

WASHINGTON COASTAL MARINE ADVISORY COUNCIL MEETING

AGENDA

Wednesday, December 11, 2019 9:30 am – 3:30 pm

Location: Port of Grays Harbor Commissioners Chambers, 111 S. Wooding St. Aberdeen, WA

WCMAC WEBEX MEETING

<https://watech.webex.com/watech/j.php?MTID=m12befd625c90452cbf69fc02c2b8ba4e>

Meeting number (access code): 281 376 762 Meeting password: mxuSkH6q

Call-in Instructions: 1-415-655-0001

Coffee and Treats: Breakfast refreshments will be served at 9:15. Please come early to enjoy them. **The meeting will start promptly at 9:30 a.m.**

Time	Agenda Item (Action items are marked with '!')	Objective (Information, Discussion, Action?)	Presenter(s)
9:30 (15 min)	Welcome & Introductions, Agenda Review <ul style="list-style-type: none"> Welcome and Introductions Review agenda ! Adopt summary of October meeting 	Information <i>Reference Materials:</i> <ul style="list-style-type: none"> Agenda Draft Meeting Summary 	Garrett Dalan, WCMAC Chair Susan Gulick, Facilitator
9:45 (45 min)	Coastal Updates <ul style="list-style-type: none"> MRC Updates, Agency Updates, Budget update, MRAC and General Coastal Updates 	Information	WCMAC Members Susan Gulick, Facilitator
10:30 (30 min)	Settlement Agreement: Ecology and the Willapa and Grays Harbor Oyster Growers Association	Information <i>Reference Materials:</i> <ul style="list-style-type: none"> Motion to Dismiss/Settlement 	Rich Doenges, Dept. of Ecology
11:00 (45 min)	Proposed Expanded Critical Habitat for Southern Resident Killer Whales on the WA Coast <ul style="list-style-type: none"> Overview of new NOAA proposed rule Questions/Discussion 	Information	Nancy Young, NOAA (via phone)
11:45 (30 min)	Economic Workshop <ul style="list-style-type: none"> Update on workshop planning <ul style="list-style-type: none"> Agenda Budget Logistics 	Information <i>Reference Materials:</i> <ul style="list-style-type: none"> Economic Resilience Workshop Overview 	Rod Fleck, WCMAC Member
12:15 (15 min)	Morning Public Comment	Information	Public/Observers Susan Gulick, Facilitator
12:30	LUNCH		
1:30 (60 min)	Proposed Grays Harbor Potash Terminal <ul style="list-style-type: none"> Overview of project status 	Information, Discussion	Valerie Bond, BHP Brian Carrico, WSP
2:30 (15 min)	Elect Vice Chair	Decision	Susan Gulick, Facilitator
2:45 (20 min)	WCMAC Workplan <ul style="list-style-type: none"> Agenda Topics for Next Meeting Agenda Topics for Future meetings 	Information, Discussion <i>Reference Materials:</i> <ul style="list-style-type: none"> WCMAC Workplan & Meeting Plan 	WCMAC Members Susan Gulick, Facilitator
3:05 (15 min)	Afternoon Public Comment	Information	Public/Observers Susan Gulick, Facilitator
3:20 (10 min)	Other Issues <ul style="list-style-type: none"> Reminder of Dates and Times for Future Meetings Other issues or announcements 	Information	WCMAC Members Susan Gulick, Facilitator
3:30	Adjourn		Garrett Dalan

Upcoming WCMAC Meetings

Wednesday, March 25, 2020

Wednesday, September 23, 2020

Wednesday, June 10, 2020

Wednesday, December 9, 2020

Meetings are held in Aberdeen unless otherwise noted

WASHINGTON COASTAL MARINE ADVISORY COUNCIL MEETING

Draft Summary

Wednesday, October 2, 2019 9:30 am – 3:30pm

Location: Port of Grays Harbor Commissioners Chambers, 111 S. Wooding St., Aberdeen, WA

All meeting materials and presentations can be found here: [WCMAC Website](#)

Highlights

- Presentations about Salmon on the WA Coast from WDFW and GSRO staff.
- Update on planning for coastal economic resiliency workshop.
- Discussion of 2020 workplan

Summary of Decisions

- ! The June Meeting Summary was adopted.

Follow-up Items

- Susan Gulick and Emily Wright will discuss hybrid version for meeting summaries and a potential public-facing document annually.
- Susan will scope out potential topics for next five WCMAC meetings and bring them to December meeting for review.

Upcoming Meetings

- Wednesday, December 11, 2019
- Wednesday, March 25, 2020
- Wednesday, June 10, 2020
- Wednesday, September 23, 2020
- Wednesday, December 9, 2020

Meetings will be held in Aberdeen unless otherwise noted

Council Members Present	
Corey Niles, WDFW	Larry Thevik, Commercial Fishing
Crystal Dingler, Citizen	Mara Zimmerman, WA Coastal Salmon Partnership
Dale Beasley, Commercial Fishing	Mike Cassinelli, Recreational Fishing
David Fluharty, Educational Institution	Mike Passmore, Wahkiakum MRC
Doug Kess, Pacific MRC	Randy Lewis, Ports
Garrett Dalan, Grays Harbor MRC	Rich Osborne, Science
Gus Gates, Recreation	Rod Fleck, North Pacific MRC
Jay Carmony, State Parks	Russell Callender, WA Sea Grant
Jeff Ward, Coastal Energy	Rich Doenges, Dept. of Ecology
Katrina Lassiter, DNR	RD Grunbaum, Conservation

Council Members Absent	
Alla Weinstein, Energy	Joshua Berger, Dept. of Commerce
Brian Sheldon, Shellfish Aquaculture	Tiffany Turner, Economic Development
Jennifer Hennessey, Governor's Office	VACANT, Shipping

Others Present (as noted on the sign-in sheet)	
Al Carter, GHMRC/CCF/Ocean Gold	Lauren McFarland, Quinault Indian Nation (phone)
Bobbak Talebi, Dept. of Ecology	Lee First, Twin Harbors Waterkeeper
Casey Dennehy, Dept. of Ecology	Mike Nordin, Pacific and Grays Harbor Conservation Districts

Christa Bale, WA Coastal Salmon Partnership	Molly Bogeberg, TNC
Emily Wright, Cascadia Consulting, Note-taker	Molly Bold, PGH-Westport Marina
Eric Kinne, WDFW, Panelist	Nicole Czarnomski, WDFW, Panelist
Erik Neatherlin, GSRO, Panelist	Paul Dye, WA Sea Grant
Frank Hanson, NPCLE WRIA 20	Ron Warren, WDFW, Panelist
Greg Mueller, Washington Trollers Association	Sonni Tadlock, WA Sea Grant/Ecology
Kate Litle, WA Sea Grant	Susan Gulick, Sound Resolutions, Facilitator
Katie Krueger, Coast Salmon Foundation	Tami Pokorny, MRC Jefferson County
Kevin Ducker, WA Sea Grant	Todd Souvenir, Wahkiakum MRC/Port
Kyle Adicks, WDFW, Panelist	Tressa Arbow, WA Sea Grant/Ecology

Salmon on WA Coast: An Overview

Susan Gulick introduced invited the following guests to deliver their presentations about salmon on the Washington Coast:

- Ron Warren and Kyle Adicks, WDFW – Salmon management and policy on the WA Coast
- Eric Kinne, WDFW – Hatchery management and Columbia River mitigation
- Nicole Czarnomski, WDFW – Status of salmon on the WA Coast
- Erik Neatherlin, GSRO – Salmon recovery efforts

Presentation materials are available at the WCMAC website. Summaries of the presentations and discussion are included in the Attachment to the Meeting Summary.

Public Comment #1

- Mike Nordin, Pacific and Grays Harbor Conservation Districts, commented that the cost for salmon recovery per fish is much lower on the coast than in Puget Sound. The Ruckelshaus Center report indicated that MRCs are a good strategy for cost-effective salmon recovery, but WDFW has not advocated on MRCs' behalf to secure more funding and sustainable funding. He strongly encouraged that WDFW dedicate staff for each MRC to advocate and coordinate with them, or otherwise have a different agency do so. He urged WCMAC to take more action and asked why Mitchell Act hatcheries have not gotten more funding.

June Meeting Summary

- Susan presented the two different formats of the meeting summary and asked for preferences.
 - Mike Cassinelli asked whether the summary will still be the permanent record of WCMAC meetings and Susan confirmed.
 - Rich Doenges said the intended audience will influence the decision. Susan noted that WCMAC members are the intended audience for the detailed record but the public/outside would be the intended audience for the shorter, visual format.
 - Several members expressed they prefer the detailed version, but liked some elements of the short version.
 - Katrina Lassiter proposed creating a hybrid, using a high-level summary of decisions and major takeaways with the detailed version. She proposed creating a public-facing document once per year to summarize the key highlights each year.
 - Susan and Emily Wright will discuss about a hybrid version for meeting summaries, as well as potentially a public-facing document at the end of each year.
 - Members confirmed they liked the meeting folders provided.
- No edits were made to the June meeting summary.
- ! The June meeting summary was adopted with no changes.

Coastal Updates

MRC Updates

- Pacific MRC recently hosted a clamming roundtable with 30-40 people in attendance and would like to do another one. WDFW clamming staff are looking for funding to replicate a meeting they attended in Alaska in Pacific County. They are also exploring a hatcheries roundtable with managers all along the coast.
- Wahkiakum MRC broke ground on a fish and food processing facility at local high school. They approved a couple proposals and support for high school classes in environmental studies and fish rearing at Beaver Creek Hatchery. In June, they completed their five-year pinniped monitoring study, which found that if fewer fish in the river means fewer pinnipeds.
- North Pacific MRC's RFP is open through November 11th for projects to advance 6th MRC benchmarks. It is available on the Jefferson County website. They are hosting the MRC summit in Forks on October 23th-25th. The MRC is looking for two people to join and invited WCMAC members to consider whether they know of anyone interested.
- Grays Harbor MRC is working on a project with Pacific Education Institute. The RFP is not available yet. They will support the summit and they have ongoing programming (e.g., field trips). There are 31 razor clam digs between now and the end of the season.

Agency Updates

- WA Sea Grant volunteers trapped 17 European green crabs near border with British Columbia. They are investigating to learn more about the situation and the extent of the issue.
- Washington Sea Grant is working with Ecology to hire staff person who will spend some time in southwest Washington. WA Sea Grant will also be undergoing its quadrennial site review in early November. Russell can provide more information.
- State Parks is holding a public meeting on October 8th from 6-8pm in Westport Maritime Museum about a proposal from a golf course development firm to develop property in a Recreation Concession Areas (RCAs) near Westport Light State Park.
- Dept. of Natural Resources has a vessel turn-in program. Last month, DNR removed Mary Anne from Westport. DNR is looking at a couple of other vessels of concern to allocate funding for removal.
- Dept. of Ecology is working with some permit issues with the City of Hoquiam for the potash export facility and another existing facility. They are optimistic of reaching an agreement with Grays Harbor Oyster Growers Association.
- Marine Spatial Planning efforts are doing education and outreach in all towns and counties on the coast to provide more information about current efforts. Upcoming outreach will be about implementation and with community stakeholders. The first of those will be at the MRC summit on Thursday, October 24th. They are looking at current data and data gaps and will do a workshop to determine what to prioritize moving forward. The West Coast Ocean Alliance will be held the first week of December in Tacoma with one day open to the public. The Alliance is a replacement for the regional planning body that was eliminated under the Trump Administration.
- Bobbak Talebi introduced the two new WA Sea Grant Hirschmann Fellows hosted at Ecology who will define and scope the resiliency efforts. Tressa Arbow and Sonni Tadlock will work at Ecology for one year.

MRAC

- MRAC met in September at Manchester Lab. They will share the summary with WCMAC. Among other things, they are working on ocean acidification (OA) and impacts on razor clams and oysters.
- Dept. of Ecology has a proposal for a general permit in nutrient management in association with OA impacts in Puget Sound. This is not applicable to the coast at this point, but worth being aware of.

