updating squaw bay with reef net cove
 - Sji-01 juv salmon
 - Sji-02 forage fish spawn sand lance (spawning at dock property not inside cove)
 - Sji-03 forage fish spawning forage fish and sand lance, juv salmon
 - Sji-04 no forage fish spawn, juv salmon
 - Sji-05 juv salmon
 - Sji-06 juv salmon
 - Sji-07 juv salmon, forage fish spawning surf smelt and sand lance
 - Sji-08 and 09 juv salmon
 - Sji-10 juv salmon, forage fish spawn historic herring and current surf smelt
 - Sji-11 juv salmon, forage fish spawn historic herring and current surf smelt, coastal cutthroat trout, freshwater stream/wetland
 - Sji-12 juv salmon, forage fish spawn historic herring and current surf smelt
 - Sji-13 juv salmon
 - Stu-all add juv salmon
 - Stu-03, 04 juv salmon, spawning forage fish surf smelt
 - Suc- all add juv salmon
 - Suc-04 juv salmon, spawning forage fish smelt
 - Suc-05 and 06- juv salmon, spawning forage fish smelt, salt marsh
 - Wal- all sites ad juv salmon.

Response Strategies and Priorities	<p>Consider Additional Response Strategies: Many locations with documented forage fish spawning, eelgrass and kelps, priority rearing areas for out-migrating juvenile Chinook and other resources at risk are not addressed with a GRP. Without a methods document or any discussion of process, it is unclear why certain priority areas were left out while some were included. The GRPs do seem to rely solely on the use of traditional booming strategies. We encourage Ecology to take another look at priority areas that require protection and the available response technologies. Using the same forage fish and juvenile salmon lens as the remainder of these comments a list of locations for additional review and their resources at risk is provided below. Please note that other key species and habitats that deserve equal attention such as rockfish, abalone, wetlands, etc. also require additional review and consideration of strategies.</p> <p>Sites where GRPs should be considered (through the forage fish and salmon lens):</p> <ol style="list-style-type: none"> 1. Waldron beaches- forage fish spawn (sand lance and smelt) in Cowlitz Bay west and central, north bay/Fishery pt . (sand lance) and NE Waldron just S of Point Hammond (sand lance) and the whole island is very important for rearing juvenile salmon; 2. South Shaw pocket beaches- these face San Juan channel and are major collector beaches and include multiple forage fish- surf smelt spawning sites and public parks and UW Preserves; 3. Flat Point to Odlin, Lopez - forage fish spawning (surf smelt and sand lance) and eelgrass as well as public lands and parks and rearing juvenile salmon; 4. Crescent Beach/Ships Bay , Orcas- in addition spawning grounds for forage fish (herring and sand lance) the site is important for commercial and natural shellfish, sand dollars, wetlands as well as public lands and tidelands; 5. American Camp, SE San Juan Island- both north and south shores and pocket beaches include documented forage fish spawning beaches (surf smelt and sand lance at pocket beaches at the eastern tip as well as north shores), extensive eelgrass, rearing juvenile salmon entire reach, also includes wetlands on north shore and high value for recreation, public land values across the entire property; 6. East Orcas, East Blakely and East Decatur- especially non-bedrock shores/pocket beaches are of high value for out-migrating Puget Sound Chinook. 	<p>Ecology added response strategies to the north side of Waldron Island (Fishery Point Beach) and Ship Bay on Orcas Island. Ecology retained the two existing response strategies along the north shore of American Camp. No new response strategies have been added to southern Shaw Island or Lopez Island between Flat Point and Odlin Park. Ecology received no specific recommendations for those two areas.</p>
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Response Strategies and Priorities	<p>Sect SJI1 – We are disappointed not to see any GRP strategies for the northern sides of Waldron Island, this area is extremely important to Fraser River Chinook.</p> <p>Sect SJI2 – There do not appear to be any protection plans for the south end of Griffin Bay. This area hosts some of the last remaining pristine eelgrass habitat in the San Juans as well as important cultural resources sites.</p> <p>Sect SJI3 – There is no protection of pocket beaches along the eastern reaches of Decatur, Blakely and Orcas Islands - these beaches provide extremely important habitat to juvenile Skagit River Chinook salmon.</p>	<p>Ecology added a response strategy to northern Waldron Island, three response strategies to southeastern Orcas Island, one response strategy to southeastern Decatur Island, two response strategies to Blakely Island, and retained two existing response strategies along southern Griffin Bay.</p>
Response Strategies and Priorities	<p>More generally, how have the updates addressed providing protection to nearshore habitat that have undergone recent restoration efforts? Significant investment has been made to restore these areas and thus protecting this investment would be valuable.</p>	<p>Ecology identified newly restored sites and considered the creation of new response strategies as part of the plan update process. Ecology added over 30 new response strategies to the plan largely as a result of recommendations from local experts.</p>