General Coastal Updates

- The Coast Salmon Partnership is evaluating progress on their sustainable salmon plan. They are planning the next round of grant funding from the WA Coast Restoration and Resiliency Fund. The RFP will be released in February 2020.
- Dale noted that he will be traveling to Washington, D.C. at end of October to advocate for more funding to support the WA coast.
- Larry noted the importance of a full environmental impact statement for the potash terminal project in Grays Harbor. His community is concerned with an increase in vessel transits. He noted there is an upcoming public hearing. Other WCMAC members noted the City of Hoquiam extended the public comment period for the permit.
- Garrett encouraged people to apply for WCRR funding with strong proposals. He shared that The Nature Conservancy has a program called Community Catch that increases opportunities for local fishermen, increases value of fish from coastal communities, and increases access to local fish. The program's focus is on lesser known species. A consulting team will be doing a market analysis for the project, one of whom may be doing interviews on the coast in January.
- Gus announced that Surf rider will have a Monster Mash Surfing Bash at West Haven State Park with costumes and surfing lessons for kids and an evening event for adults.
- Rich O. announced that the Orca Task Force vessels working group is hosting a workshop focused on noise from commercial shipping. The final Task Force meeting is on Monday, October 7th at Intellectual House on the University of Washington Seattle campus.
- RD Grunbaum agrees with Larry that the potash terminal project needs an EIS. He noted that the Friends of Grays Harbor and other groups oppose the proposed project for a golf course on state park land.
- Mayor Dingler commented that Ocean Shores is conducting a on north coast resilience project with the help of TNC, WA Sea Grant, and other partners, exploring how to mitigate the economic impact of shoulder seasons on the coast.

Budget Update

- Katrina reported the status of the WCMAC budget. They received appropriation for about \$217,000 for two years, which is what was requested. DNR's overhead was accounted for in the request. The budget covers Susan's services and ecosystem indicator funds.

Other Updates

Economic Resiliency Workshop

- Rod provided an update about the workshop planning. The goal is to have the workshop in May and invite legislators to give evening welcome reception followed by a full day of policy discussion about what economic resiliency means on the coast and a practitioner session of logistical projects, programs, and resources for doing on-the-ground projects. Emily noted that a key goal is to inform recommendations from WCMAC to the Governor's Office regarding coastal economic resilience.
- Rod requested feedback about the proposed dates in May. It was noted that Friday would likely be easier for congressional representatives to attend. WCMAC members noted that generally, Thursdays and Fridays are not a problem, but noted to check the Olympic Coast Marine Advisory Calendar for 2020.
- The venue will likely be in Ocean Shores either at the convention center or Grays Harbor College. Mara Zimmerman noted she could work with Grays Harbor College and that nonprofits pay half the price.
- Jay Carmony asked whether recreation was a part of the workshop scope. Rod responded that recreation is one of the sectors identified.

Technical Committee

- The committee has recently been working on data gaps from MSP and implementation. All WCMAC members are welcome to join the calls on the first Tuesday of each month. Topics will change as things evolve.

WCMAC Workplan & Future Agenda Items

Susan opened up the discussion for the 2020 workplan. She asked whether the current items should be carried forward into 2020: Coastal Resilience, Ecosystem Indicators, Economic Resiliency Workshop, Science and Research Agenda.

- Garrett suggested discussing the Economic Resiliency Workshop at the June 10, 2020 meeting so WCMAC can hear outcomes and consider recommendations immediately following the workshop. The June 10th meeting would be an initial discussion, then the following meeting would include an action item with proper advance notification.
- Dale noted that WCMAC has not reviewed how the MSP will impact local communities and how it interacts with federal coastal zone management. Casey Dennehy clarified that the issue of consistency between the MSP and federal processes is regarding activities beyond three miles offshore, which is in federal waters. He suggested inviting BOEM to give a presentation about offshore energy developments to prompt discussion of how the MSP can be used to weigh in on those federal processes.
 - Corey Niles noted the MSP applies to state waters, but the intention has always been to have federal consistency and have as far-reaching an impact as possible.
 - Casey noted that the MSP is being reviewed by NOAA and it is unknown when it will be adopted.
 - Bobbak commented that Tressa will be looking into any case studies of MSP and BOEM.
 - Russell commented it be helpful to understand federal processes to take advantage and act. Doug commented it would be helpful to better understand WCMAC's role to know how it can act if there are threats. Bobbak noted that NOAA could potentially provide presentation on this topic.
- Larry noted he would like a discussion about recommendations of oil and gas exploration. It is pertinent to the discussion with BOEM, but specific to oil and gas.
- Mayor Dinger noted that coastal erosion and SLR topics are related. Susan clarified that the science policy workshop, which received funding, will include coastal erosion. Russell suggested that Ian Miller could provide a briefing about the CIG and WA Sea Grant SLR report. Bobbak suggested it could be combined for a more holistic conference of hazards on the coast, including tsunami mapping from DNR, landslides, and an opportunity for community to interact with scientists.
 - Bobbak noted that a conference like that would be best before WCMAC considers recommendations for economic resilience, and that those recommendations need to also include the importance of salmon to the coastal economy and resilience to hazards, in addition to economic resilience overall.
 - Bobbak noted a coastal hazards conference would likely be a separate event, not like the state of salmon on the coast, because it would be hard to pack it into a WCMAC meeting.
- Rich O. noted that offshore aquaculture is likely to happen, so it should be considered, and that this could be a primary vector for invasive species.
- Larry proposed that the definition of a hazard should be expanded to include projects that could threaten coastal economic resiliency.
- Mike C. noted that both finfish and shellfish fishing need to be considered when talking about fishing, as they are both economic drivers of the coast.
- Corey noted that the Pacific Management Council may be able to provide a remote presentation about their annual report around the March timeline.
- Susan summarized that the main topics on the front page of work plan have not changed, but we have gained more clarity on some of them. Susan will scope out the potential topics for the next five meetings and bring them to the December meeting for review.

- It was noted that WCMAC needs to elect a new Vice Chair. This will be done at the December meeting.

December Meeting Topics

- Susan noted that the final 2020 workplan will be on the agenda and other topics were suggested:
 - Briefing on the potash terminal and funding received for hydrogen conversion.
 - Five-year review of WA Coastal Zone Management Program. Bobbak noted he can provide an update on the 309 review and public comment process.
 - Harmful Algal Bloom presentation from Anthony Odell from Grays Harbor College, and Sound Toxins Monitoring Program
 - Burrowing shrimp

Public Comment #2

- Mike Nordin commented that conservation groups have project in Twin Harbor Bays upper watershed and the North Cove revetment project achieved no lost soil in recent years. They are using funding from Representative Walsh to research sediment movement and loading, shellfish industry, and invasive species mapping. Regarding burrowing shrimp, he strongly recommends WCMAC support an IPM model to address this issue. He noted there are two additional derelict vessels on the Columbia River and that the renewal for Japonica NPDS is open and available for comments.
- Paul Dye commented that WA Sea Grant was tasked by Governor's Office to build dialogue among resource managers and shellfish growers. They will hold a public workshop on October 28-29th and noted this is a research program, rather than a public decision process. More information is available on WA Sea Grant's website.

WASHINGTON COASTAL MARINE ADVISORY COUNCIL MEETING

Wednesday, October 2, 2019
Attachment to the Meeting Summary

Salmon on WA Coast: An Overview

Susan Gulick introduced guests to deliver their presentations about salmon on the Washington Coast. Presentation materials are available at the [WCMAC Website](#).

Ron Warren and Kyle Adicks, WDFW, gave a presentation about salmon management and policy on the WA Coast. Key points from their presentation are as follows:

- The issues being navigated are very complex and include a lot of controversy.
- Pacific Salmon Treaty (PST)
 - Signed by Canada and the United States and initiated in 1985; before that time, there were no constraints to prevent stocks from being fully fished in Alaska/British Columbia before returning to Washington rivers.
 - Objectives are: proportional sharing of harvest; prevent overfishing; and support optimum production.
 - Separate treaties for each species in 10-year intervals; Chinook treaty updated in 2019 and led to reductions in Alaskan and Canadian fisheries (7.5-12.5%) as well as minimal reductions in Puget Sound on Canadian stocks passing through US waters.
 - Canada made major reductions beyond what was required by the PST.
- Pacific Fisheries Management Council (PFMC)
 - Manages sport and commercial salmon fisheries in federal waters off coast from Mexico to Canadian border. States, tribes, federal agencies have representation.
 - PFMC has produced economic analyses regarding fluctuations in community income from recreational fishery. Between 2018 and 2019 there was a reduction in income due to 2015 dip in Coho salmon run.
- North of Falcon Co-manager Forum
 - Constituents and tribes work as co-managers and undergo a 7-week process of management planning for seasons, addressing five species with over 25 tribes. Treaties, federal requirements, and state laws all must be taken into account.
 - Catch sharing for Puget Sound "inside" fisheries is not always 50/50 between tribes and constituents; it is more complicated with mixed stock fisheries and different objectives among treaty and non-treaty fisheries.
- Key challenges with salmon management and policy include:
 - Declining abundance in the following runs:
 - Puget Sound Chinook. The 10-year average of wild returns has declined by 28% since prior to ESA listing in 1999, from about 40,000 to just under 30,000. Recovery actions are being taken statewide to reduce impact, but progress is still not being made.
 - Columbia River Coho. Ocean abundance led to major drop-off in 2015, with persistent declines in subsequent years.
 - Lower Columbia Chinook. Since the ESA management system is abundance based, just a small difference (a few percent) in abundance can have a significant impact on fishery. This run is more hatchery-driven with a smaller wild population.
 - Upper Columbia Chinook. When abundance threshold dips below 200,000, the in-river harvest rate is nearly halved.
 - Numbers between wild and harvest populations are available, but were not prepared for the presentation.

- Hostile environmental conditions, especially in the ocean. Warmer sea surface temperatures in 2014-2015 led to food chain abnormalities and a major decline in Coho abundance in 2015. There were fluctuations in conditions since then and it is unknown what conditions will do by January and February 2020.
- ESA listing. WDFW is examining impacts of Puget Sound and ocean fisheries on Southern Resident Orcas to identify how much of a reduction is acceptable.

Eric Kinne, WDFW, gave a presentation about hatchery management and Columbia River mitigation. Key points from the presentation are as follows:

- The first hatcheries appeared in the late 1800s in California, Oregon, and Washington to address first major decline in salmon fisheries. Hatcheries address demand, support conservation, and mitigation due to hydropower projects, toxic spills, and other impacts from human activities.
- In the greater Columbia River basin, hatcheries are intended to offset many active dams. Hatcheries use either total adult ocean population (pre-harvest) or juvenile production to determine whether mitigation targets are met.
- Current production levels of hatchery fish in Columbia River and coastal Washington were provided. This year, about 17 million salmon and steelhead were released on WA coast.
- Production at WDFW hatcheries funded by the Mitchell Act have declined from about 35 million releases to about 15 million between 1989 to 2018, which is largely due to lack of funding as well as changes in recovery plans and practices.
- WDFW releases in Grays Harbor and Willapa Bay have also declined over time.
- Southern Resident Orcas
 - In response to recommendation from Task Force report, studies have begun to evaluate hatchery production potential to provide additional prey.
 - WDFW created a conceptual model for determining where to increase production based on three factors: 1) which stocks were observed in Orcas' diet, 2) whether stocks were consumed during time when fish normally do not return to home areas, and 3) whether they were eating fish multiple times a year, e.g., they were feeding on Lower Columbia Tules stocks at two different times during the year.
 - They found that Puget Sound and Columbia stocks are very important to Southern Resident Orcas, compared to Oregon or California stocks. Snake River (Idaho) spring/summer runs are also very important to the Orcas based on the data, but it was noted that the data was very limited for this study.
 - WDFW increased production in 2019 to provide additional prey and is proposing to increase production by about 17.5 million across the state to supplement. WDFW also have budget to support tribal hatchery increases by about 8.5 million during this brood year.

Nicole Czarnomski, WDFW, gave a presentation on the status of salmon on the Washington Coast. The key points from the presentation are as follows:

- The greatest challenge facing salmon is human development and population growth, which impacts salmon because:
 - Increased human water use means lower in-stream water availability, which can lead to warmer stream temperatures in summer.
 - More activity in the floodplain could mean lack of woody debris in streams, which reduces habitat quality.
 - A legacy of complete or partial fish passage barriers can block access to habitat, in some cases entire streams if they are lower down in the system.
- Land use and forest management poses another key challenge. There are still legacy impacts from earlier forest practices that are still being addressed.
- Climate change poses challenges as well, including increasing stream temperatures; greater intensity storms causing greater scour and less gravel, as well as stress on the floodplain; longer periods of drought in summer and early fall; and less water storage in floodplain.

- In future scenarios for spring Chinook in Chehalis Basin, when looking at abundance and human development impacts combined, the population size would decrease significantly by the late 21st century if no action is taken, possibly to extirpation.
- The most powerful tool to take action is to protect habitat and landscapes through partnership in land use management to integrate different parts of the watershed.
- The permitting process is another protection tool, as it enables WDFW to participate in conversations and inform decisions about what happens in the floodplain. WDFW is looking for more funding to work more closely with landowners.
- Removing fish passage barriers is another critical piece of the puzzle. Local jurisdictions do not have enough funding to do it all.
- Habitat restoration is a tool to address legacy impacts on the landscape. When assessing the effectiveness of restoration, it is difficult to determine how one habitat project has an impact on a population scale.
 - One example is the Abernathy Intensively Monitored Watershed. It is a 10-year-old study and there are initial signs that the population is responding to habitat improvement projects, but it takes time to see value.
 - Other examples that have shown initial signs of an increase in population are the Yakima Basin Integrated Plan and Skagit Fisheries Enhancement Group.
 - Larger investment over space and time has more potential to see a population response.

Erik Neatherlin, GSRO, gave a presentation on salmon recovery efforts. Key points are as follows:

- Currently, 15 salmon and steelhead runs are federally ESA listed in Washington, which represents almost half the populations and covers over three-quarters of land area—so it affects most of the state.
- Washington took a proactive state-based approach to develop a strategy and recovery act in the late 1990s called “The Washington Way”.
- Currently, recovery plans have been completed with an all-H approach: Harvest, Hatcheries, Hydro, and Habitat. Many low-hanging fruit projects have been completed and partnerships formed.
- Next steps are to work on larger scale and more complex projects, which requires leveraging all investments made so far and reaching out to new partners.
- Currently, funding is only 15% of what is needed for salmon recovery. This only addresses habitat restoration, but the organizational infrastructure is also underfunded.
- Multiple reports track recovery progress. Status is getting worse for the upper Columbia River Spring Chinook and Puget Sound Chinook. Runs that are approaching goals are the Hood Canal Summer Chum and Snake River Fall Chinook.
- Along WA coast, two of the eight salmonid species are ESA listed (sockeye and bull trout), which is relatively few compared to other parts of the state. Coho is most abundant and Chinook is least on the coast. There are 275,000 total fish, which is more than human population (about 200,000). The coast has better habitat than other areas, and still continues to work on restoring habitat. It is critically important to protect the best of what Washington has.

Discussion and questions

- Gus Gates asked whether the Coho life history strategy of residing for a summer or over a year in the stream before outmigration to the ocean makes them more vulnerable than other species, and whether an increased effort is needed specifically for Coho. Panel responded that restoration is not necessarily more important for any single species; it is important for all species. However, Coho and steelhead do spend a lot of time in freshwater compared to pink and chum, so it is especially important to them.
- Garrett Dalan requested details about statistics from Kyle’s presentation about impacts on local incomes.

- Garrett commented that in upper reaches, invasive species are significantly impacting otherwise pristine habitat. He noted potential for synergy with state programs for small upper tributary restoration to reengage floodplains, create cold refugia, provide flood control, and increase summer in-stream flows. Panel responded that there are efforts happening in the Chehalis Basin and many groups acting at different levels throughout the region with many opportunities for partnerships.
- Russell Callender asked how proposed changes to ESA listing under current federal administration will affect salmon recovery in Washington. Panel responded that the federal administration is not amending the actual ESA, but rather proposing changes to the implementing rules. The state agencies are still determining what the impact may be. The biggest issue with the proposed changes is that they may make it easier or more likely for additional changes to be made. One change is how critical habitat for newly listed species is designated moving forward.
- Russell asked whether delisting the Hood River Chum send a message of false hope, as it does not represent the bigger picture of salmon recovery in the state. Panel responded that no, because right now, people in Washington, D.C. need to see even a small success to think it is still worth it to continue funding salmon recovery efforts. Salmon is bipartisan issue, and a message like this can help reinvigorate the efforts. Chum is the first indication that things are working.
- Dave Fluharty asked for information about adult returns from hatchery production, and the role of predation of outmigration juveniles and other factors. Panel responded that it is difficult to say why the adult returns go up and down, but they can provide data. Dave asked whether the return rate is higher for hatchery stocks or wild stocks. The panel said they can provide that data as well.
- Mike Cassinelli commented that it would be great to see state and private sector partnerships continue, based on their success in working together on hatcheries, specifically at Chinook facility. Panel agreed that the Chinook facility is a great partnership. They noted it is difficult to compare the 80 hatcheries statewide and to Alaska, and that WA is the only state that co-manages with 20 other nations. Funding is a complex part of the co-management system.
- Mike also expressed appreciation for acknowledging the accomplishments made on the coast, and noted that not enough funding from the Salmon Recovery Fund Board (SRFB) is spent on the coast compared to Puget Sound.
- Dale Beasley asked what it will take within the next five years to get people fishing again and bring money back into coastal communities. Panel noted that it is difficult to know when populations will be able to provide some stability and predictability for people since there are so many factors involved. Having at least a couple of consistent years in a row offers predictability for people to invest, plan, etc.; that is when people can actually rely on it for an income. A couple of nonprofit partners are raising awareness about harvests and where communities can buy fresh fish, which offers some short-term boosts.
- Dale also asked whether it be worth considering changing the Marine Mammal Protection Act to reduce predation. The panel responded that WDFW worked hard to have flexibility within the MMPA in the Columbia River. The factors due to the scale of the ecosystem outweigh the impact from the marine mammal population, so it is important to be careful to make changes and maintain balance. There need to be sustained approaches. Well-supported ecosystems have been essential for salmon recovery in Washington. If we can see progress by removing predators, then we should. But on the WA coast, a study regarding predation was not funded. If folks are passionate about pursuing this approach, it would be worth advocating to secure funding for this study from the legislature. WDFW has been working on understanding this issue, but without additional funding they are limited in what they can do.
- Rod Fleck asked why there was a dramatic drop in returns between 1991 to 1994. The panel responded that there was likely a drop in both hatchery and wild returns, so it was more an issue of survival conditions than of hatchery production.
- Rod also commented that to some extent rural areas are bearing the cost of population and development impacts in the rest of the state, particularly Puget Sound, and that it is unlikely that buildings and development in urban areas are held to the same permitting standards as rural areas. Panel responded that the best approach is to discuss with counties and municipalities about decisions being made, and groups like WCMAC are helpful to have those

conversations. Impacts from Puget Sound are different than other parts of the state, and things have to be done differently to support recovery.

- Larry Thevik asked how the cost of increasing fish production in hatcheries to support Orca prey availability relates to the cost of operations to reach that production. The panel responded that it is not a linear increase, as most of the base costs for operations are already available. The budget proposal to increase production was based on the costs for feeding fish, power, adipose clipping, and staffing needs, and less so on increased infrastructure and resources.
- Larry also asked whether the estimates of abundance match the actual numbers of return. Panel responded that the estimates are the best they have based on outgoing juveniles and ocean conditions. In some systems, only adult spawners are known, so they have adult-to-adult estimates only. Forecasting is imperfect, such as in 2015 when forecasts were not adjusted enough for the warm blob in the ocean, which was unlike anything seen before. There is no quantitative in-season estimation during the ocean season to know what is happening. They have to wait until fish get closer to terminals before there is an initial idea of what is actually happening.
- Larry asked whether interception, or when salmon originating from one river system or country is harvested by fishers in a different system or country, still guides policy for where fish are produced. Panel said that it is largely based on facility capacity, and that WDFW would rely on the large network of people involved in management before making a decision about management policy.
- Mayor Crystal Dingler asked whether hatcheries were still terminating projects due to lack of funding and if so, how frequently that happened. Panel responded that there is policy stating that hatcheries cannot release fish if they cannot trap them in return, which limits the hatcheries when there is a shift in funding. In those cases, WDFW tried to find an alternative use of investment. There is more stable funding now and throwing out of stock no longer happens.
- Doug Kess commented that on the coast, they can restore a larger area of habitat for a lower cost compared to an urban area, such as in the south end of Willapa Bay.
- Gus asked whether there is an opportunity to expand beyond culverts and consider tidal estuary wetland restoration to address sea level rise and blue carbon sequestration. Panel responded that there is opportunity in the Columbia River and the Puget Sound nearshore estuary restoration program has been working on this, with significant progress over the last few years in getting through administrative steps. They noted it is a good time to put pressure on elected officials to get federal funding to support that work. Another part is to help people understand the value of estuary restoration with conservation science and messaging, such as debunking myths that estuaries are only pass-throughs and less important than freshwater ecosystems.
- Rich Osborne asked whether there is any indication that state of Washington may take a triage approach and focus on stronghold stocks, noting that Senator Cantwell proposed to let go of The Washington Way, but to create a new pool of funding for stronghold stocks. The panel responded that they follow the Governor's direction. Triage cannot be considered without recognizing tribal treaty obligations, and it is a very complex conversation. Rather than a triage approach, it may be about investing in certain parts of the state where there can be a higher return on investment.
- Rich O. also asked whether the genetic diversity of wild stocks makes them better prepared to changing environmental conditions than hatchery stocks. He commented that they should not give up on wild fish. The panel responded that WDFW is looking at hatchery reform policy, but that there is risk involved and other policy, socioeconomic, and cultural considerations involved in stepping back from hatcheries.
- Dale asked how citizens can support policy issues and ensure management is supporting communities. Panel responded that they consider both the best available science and socioeconomic factors. Citizens can talk to local fish and wildlife commission and local legislators.
- Larry asked why the data seemed to indicate a greater economic benefit in California and their salmon fisheries than in Washington. Panel responded that some economic numbers show fisheries in San Francisco areas higher than here, and a lot of that is due to hatchery production.

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**POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON**

WILLAPA-GRAYS HARBOR
OYSTER GROWERS
ASSOCIATION,

Appellant,

v.

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Respondent.

and

AD HOC COALITION FOR
WILLAPA BAY, CENTER FOR
FOOD SAFETY, CENTER FOR
BIOLOGICAL DIVERSITY, and
COALITION TO PROTECT PUGET
SOUND,

Respondent-Intervenors.

PCHB No. 18-073

JOINT MOTION TO DISMISS

Respondent State of Washington, Department of Ecology, represented by Robert W. Ferguson, Attorney General, and Ivy Anderson, Assistant Attorney General, and Appellant, Willapa-Grays Harbor Oyster Growers Association (WGHOGA), represented by Doug Steding, Northwest Resource Law PLLC, hereby submit this Joint Motion to Dismiss.

I. MOTION TO DISMISS

Based upon the attached Settlement Agreement, hereby incorporated by reference, the parties move the Pollution Control Hearings Board for an Order to dismiss this appeal with prejudice.

RESPECTFULLY SUBMITTED this 15th day of October 2019.

ROBERT W. FERGUSON
Attorney General

NORTHWEST RESOURCE LAW PLLC



IVY M. ANDERSON, WSBA #30652
Assistant Attorney General
Attorneys for Respondent
State of Washington
Department of Ecology
360-586-4619

DOUGLAS J. STEDING, WSBA #37020
Attorney for Appellant
Willapa-Grays Harbor Oyster Growers
Association
206-971-1567

Dated: 10/15/2019

Dated: _____

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Based upon the attached Settlement Agreement, hereby incorporated by reference, the parties move the Pollution Control Hearings Board for an Order to dismiss this appeal with prejudice.

RESPECTFULLY SUBMITTED this ____ day of October 2019.

ROBERT W. FERGUSON
Attorney General

NORTHWEST RESOURCE LAW PLLC



IVY M. ANDERSON, WSBA #30652
Assistant Attorney General
Attorneys for Respondent
State of Washington
Department of Ecology
360-586-4619

DOUGLAS J. STEDING, WSBA #37020
Attorney for Appellant
Willapa-Grays Harbor Oyster Growers
Association
206-971-1567

Dated: _____

Dated: 10/15/19

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**POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON**

WILLAPA-GRAYS HARBOR
OYSTER GROWERS
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Appellant,

v.