Resources At Risk	<p>Analysis of available response strategies: In the introduction to the resources at risk report one sentence notes that not all priority areas can be protected because response strategies will not be effective yet no exploration of alternatives to traditional booming or new technologies available since the last GRP update are provided. In addition the list of sites recommended for alternative shoreline protection should be expanded in a comprehensive way, and these sites should be added into the GRP table; during a spill the embedded narrative in various sections of the report will be lost.</p>	<p>An oil spill response will employ any techniques necessary to clean up the environment. A GRP does not impose any limits on response personnel. A GRP represents a fraction of what will make up the Incident Action Plan.</p>
Resources At Risk	<p>Rockfish: incorporate rockfish habitat hot spot data to regional descriptions, especially 1-5, 7, 8, 10, 11 and 17</p>	<p>Ecology added rockfish to the Specific Geographic Areas of Concern portion of this section, based on consultation with WDFW's Oil Spill Team.</p>
Resources At Risk	<p>False Bay is located on San Juan not Orcas island.</p>	<p>Ecology corrected this error.</p>
Resources At Risk	<p>Consider splitting rocky and sandy shorelines - the relevant resources, locations and impacts are notably different for sand and gravel versus rocky shorelines. Kelp and eelgrass also relates to this geomorphic shoreform break between soft and bedrock shores.</p>	<p>Based on consultation with Washington State Department of Fish and Wildlife's Oil Spill Team, Ecology did not split rocky and sandy shorelines in the Resources at Risk section.</p>
Resources At Risk	<p>Subtidal habitats: include sand waves located in San Juan Channel and near Sucia/Patos. These sand waves support high densities of juvenile sand lance.</p>	<p>Ecology added sand lance to the description of soft sediment in the Resources at Risk section based on consultation with Washington State Department of Fish and Wildlife's Oil Spill Team.</p>
Resources At Risk	<p>Fish: Emphasize regional role as rearing habitat for out-migrating juvenile Chinook. Twenty of the twenty-two stocks of listed Puget Sound Chinook as well as chum, pink, coho and salmonids from</p>	<p>Ecology did not add additional emphasis of the islands' importance as rearing habitat to salmonids to the Resources at Risk section based on consultation with Washington State Department of Fish and Wildlife's Oil Spill Team.</p>

	Canadian rivers all utilize the San Juans as critical rearing and feeding habitat on their way to the Ocean.	
Resources At Risk	Wildlife: note marbled murrelet seabirds are especially prevalent, and vulnerable in the spring/summer breeding / feeding season, versus nesting habitats.	Ecology did not emphasize marbled murrelet populations in the Resources At Risk section based on consultation with Washington State Department of Fish and Wildlife's Oil Spill Team.
Resources At Risk	<p>Specific geographic areas of concern: Add out-migrating juvenile salmon to 1-14, 17.</p> <p>Add spawning beaches for surf smelt to #3 Sucia and #5 Stuart.</p> <p>#6 Westcott Garrison: no longer has most extensive eelgrass, remaining fragments and an eelgrass restoration site are located along Bell Point.</p> <p># 9 Griffin bay: spawning forage fish beaches surf smelt and sand lance.</p> <p>#10 Add eelgrass. Extensive beds along south beach to salmon banks.</p> <p>#15 Consider renaming squaw bay to reef net cove. This place name has been updated in the past 5 years.</p> <p>#19: Add public parks and preserves (waterfront county park, SJC Land Bank Judd Cove and Crescent Beach, San Juan Preservation Trust preserve crescent, add wetlands, add commercial shellfish.</p>	Ecology added salmonids to most of the Specific Geographic Areas of Concern. Ecology removed the reference of eelgrass in Westcott Bay from the Resources at Risk section. Ecology added spawning habitat for forage fish to Griffin Bay. Ecology added eelgrass to South San Juan Island. Ecology renamed the response strategy SHA-05 to "Reef Net Cove (formerly Squaw Bay)". Ecology added public recreation areas and wetlands to the description of East Sound. Ecology created a notification strategy for Judd Cove Oysters in Ship Bay.
Resources At Risk	Please add Hood Canal-Strait of Juan de Fuca (HC-SJF) Chum salmon population to the fish list. This species is ESA listed as Threatened.	Ecology added Hood Canal Chum Salmon to the fish list in the Resources At Risk section.
Resources At Risk	Please check the section on General Resource Concerns on page 4 related to intertidal and shallow subtidal mud/sand flats. False Bay is located on San Juan Island and not Orcas Island. False Bay is also a Biological Preserve managed by the University of Washington's Friday Harbor Labs.	Ecology corrected the error concerning False Bay. Ecology also added a mention of the UW Biological Preserve to the response strategy SJI-09 2-pager in the Response Strategies & Priorities section.