STATE OF WASHINGTON,
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and

AD HOC COALITION FOR
WILLAPA BAY, CENTER FOR
FOOD SAFETY, CENTER FOR
BIOLOGICAL DIVERSITY, and
COALITION TO PROTECT PUGET
SOUND,

Respondent-Intervenors.

PCHB NO. 18-073

SETTLEMENT AGREEMENT

The State of Washington, Department of Ecology, represented by Robert W. Ferguson, Attorney General, and Ivy Anderson, Assistant Attorney General, and Appellant, Willapa-Grays Harbor Oyster Growers Association (WGHOGA), represented by Douglas Steding, Northwest Resource Law PLLC, hereby submit this Settlement Agreement to the Pollution Control Hearings Board (Board) as a full and final settlement of the above-referenced appeal, and request that the Board dismiss the appeal with prejudice.

1 **I. PROCEDURAL STIPULATIONS**

2 1. On January 8, 2016, the WGHOGA transmitted an application package to
3 Ecology seeking an NPDES permit for the discharge of imidacloprid in Willapa Bay and Grays
4 Harbor via ground applications and applications from boat. As used in this document,
5 WGHOGA refers exclusively to the subset of members of WGHOGA that have pursued this
6 January 8, 2016 NPDES permit.

7 2. On February 10, 2016, Ecology requested additional information regarding the
8 2016 NPDES permit application, including two applications for sediment impact zone
9 authorizations for Willapa Bay and Grays Harbor.

10 3. On March 17, 2016, WGHOGA provided additional information to Ecology for
11 the 2016 NPDES permit application along with sediment impact zone authorization applications
12 for both Willapa Bay and Grays Harbor.

13 4. Ecology determined the WGHOGA 2016 NPDES permit application and
14 sediment impact zone authorization applications were complete on June 23, 2017.

15 5. On May 24, 2016, Ecology issued a State Environmental Policy Act (SEPA)
16 Determination of Significance regarding the NPDES permit application and adopted and
17 incorporated by reference the 2015 Final Environmental Impact Statement, which was issued for
18 a 2013 NPDES application to discharge imidacloprid in Willapa Bay and Grays Harbor.

19 6. Ecology conducted a Supplemental Environmental Impact Statement (2018
20 SEIS) specific to the 2016 NPDES application and sediment impact zone authorization
21 applications. A public comment period was held on the draft 2018 SEIS from September 18,
22 2017, through November 1, 2017. Two public meetings were held in October 2017. Ecology
23 issued the Final 2018 SEIS on January 5, 2018.

24 7. On April 9, 2018, upon making a “tentative staff determination” to deny the 2016
25 NPDES permit application, Ecology issued a Notice of Intent to Deny NPDES Permit for public
26 review and comment. The comment period last from April 9, 2018, through May 14, 2018. Upon

1 completion of the public comment period and review of comments received, Ecology issued a
2 Final Determination to Deny NPDES permit on September 27, 2018.

3 8. On October 26, 2018, WGHOGA filed an appeal of Ecology's 2016 NPDES
4 permit application decision.

5 9. Ecology and WGHOGA have agreed to fully resolve the appeal of Ecology's
6 denial of the NPDES permit application through the settlement outlined below.

7 II. SETTLEMENT AGREEMENT

8 The parties desire to resolve the dispute herein and avoid the cost and time associated
9 with further litigation. The parties therefore stipulate and agree as follows:

10 A. RESOLUTION OF APPEAL

11 This Settlement Agreement constitutes the entire agreement between the parties to this
12 appeal, and settles all issues raised by WGHOGA's appeal filed on October 26, 2018. As used
13 in this Settlement Agreement "Integrated Pest Management" or "IPM" shall mean the following:

- 14 • A coordinated decision-making and action process that uses the most appropriate pest
15 control methods and strategy in an environmentally and economically sound manner
16 to meet the objective of controlling burrowing shrimp populations in Willapa Bay
17 and Grays Harbor to facilitate continued shellfish cultivation on tidelands. The
18 elements of this IPM plan are anticipated to include:
 - 19 ○ Identifying ways to prevent burrowing shrimp problems in Willapa Bay and
20 Grays Harbor.
 - 21 ○ Monitoring of the presence of burrowing shrimp on shellfish beds in Willapa Bay
22 and Grays Harbor.
 - 23 ○ Quantifying the damage caused to shellfish beds by burrowing shrimp in Willapa
24 Bay and Grays Harbor.
 - 25 ○ Establishing acceptable densities of burrowing shrimp that can be tolerated
26 without treatment.

- 1 ○ Treatment to reduce populations of burrowing shrimp on shellfish beds to below
2 established thresholds using biological, cultural, mechanical, and chemical
3 control methods that consider human health, ecological impact, feasibility, and
4 cost-effectiveness.
- 5 ○ Evaluating the environmental effects and efficacy of burrowing shrimp
6 treatments.

7 Under terms of this Settlement Agreement, the parties will undertake the following
8 activities:

- 9 • Participate in a Working Group and work cooperatively to, as expeditiously as
10 possible, identify an Integrated Pest Management plan approach to control and
11 manage the burrowing shrimp infestation that is affecting WGHOGA oyster beds in
12 Willapa Bay and Grays Harbor. The parties agree that such a plan will include
13 chemical and non-chemical controls, with the goal of minimizing chemical use and
14 maximizing its effectiveness. Any plan developed pursuant to this Settlement
15 Agreement or using funds obtained by the parties pursuant to this Agreement will not
16 include the use of imidacloprid. Laboratory studies comparing imidacloprid to other
17 possible chemical control methods may be a part of the research conducted pursuant
18 to this Agreement.
- 19 ○ Ecology commits to support research projects required to develop the IPM plan.
20 The agency's support will include providing technical advice and assistance,
21 including advice on the necessity of obtaining permit(s) or approval(s). Ecology's
22 presence on the Working Group does not imply endorsement or approval by
23 Ecology of any application(s) to be submitted by WGHOGA for permit(s) or
24 approval(s) which may be required to implement any aspect of an Integrated Pest
25 Management plan. Both parties shall bear their own costs of staff time in
26 participating in the Working Group and development of the IPM plan.

- 1 ○ To the extent practicable and provided funding is available, the Working Group
2 will seek to conduct research project(s) on the following topics in the 2019–2020
3 research season:
- 4 ▪ Development of a burrowing shrimp monitoring program in Willapa Bay and
5 Grays Harbor to assess impacts to shellfish beds and population trends.
 - 6 ▪ Assessment of past research regarding acceptable shrimp densities on a
7 variety of shellfish beds.
 - 8 ▪ Laboratory studies designed to evaluate the efficacy and possible impacts of
9 alternative chemicals to imidacloprid to be used as chemical controls for
10 burrowing shrimp in an IPM plan.
 - 11 ▪ Assessment of non-chemical control options for burrowing shrimp and
12 shellfish beds (e.g., including the work of Department of Natural Resources).
 - 13 ▪ Provided the laboratory studies identify chemical(s) that may be promising in
14 terms of efficacy in controlling burrowing shrimp, and low impact to non-
15 target organisms, the parties will work towards development of a 2020 field
16 study protocol that will include: (a) field trials of alternative chemical(s) that
17 may be used to control burrowing shrimp in conjunction with non-chemical
18 methods; (b) further exploration of mechanical methods such as spike wheel
19 injectors; and (c) continued dye studies to understand movement of water in
20 the bay to help develop strategies that will minimize the use and impacts of
21 chemicals.
 - 22 ▪ Additional project(s) as mutually agreed to by the Working Group.
- 23 • Identify at least one representative to participate in the Working Group regarding
24 development of an Integrated Pest Management plan to address burrowing shrimp in
25 Willapa Bay and Grays Harbor. Ecology’s representative will have authority to
26 represent both the Water Quality and Toxic Cleanup Programs at Ecology, and to

1 make commitments of staff time and resources from the Department as necessary to
2 fully support the Working Group. WGHOGA's representative will have authority to
3 represent the Growers and to make commitments of time and resources as necessary
4 to fully support the Working Group.

- 5 • The Working Group will meet for a period of at least one year, dating from the
6 effective date of this Agreement. The Working Group may be extended by mutual
7 agreement of the parties.
- 8 • Ecology will host a Working Group meeting every other month for the one-year time
9 period in Lacey, Washington. WGHOGA will host a Working Group meeting every
10 other alternate month for the one-year time period in Pacific County, Washington.
- 11 • The parties will jointly invite representatives from the Departments of Agriculture,
12 Natural Resources, Commerce, and the Conservation Commission, and a mutually
13 agreed to environmental interest to participate in the Working Group.
- 14 • Ecology will engage with WGHOGA or its representatives as the Growers seek to
15 obtain funding through legislative appropriation request in the Supplemental
16 Legislative Session beginning in January 2020. The appropriation request to be
17 submitted by WGHOGA will seek the following:
 - 18 ○ An appropriation of \$650,000 to be used exclusively to fund research related to
19 development of the IPM plan. As detailed above, IPM plan research projects may
20 include investigation of chemical controls as one aspect of the plan, but will not
21 include use of imidacloprid as a chemical control. To the extent permitted by law,
22 research projects to be funded from this appropriation would be identified and
23 mutually agreed to as part of the Working Group activities.

24 **B. WAIVER OF APPEAL RIGHTS**

25 WGHOGA understands that it has the right to appeal Ecology's decision to deny the
26 2016 NPDES permit application by presenting evidence at a Board hearing. WGHOGA

1 voluntarily waives its right to a hearing upon signature and acceptance of this Settlement
2 Agreement by representatives for WGHOGA and Ecology.

3 **C. DISMISSAL OF APPEAL**

4 The parties consent to the submission of this Settlement Agreement to the Board and
5 request that, based upon a full and final settlement having been reached, the Board dismiss this
6 appeal with prejudice. Both parties further agree to forego all costs and attorneys' fees associated
7 with this appeal.

8 **D. EFFECTIVE DATE**

9 This Settlement Agreement shall become effective upon the Board's dismissal of this
10 appeal.

11 **E. SIGNATORIES AUTHORIZED**

12 The undersigned representatives for Ecology and WGHOGA certify that they are fully
13 authorized by the party whom they represent to enter into the terms and conditions of this
14 Settlement Agreement and to legally bind such party thereto.

15 **F. EXECUTION**

16 This document may be executed in counterparts and may be executed by facsimile and/or
17 electronically, and each executed counterpart shall have the same force and effect as the original
18 instrument.

19
20 STATE OF WASHINGTON
21 DEPARTMENT OF ECOLOGY

20 WILLAPA-GRAYS HARBOR OYSTER
21 GROWERS ASSOCIATION

22 

23 _____

23 RICH DOENGES
24 Department of Ecology
25 Southwest Regional Director

23 KEN WIEGARDT
24 President
25 Willapa Grays Harbor Oyster Growers
26 Association

26 Dated: 10/14/19

Dated: _____

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21 DEPARTMENT OF ECOLOGY

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24 RICH DOENGES
25 Department of Ecology
26 Southwest Regional Director

Dated: _____

WILLAPA-GRAYS HARBOR OYSTER
GROWERS ASSOCIATION

22
23 _____
24 KEN WIEGARDT
25 President
26 Willapa Grays Harbor Oyster Growers
Association

Dated: 10/15/19

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ROBERT W. FERGUSON
Attorney General

NORTHWEST RESOURCE LAW PLLC



IVY M. ANDERSON, WSBA #30652
Assistant Attorney General
Attorneys for Respondent
State of Washington
Department of Ecology
360-586-4619

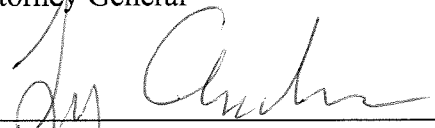
DOUGLAS J. STEDING, WSBA #37020
Attorney for Appellant
Willapa-Grays Harbor Oyster Growers
Association
206-971-1567

Dated: _____

Dated: 10/15/19

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ROBERT W. FERGUSON
Attorney General



IVY M. ANDERSON, WSBA #30652
Assistant Attorney General
Attorneys for Respondent
State of Washington
Department of Ecology
360-586-4619

Dated: 10/15/2019

NORTHWEST RESOURCE LAW PLLC

DOUGLAS J. STEDING, WSBA #37020
Attorney for Appellant
Willapa-Grays Harbor Oyster Growers
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206-971-1567

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**POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON**

WILLAPA-GRAYS HARBOR OYSTER
GROWERS ASSOCIATION,

Appellant,

v.

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Respondent.

and

AD HOC COALITION FOR WILLAPA
BAY, CENTER FOR FOOD SAFETY,
CENTER FOR BIOLOGICAL
DIVERSITY, and COALITION TO
PROTECT PUGET SOUND,

Respondent-Intervenors.

PCHB NO. 18-073

CERTIFICATE OF SERVICE

Pursuant to RCW 9A.72.085, I certify that on the 15th day of October 2019, I caused to be served the Joint Motion to Dismiss in the above-captioned matter upon the parties herein as indicated below:

DOUGLAS J. STEDING
MADELINE ENGEL
NORTHWEST RESOURCE LAW PLLC
101 YESLER WAY, SUITE 205
SEATTLE, WA 98104

U.S. Mail
 Hand Delivered
 Overnight Express
 Email
dsteding@nwresourceclaw.com
mengel@nwresourceclaw.com
ehinkes@nwresourceclaw.com

1 LARRY WARNBERG
2 AD HOC COALITION FOR WILLAPA BAY
3 31 HURT ROAD
4 RAYMOND, WA 98577

U.S. Mail
 Hand Delivered
 Overnight Express
 Email
warnberg@pacifier.com

4 ANDREW HAWLEY
5 WESTERN ENVIRONMENTAL LAW CENTER
6 1402 3RD AVE, SUITE 1022
7 SEATTLE, WA 98101

U.S. Mail
 Hand Delivered
 Overnight Express
 Email
hawley@westernlaw.org

7 the foregoing being the last known address.

8 I certify under penalty of perjury under the laws of the state of Washington that the
9 foregoing is true and correct.

10 DATED this 15th day of October 2019, in Olympia, Washington.

11 
12 DANIELLE E. FRENCH, Legal Assistant

WASHINGTON COASTAL MARINE ADVISORY COUNCIL COASTAL ECONOMIC RESILIENCE WORKSHOP MAY 14-15, 2020 | GRAYS HARBOR COLLEGE

Background

The Washington Coastal Marine Advisory Council's (WCMAC) is pursuing a Governor's request to identify high priority needs and actions to carry out the recommendations listed in the Ruckelshaus Center's "Washington State Coast Resilience Assessment." The Assessment highlights that a critical aspect of community resilience on Washington's outer coast is economic well-being. Median incomes on the coast are low relative to many other parts of the State, unemployment rates are high, and natural resource dependent communities disproportionately impacted by changing environmental conditions. It is challenging for coastal communities and individuals to dedicate the necessary energy or investment into being proactive for the future when they are having a difficult time surviving in the present.

Goals and Objectives

The goal of the workshop is to define a collective future vision for economic resilience on the Washington coast and develop recommendations that will better equip communities to address this complex problem and advance alternative paths. The objectives for the workshop are as follows:

- Create a **shared understanding** about economic resilience challenges on the Washington coast.
- Generate and compile a list of **projects in coastal communities** that support the vision for economic resilience and require funding, indicating those in opportunity zones.
- Identify potential **opportunities for supporting projects** (e.g., grant programs and other funding sources).
- Inform and shape **recommendations from WCMAC to Governor's Office** for building economic resilience on the Washington coast and elevating the conversation statewide.

WCMAC's Role

WCMAC is envisioned as a convener for this workshop. A high-level briefing about the workshop will be shared at the June WCMAC meeting. If the outputs of the workshop allow, the WCMAC support staff will take the outputs (likely conceptual ideas) and package them into draft recommendations for the WCMAC Steering Committee to review. Once revised, the recommendations will be put before the WCMAC at the September WCMAC meeting to consider for adoption.

Budget

The budget table includes estimated costs for preparations, day-of event, and post-event processing of notes. Most of the time involved in line items 1, 4, and 5 will be covered by existing contracts with WCMAC support staff. In-kind support for line items 2 and 5 may be provided by Washington Sea Grant and other partners.

Item	Estimated Cost
1. Planning and Preparation	\$4,500
2. Promotion and Registration	\$200
3. Venue Rental, Catering, and Supplies	\$4,300
4. Workshop Prep and Day-of Facilitation	\$4,000
5. Post-Event Processing	\$3,500
Total	\$16,400

Draft Program Outline

The workshop is envisioned to include an evening reception on May 14, 2020 followed by a one-day conference on May 15. A draft of the program outline is as follows:

1. **Frame the conversation:**
 - Legislative representatives and other regional leaders give keynote addresses or speak on a panel to frame the conversation about coastal economic resilience.
 - Define and characterize the nature of the problem (e.g., jobs, wages, infrastructure).
 - Presentations about case studies from other communities across the country that have faced similar problems, including lessons learned, what worked, and how they found funding.
2. **Solutions mapping:**
 - Two sessions of breakout groups at various tables focused on different topics. Discussions at tables will be focused on identifying goals and action items for how these solutions can work for the coast.
 - First session table topics are based on sectors/industry clusters. Discussion at tables focused on identifying major issues and opportunities within each sector.
 - Second session table topics are based on cross-sector project areas, such as: housing, broadband/telecommunications, tech, workforce, infrastructure (water/sewer, roads/bridges) ports/dredging, and energy/electrical grid. Discussion is aimed at being creative to identify solutions and tangible ideas for funding and implementation.
 - Potential to have two alternative tracks that focus on 1) on-the-ground project planning and 2) policy and programming solutions.
3. **Build the toolset:**
 - Final session of a resource and networking fair to share and learn about available resources for the region from agencies, organizations, and programs, as well as to build relationships and connections to facilitate project development.

WCMAC Meeting Plan

Nov. 13, 2019

December 11, 2019

Topic	Presenter
• Final plan for economic workshop	▪ Rod/Emily
• Potash terminal in Grays Harbor (if available)	▪ BHP
• Update on hydrogen facility	▪ Randy Lewis/Vladimir Shepsis
• Burrowing Shrimp Update	▪ Ecology, Sea Grant
• Expanded orca habitat on WA coast	▪ NOAA
• Elect Vice Chair	▪ WCMAC

March 25, 2020

Topic	Presenter
• Changing Ocean Conditions	▪ NOAA NW Fisheries Science Center ▪ NANOOS: new data/apps that improve understanding of ocean conditions and safety (Ideally Jan or Rachel)
• Harmful Algal Blooms	▪ Anthony O'Dell UW? GHC (45 min presentation)
• Federal Consistency 101 <ul style="list-style-type: none"> ○ BOEM ○ Federal Oil and Gas Leasing Update ○ CZMP and State role in federal waters <ul style="list-style-type: none"> ✓ What tools do we have to address new projects? ✓ What are the roles of WCMAC, State Agencies, Stakeholders? ○ ORMA: applications and limitations 	▪ Ecology and NOAA's Office for Coastal Management
• CZM 2021-2025 Program Enhancement Strategy	▪ Ecology

Potential Special Meetings/Workshops in Spring/Summer of 2019

Topic	Presenter
1. Economic Workshop	
2. Coastal Hazards Workshop	
• Flooding and Erosion	▪ Ecology
• Landslides and Tsunamis	▪ DNR
• Sea Level Rise	▪ Sea Grant/OSU (Peter Ruggiero)
• Climate Change Impacts	▪ Climate Impacts Group (Heidi Roop)
•	▪

June 10, 2020

Topic	Presenter
• Discuss Proposed Recommendations from Economic Workshop	▪
• Discuss Proposed Recommendations from Coastal Hazards Workshop	▪

WCMAC Workplan

12/1/19

	Topic	Purpose	Source*	WCMAC Focus	Timeframe	Tasks	Information Needs	Working Group (Y/N)	Notes/Status Updates
A.	Coastal Resilience	Prioritize needs and actions to carry out the recommendations in the Ruckelshaus "Washington State Coast Resilience Assessment Final Report (2017)"	C	Information Sharing; Informal Advice; Formal Recommendations	Ongoing	1. Guide Ecology and Washington Sea Grant in completing the "Washington Coast Resilience Action Demonstration (RAD) Project" 2. Guide and participate in a science-policy workshop on coastal hazards 3. Help shape recommendations to the Governor, the Legislature, and state and local agencies to further support long-term pre-disaster risk reduction for Washington's Pacific coast-wide resilience initiative.		Yes	* 18 month NOAA grant was awarded to Ecology's Coastal Program to partner with WCMAC on the "Washington Coast Resilience Action Demonstration (RAD) Project" * Coastal Hazards workshop is being planned for May 2019
B.	Ecosystem Indicators	To provide feedback to the state on refining the list of ecosystem indicators.	C	Informal Advice	6/19-7/19	1. Compile existing lists of indicators, summary of methods, and proposed process for refining indicators (<i>WCMAC staff</i>) 2. WCMAC briefing and discussion (<i>WCMAC Meeting</i>) 3. Staff and other experts participate in OCNMS Ecological Indicator selection process	1. List of current potential indicators 2. Summary of methods used to identify current list 3. Informational briefing on developing scientifically robust indicators 4. Presentation from OCNMS on Conditions Report and Ecological Indicators	No, but included in work of Science & Research Agenda Work Group	*Need to consult with NOAA (NWFSC)
C.	Economic Resiliency Workshop	To convene a 1-day workshop on economic resiliency in coastal communities	W	Information Sharing	3/19-6/20	1. Develop scope of work/approach for a 1-day workshop in May of 2020 to address economic resiliency in coastal communities	TBD	Yes	*Rod has agreed to chair this effort. *The recommendations from the workshop will be considered in the June WCMAC meeting for possible adoption in the Sept. meeting
D.	Science and Research Agenda	To provide feedback to the state on the development of a science and research agenda, including data gaps and WCMAC's priorities.	C	Informal Advice	6/19-7/19	1. Compile Data Gaps (<i>WCMAC Staff</i>) 2. WCMAC Discussion on Initial List of Gaps and Priorities (<i>WCMAC Meeting</i>) 3. Coordinate with ecosystem indicators work	1. List of data gaps (initial list from MSP) 2. Summary of existing, current science needs documents for WA Coast (e.g. OCNMS, PFMC)	Yes	
E.	Monitor Implementation of MSP	To keep WCMAC informed of MSP implementation efforts To consider practical applications of the MSP	C	Information Sharing (See also A. above)	Ongoing	1. Summarize status of MSP implementation tasks (<i>WCMAC staff</i>) 2. Federal Consistency: Review Washington's authority in reviewing federal activities	1. Informational Briefing on Status of MSP Implementation	No	*Include briefing on how the plan gets used, particularly regarding new applications *Review plans that are inconsistent with MSP
F.	Annual Work Plan	To develop an annual workplan to guide planning for WCMAC meetings and activities.	B	Operations/Admin	12/19	1. Compile topics and outcomes (<i>Steering Committee</i>) 2. Develop draft annual workplan (<i>Steering Committee</i>) 3. Discuss and adopt work plan (<i>WCMAC Meeting</i>)	1. Input from WCMAC members and Gov's office on topics and priorities	No	* Initial draft work plan discussed at September meeting with final work plan addressed at Dec. meeting.
G.	WCMAC Meeting Agendas and Operations	To fulfill Steering Committee responsibilities as listed in the by-laws	B	Operations/Admin	Ongoing	1. Set WCMAC Agendas for each meeting 2. Conduct officer elections every 2 years		No	