Resources At Risk	Kelp and eelgrass habitat are also key nursery habitats for juvenile chinook salmon and other species.	Ecology added this detail to the Resources at Risk section.
Resources At Risk	Tide rips, especially around headlands and in smaller channels are biodiversity hotspots, attracting many different species due to the abundance of prey in these areas. A good example of this is Cattle Pass where there are many feeding birds, pinnipeds and porpoise. San Juan Channel feeding into Cattle Pass has also been identified as key subtidal Pacific sand lance habitat (sand waves) with the highest densities of sand lance in the San Juans.	Ecology added this detail to the Resources at Risk section.

Resources At Risk	Key nearshore habitat for Pacific salmonids, especially for out-migrating juvenile Chinook salmon have not been included in this update despite field surveys of these locations. Likewise, pocket beach habitat vital to spawning forage fish including surf smelt and sand lance have not been included in this update. Please refer to the comments provided by Friends of the San Juans for specific details on which locations should be considered for additional GRPs, these include beaches of Waldron Island and the eastern extents of Orcas, Blakely, and Decatur Islands to name a few.	Ecology added multiple references to Pacific salmonids, especially out-migrating juveniles, to the section. Ecology added information on forage fish in to this section. Ecology added additional GRPs, as detailed above.
Resources At Risk	Please add eelgrass to Salmon Bank, this area has extensive eelgrass beds.	Ecology added eelgrass to the South San Juan Island area of concern.
Resources At Risk	Please be sure to check the list of Tribes and include both those with U&A treaty rights and those without (such as the Samish). The list presented in the documents does not appear to be complete.	Ecology conducted outreach to tribes in and around the GRP planning area (with and without U&A) at the outset of this plan update, but received no specific recommendations. It is customary for the cultural resource contacts of tribes with U&A treaty rights to appear in this section as a way to remind responders to notify tribes and invite them to participate in a response. Additionally, Ecology responders notify tribes during responses using other contact lists that are regularly updated and maintained.
Resources At Risk	Please rename Squaw Bay to Reef Net Cove as this name has been updated.	Ecology renamed the response strategy SHA-05 to "Reef Net Cove (formerly Squaw Bay)".
Resources At Risk	Please add all public parks, preserves and sensitive shoreline habitat, as well as locations of commercial shellfish operations that have not been included already.	Parks and shellfish operations are listed in the Economic Resources At Risk section and may or may not have associated response strategies. Ecology created four notification strategies to warn commercial shellfish growers of nearby spills. Ecology added shoreline habitat identified as appropriate to the Resources at Risk section.
Economic Resources At Risk	Commercial shellfish operations. I am aware of three: https://www.westcottbayshellfish.com/ - http://www.buckbayshellfishfarm.com/ - http://jffarms.com/shellfish/	Ecology added these shellfish operations to the Economic Resources at Risk section. Ecology created four notification strategies to warn commercial shellfish growers of nearby spills.
Economic Resources At Risk	There are other land managers with public waterfront property that should probably be included. https://sjclandbank.org/ - https://sjpt.org/ - https://www.nature.org/en-us/about-us/where-we-work/united-states/washington/ (Yellow Island)	Ecology added these land managers to the Economic Resources at Risk section.
Economic Resources At Risk	Critical infrastructure, water dependent commercial areas, and water dependent recreation areas are not the only economically sensitive resources in the SJI GRP. Please update this section with the information in the San Juan County Oil Spill Risk Consequences	Ecology added a link to this report to https://oilspills101.wa.gov/northwest-area-contingency-plan/geographic-response-plans-grps/san-juan-islands-grp/

	Assessment: https://www.sjcmrc.org/media/18754/sanjuancooilspill-riskconsequencesassessment_eartheconomics_030119.pdf	
Economic Resources At Risk	<p>Please add the following marinas to your list of Economic Resources:</p> <ul style="list-style-type: none"> • Westsound Marina: 360 376 2314 • IMC, Lopez: 360 468 3377 • Spencers Landing: 360 468 2077 • Blakely Island Marina: 360 375 6121 	Ecology added these marinas to the Economic Resources at Risk section.
Economic Resources At Risk	<p>Please add the following shellfish companies:</p> <ul style="list-style-type: none"> • Buck bay Shellfish Company: 360 376 5280 • Westcott Bay Shellfish: 360 298 5294 <p>There is also a shellfish operation in Eastsound, located at Crescent Beach and this operation should also be included. We would request that you double check with the State regarding which shellfish companies are operating in the County, where they are located and what species.</p>	Ecology added these shellfish operations to the Economic Resources at Risk section. Ecology created four notification strategies to warn commercial shellfish growers of nearby spills.