Source: C= Governor's Charge; B=Bylaws; W=WCMAC Generated

Other Topics of Interest/Future Consideration	Notes/Comments
1 Coastal Erosion	Coastal Resiliency Work Group is planning a Science-policy workshop on Coastal Erosion
2 Sea-level rise	An education presentation by Sea Grant and/or a presentation from Peter Ruggiero on Grays Harbor Coastal Futures Project. Heidi Roop from UW Climate Impacts Group could present their report with the most up to date sea level rise projections for various locations in WA
3 Trends in changing ocean conditions	
4 Shipping overview	
5 Oil terminals	
6 Potash Terminal in Grays Harbor	
7 Commercial Net Pen Aquaculture	
8 Offshore Aquaculture	
9 Shellfish Aquaculture Management issues (e.g. invasive species, burrowing shrimp, etc.)	Will provide ongoing updates to WCMAC as appropriate
10 Invasive Species and Pest Species Management (incl. Green Crab)	Benthic impacts of burrowing shrimp (Kathleen Sayce)
11 Changing Fishing Fleets and Alternative Fishing Methods	
12 Coastal Energy	Other coastal groups are considering hosting a workshop
13 Economic Development: How <u>do</u> coastal communities adapt to changing economy?	
14 Building Local Capacity	
15 Watershed Protection	
16 Ecosystem Services Valuation	
17 Federal Consistency	Briefing and discussion of potential recommendations. Include discussion of BOEM process for applications in federal waters and coastal oil and gas leasing.
18 Harmful Algal Blooms (HAB)	Anthony O'Dell, Grays Harbor College
19 Ecology's Spill Program	
20 Ecological Indicators in Estuaries	Technical Committee will discuss
21 Regular Financial Updates on WCMAC's budget status	Will be periodically added to WCMAC's agenda
22 Ocean Conditions	Dr. Brian Beckman of NOAA
23 Sea Floor Mapping Update	
24 Recreation and tourism issues	
25 Ocean Acidification Sentinel Site	
26 Nanoos Data	Nanoos presentation on new data products/apps for ocean users that help improve understanding of ocean conditions and safety (ideally Jan or Rachel)
27 Renewable Energy and Economics	Presentation by Brian Pologye of UW/PMECC and also a member of the science advisory panel. Could also speak to research happening in OR
28	
29	

Topics Addressed in Previous Meetings

Notes/Comments

Vessel Traffic/Navigational Safety/Transport of hazardous substances	Briefing on Grays Harbor Vessel Traffic Risk Assessment occurred at 3/28/18 meeting.
Ocean Acidification	Presentation by MRAC members at 6/13/18 meeting
Tsunami/Disaster Preparedness	Presentation at 6/13/18 Meeting
Juvenile salmon survey results and ocean conditions	Webinar in 9/18
Briefing from WDFW on recreation and commercial fishing allocation	Presentation at 12/12/18 meeting
Salmon Management	Workshop at 10/2/19 meeting

Priorities for 2020 are highlighted in green



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Proposed Critical Habitat Designation For Southern Resident Killer Whales Under the Endangered Species Act

WA Coastal Marine Advisory Council

December 11, 2019

Presentation Outline

Critical Habitat – General Overview

- What is critical habitat?
- What are the requirements for designating critical habitat?
- What is the effect of a critical habitat designation?

Southern Resident Killer Whale Proposed Rule

- Why are we proposing critical habitat now?
- How did we develop the proposed rule?
- Where is critical habitat being proposed?
- What kind of information is being solicited?



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What is critical habitat?

Defined in section 3 of the ESA:

- Specific areas within the geographical area **occupied by the species**, at the time it is listed, on which are found those **physical or biological features (I)** essential to the conservation of the species and **(II)** which may require special management considerations or protection; and
- Specific areas **outside the geographical area occupied** by the species at the time it is listed, upon a determination by the Secretary that **such areas are essential for the conservation** of the species.



What are the requirements for designating critical habitat?

- Designations **must** be based on
 - best scientific data available, and
 - consideration of impacts - economic, national security, and other relevant impacts
- Secretary *may* exclude particular areas **if the benefits of exclusion outweigh the benefits of designation** and **if exclusion will not result in extinction** of the species
- **Do not** designate:
 - Entire range (unless the Secretary makes a determination)
 - Areas covered by an approved Integrated Natural Resource Management Plan (INRMP) if there is a conservation benefit
 - Areas within foreign countries or outside U.S. jurisdiction



What is the effect of a critical habitat designation?

- Regulatory effect: under ESA section 7, Federal agencies must ensure that actions they authorize, fund, or carry out **are not likely to destroy or adversely modify designated critical habitat**
 - This is in addition to the section 7 requirement that Federal agency actions are not likely to **jeopardize the continued existence of listed species**
- Potential non-regulatory benefits: e.g., help managers identify important habitat, stimulate voluntary conservation and research, education/ outreach
- **Critical habitat DOES NOT:**
 - establish any type of sanctuary, preserve, or closed area
 - affect private activities (e.g., recreational boating) or use of private lands

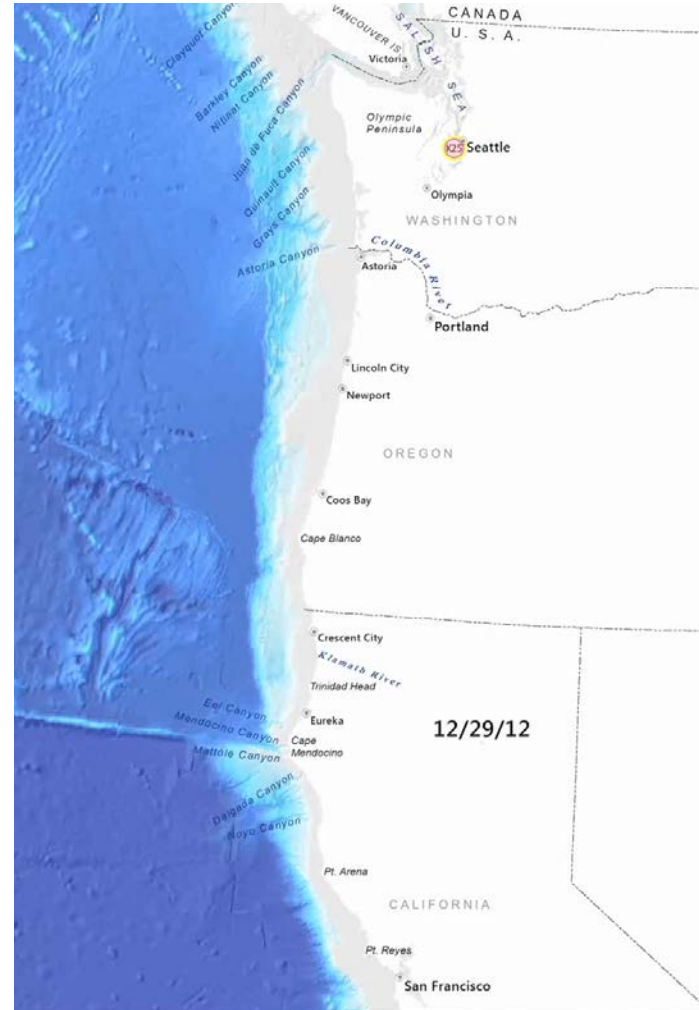


Southern Resident Killer Whales



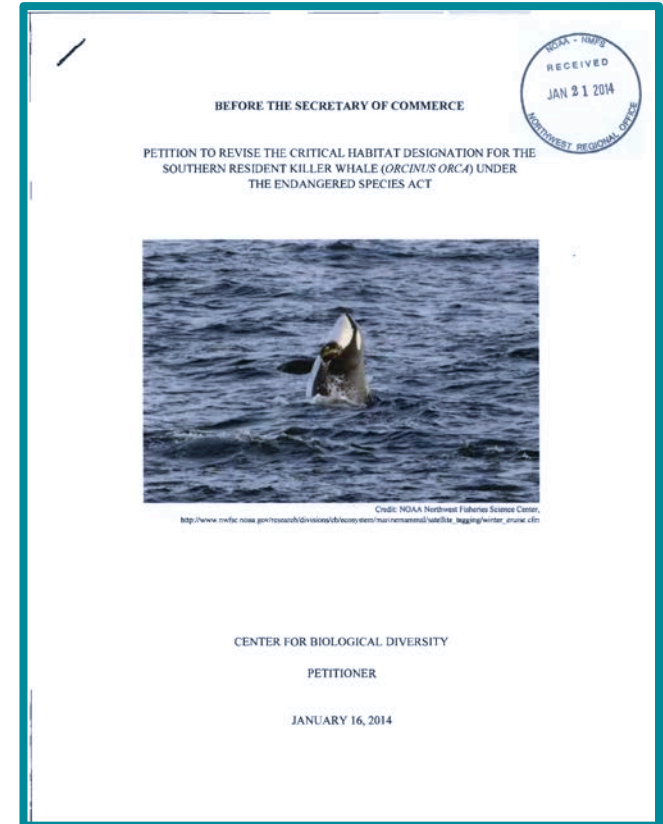
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Why are we proposing to revise critical habitat now?



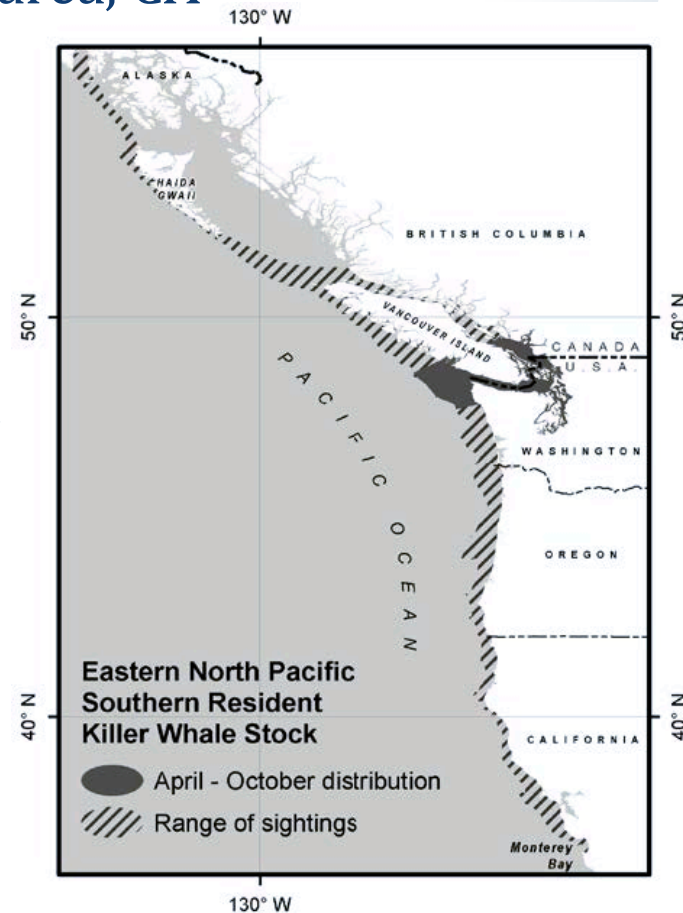
Why are we proposing to revise critical habitat now?

- Petition to revise critical habitat and consider coastal waters from Cape Flattery, WA to Point Reyes, CA
- NMFS 90-day and 12-month findings and proposed rule



How did we develop the proposed rule?

1. Determine geographical area occupied
 - Chatham Strait, AK to Monterey Bay area, CA
2. Identify physical or biological habitat features essential to conservation that may require special management
 - Water quality to support growth and development;
 - Prey species of sufficient quantity, quality, and availability to support individual growth, reproduction and development, as well as overall population growth; and
 - Passage conditions to allow for migration, resting, and foraging.



How did we develop the proposed rule?

Consideration of sound as a potential 4th essential feature

- Petitioned to include sound as a fourth essential feature in current and any new proposed critical habitat designation
- Separate consideration of effects of anthropogenic sound on individual whales and habitat-related impacts
 - NMFS will continue to evaluate and manage direct and indirect effects of sound on individual animals and population relative to jeopardy standard in ESA section 7 analyses and through MMPA incidental take authorizations
- Chronic noise may cause adverse habitat-related effects
 - Currently assessed qualitatively by evaluating impacts to the prey and passage essential features
 - Would expect to do the same for coastal critical habitat
 - Not necessary to identify as a separate essential feature



How did we develop the proposed rule?

3. Delineate specific areas within the geographical area occupied by the species on which are found the physical or biological features



How did we develop the proposed rule?

4. Determine whether any unoccupied areas are essential for conservation
 - No unoccupied areas

5. Identify whether any area may be precluded from designation because the area is subject to an INRMP that we have determined provides a benefit to the species.
 - No overlap between critical habitat and military areas covered by INRMPs; no areas precluded



How did we develop the proposed rule?

6. ESA section 4(b)(2) analysis: consider the economic, national security, or any other impacts of designating critical habitat and determine whether to exercise our discretion to exclude any particular areas.



How did we develop the proposed rule?

ESA section 4(b)(2) analysis: **Economic impacts**

- Assessed “incremental impacts” of designation
- Considered administrative costs and costs associated with conservation efforts or project modifications
- Evaluated 12 categories of activities funded, authorized, or carried out by Federal agencies
 - Activities occur within or upstream of critical habitat areas, and could potentially affect essential features within critical habitat
 - Examples: Federally-managed fisheries; Navy testing and training activities



How did we develop the proposed rule?

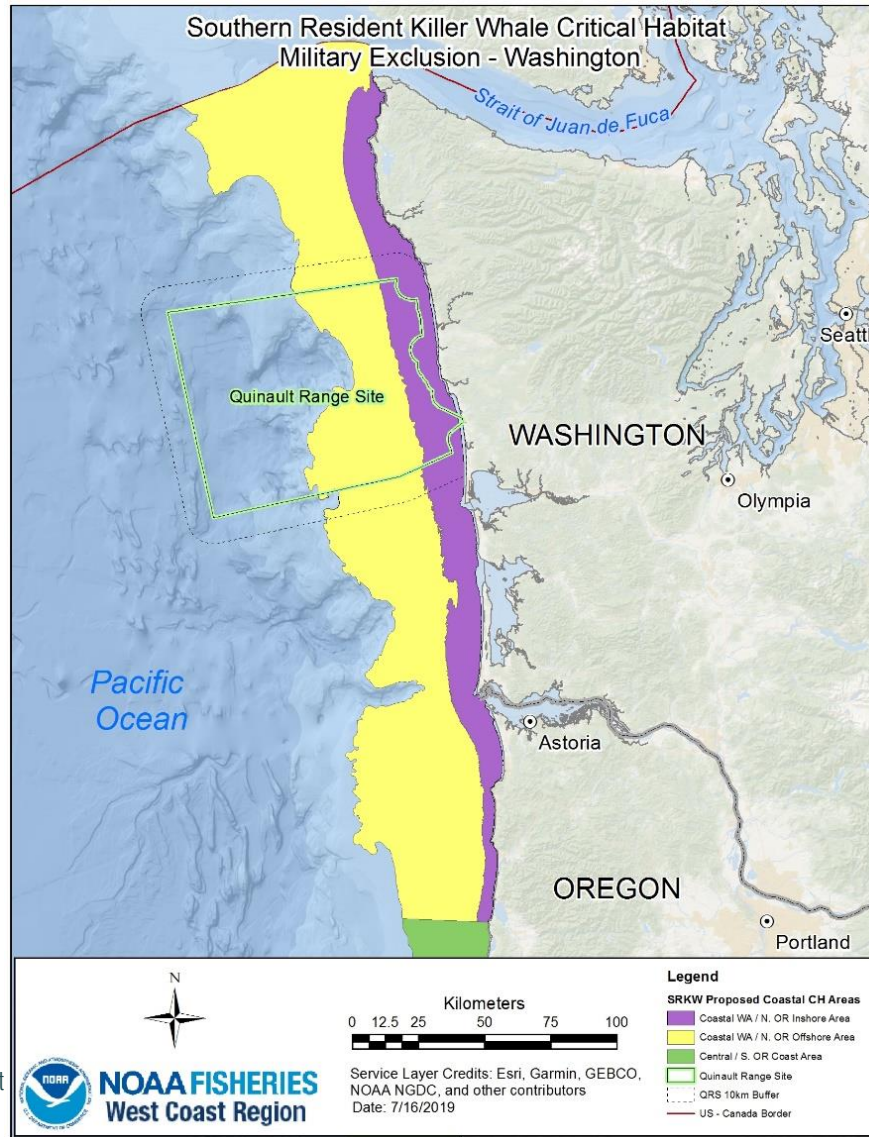
ESA section 4(b)(2) analysis: **Economic impacts**

- No project modifications anticipated; admin costs only
 - NMFS regularly consults to consider potential for jeopardy to the whales, their listed prey, and other listed species with overlapping ranges, and consider potential for adverse modification to critical habitat of other listed species
 - Expect that baseline conservation recommendations would involve measures that would avoid adverse modification of Southern Resident killer whales' critical habitat
- Total annualized impacts \$68,000
- Benefits of excluding any particular area due to economic cost do not outweigh benefits of designation
- No proposed exclusions based on economic impact



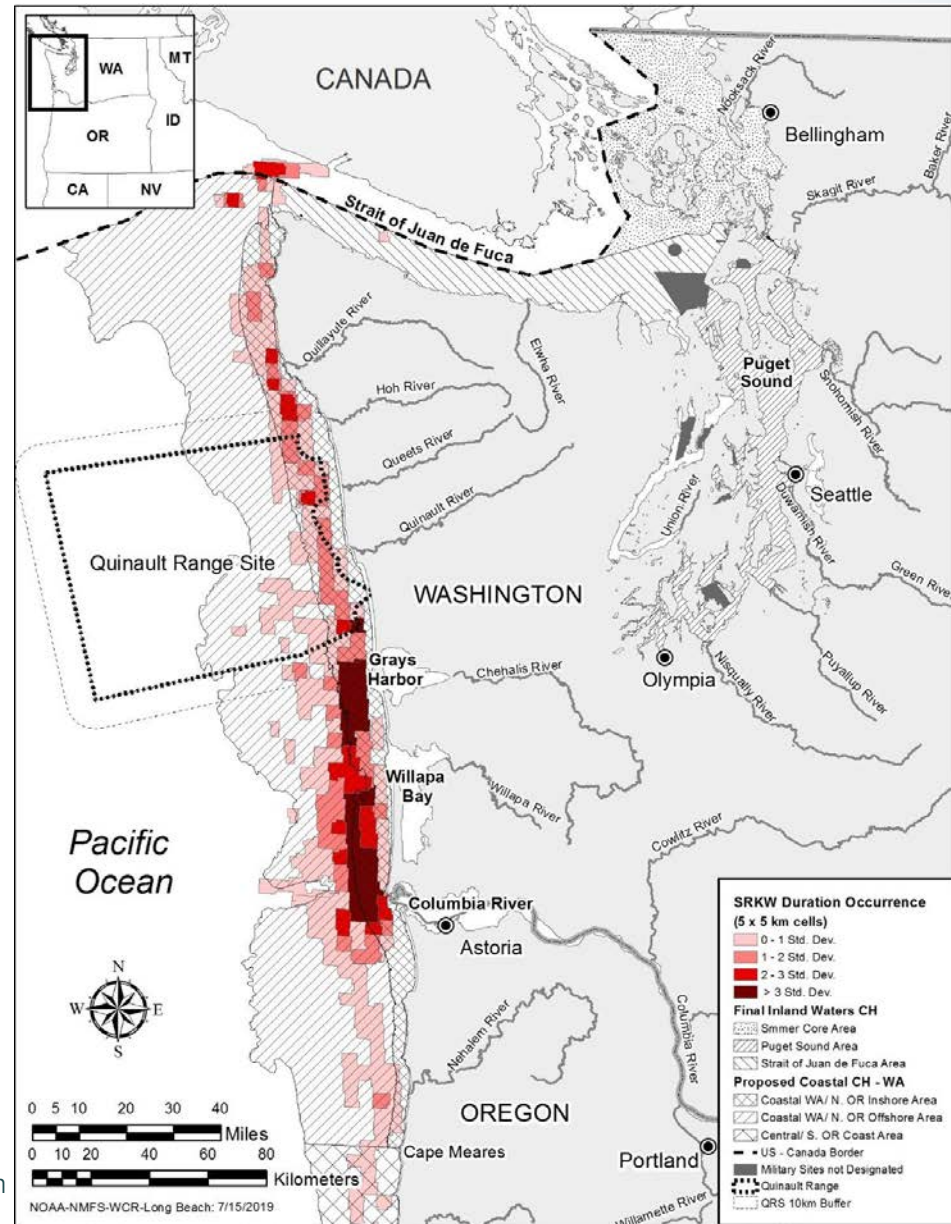
How did we develop the proposed rule?

- ESA section 4(b)(2) analysis: **National security impacts**



How did we develop the proposed rule?

- ESA section 4(b)(2) analysis:
National security impacts
 - NMFS concluded the benefit to national security of excluding the area outweighs the benefit of designation and exclusion would not result in extinction of the species
 - Propose to exclude 1,688 mi²



How did we develop the proposed rule?

- **ESA Section 4(b)(2) analysis: Impacts to tribal sovereignty and self-governance**
 - No overlap with “Indian lands” but some tribes have usual and accustomed fishing areas that overlap critical habitat areas, or tribes might otherwise be affected
 - Solicited info from 17 tribes; based on responses, we expect minimal impacts to tribes, but NMFS will continue to coordinate and consult with potentially affected tribes



Where is critical habitat being proposed?

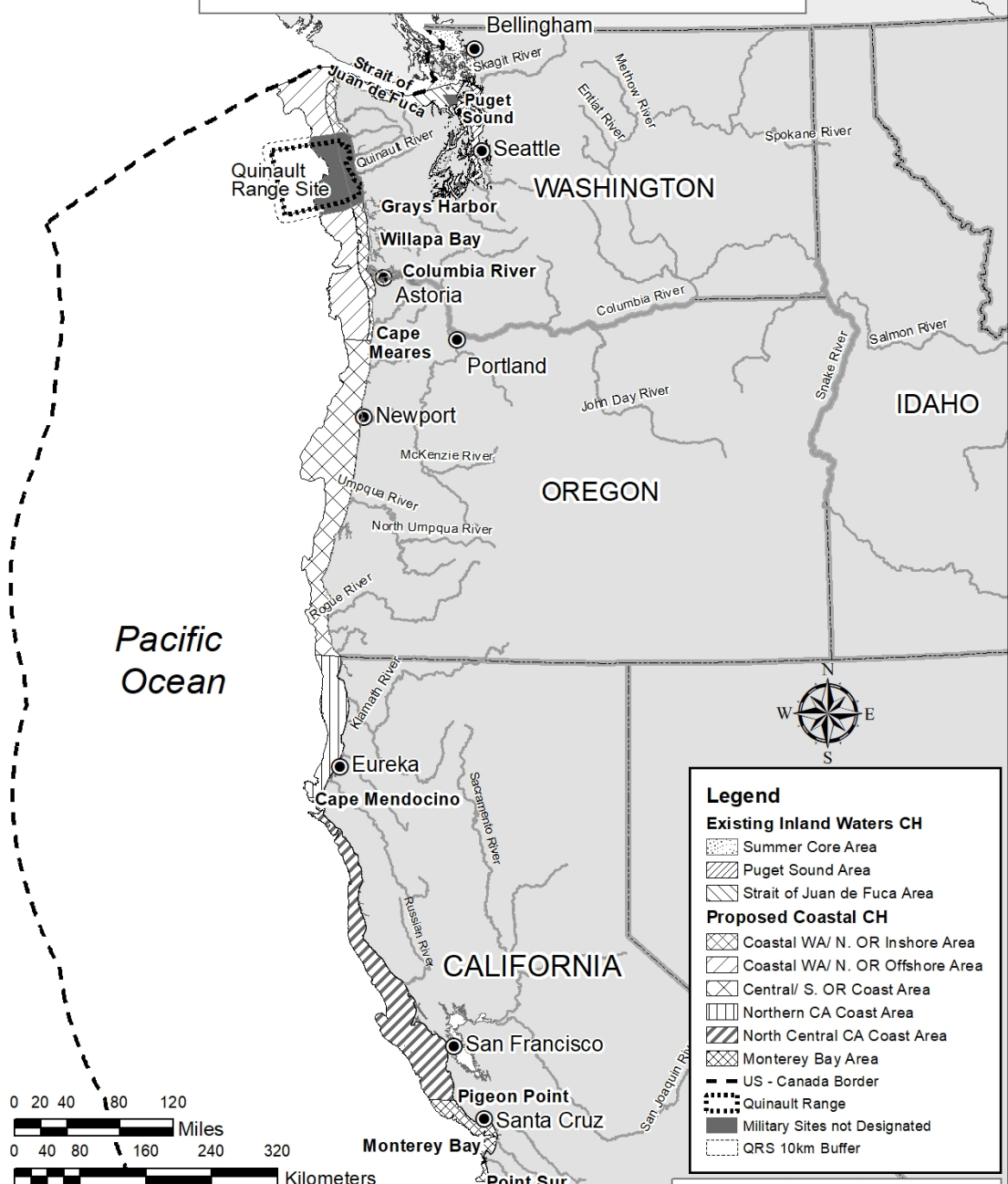
Area	Boundaries
1 - Coastal Washington/Northern Oregon Inshore Area	U.S. ocean waters west of line connecting Cape Flattery, Tatoosh Island, and Bonilla Point, from U.S. border south to Cape Meares, OR between 6.1-m and 50-m isobaths
2 - Coastal Washington/Northern Oregon Offshore Area	U.S. ocean waters west of line connecting Cape Flattery, Tatoosh Island, and Bonilla Point, from U.S. border south to Cape Meares, OR between 50-m and 200-m isobaths
3 - Central/Southern Oregon Coast Area	Cape Meares, OR to OR/CA border between 6.1-m and 200-m isobaths
4 - Northern California Coast Area	OR/CA border to Cape Mendocino, CA between 6.1-m and 200-m isobaths
5 - North Central California Coast Area	Cape Mendocino, CA to Pigeon Point, CA between 6.1-m and 200-m isobaths
6 - Monterey Bay Area	Pigeon Point, CA to Point Sur, CA between 6.1-m and 200-m isobaths

- Excludes Navy's Quinault Range Site and 10-km buffer
- Does not include waters shallower than 20 ft deep



Existing and Proposed Critical Habitat for Southern Resident Killer Whales - Overview

CANADA



Pacific Ocean

WASHINGTON

OREGON

IDAHO

CALIFORNIA

Legend

Existing Inland Waters CH

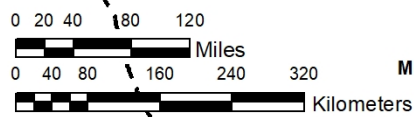
- Summer Core Area
- Puget Sound Area
- Strait of Juan de Fuca Area

Proposed Coastal CH

- Coastal WA/ N. OR Inshore Area
- Coastal WA/ N. OR Offshore Area
- Central/ S. OR Coast Area
- Northern CA Coast Area
- North Central CA Coast Area
- Monterey Bay Area

Other Features

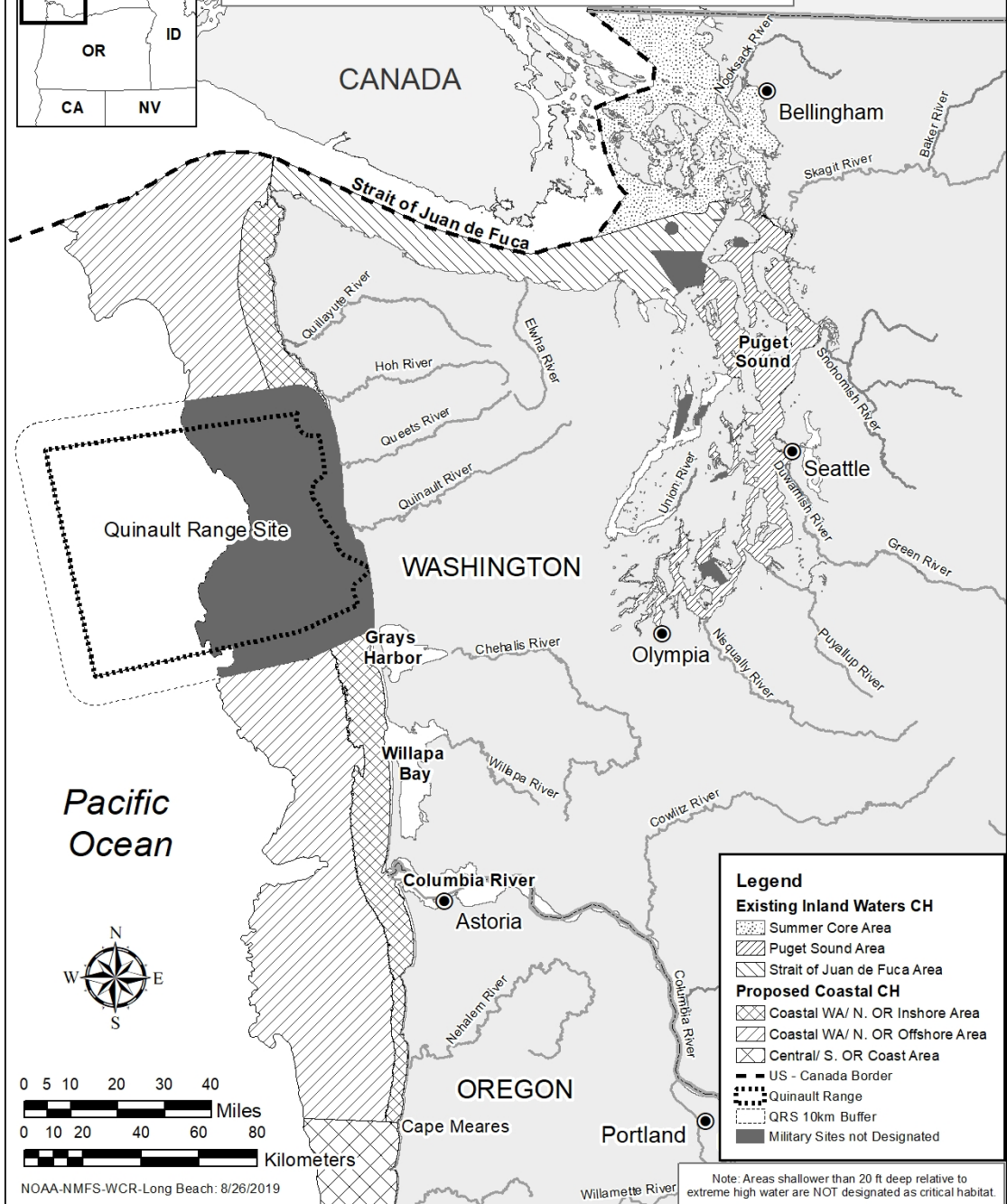
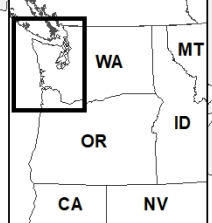
- US - Canada Border
- Quinalt Range
- Military Sites not Designated
- QRS 10km Buffer



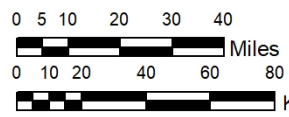
Note: Areas shallower than 20 ft deep relative to extreme high water are NOT designated as critical habitat.



Existing and Proposed Critical Habitat for Southern Resident Killer Whales - Detail



Pacific Ocean



NOAA-NMFS-WCR-Long Beach: 8/26/2019

Legend

Existing Inland Waters CH

- Summer Core Area
- Puget Sound Area
- Strait of Juan de Fuca Area

Proposed Coastal CH

- Coastal WA/ N. OR Inshore Area
- Coastal WA/ N. OR Offshore Area
- Central/ S. OR Coast Area

Other Features

- US - Canada Border
- Quinault Range
- QRS 10km Buffer
- Military Sites not Designated

Note: Areas shallower than 20 ft deep relative to extreme high water are NOT designated as critical habitat.



What kind of information is being solicited?

- Distribution and habitat use of SRKW in coastal waters
- Physical or biological features
- Boundaries of the areas
- Benefits or impacts of designating
- Economic data needing to be updated
- Additional areas to consider for exclusion



How can comments be submitted?

- Mail. Submit written comments to
Seattle Branch Chief
PRD/WCR/NMFS
7600 Sand Point Way NE, Building 1
Seattle, WA 98115
Attn: SRKW Critical Habitat Proposed Rule
- Electronic: Submit electronic comments via the Federal e-Rulemaking Portal at www.regulations.gov, search for docket# NOAA-NMFS-2014-0041

Comments must be received by
December 18, 2019



Questions?

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206-526-4297

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206-526-4745



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Proposed Grays Harbor Potash Export Facility Washington Coastal Marine Advisory Council

11 December 2019

Val Bond and Ken Smith, BHP

Brian Carrico, WSP



Disclaimer

Forward-looking statements

This presentation contains forward-looking statements, including statements regarding: trends in commodity prices and currency exchange rates; demand for commodities; plans, strategies and objectives of management; closure or divestment of certain operations or facilities (including associated costs); anticipated production or construction commencement dates; capital costs and scheduling; operating costs and shortages of materials and skilled employees; anticipated productive lives of projects, mines and facilities; provisions and contingent liabilities; tax and regulatory developments.

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Presentation of data

Unless specified otherwise, all data is presented on a continuing operations basis to exclude the contribution from assets that were demerged with South32 and references to Underlying EBITDA margin and Underlying EBIT margin exclude third party trading activities.

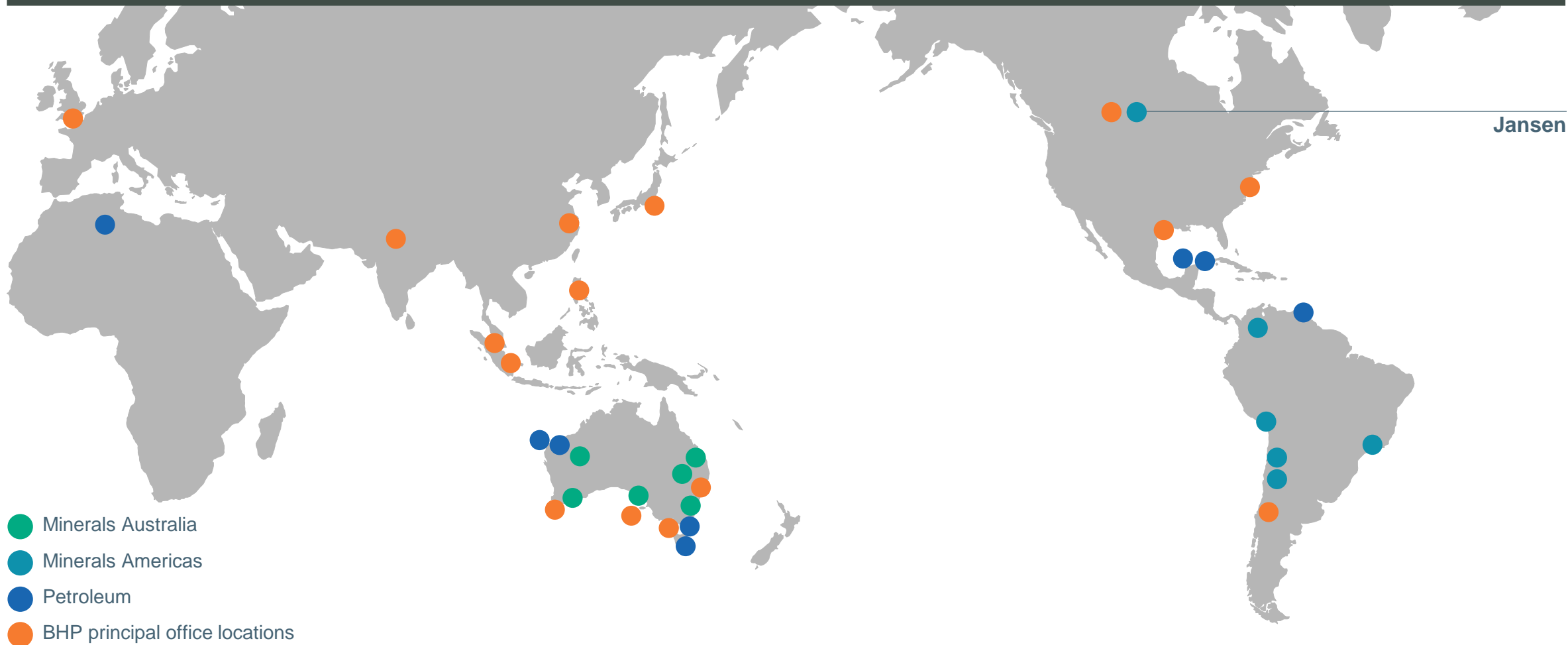
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Who is BHP?



What is potash?

Potash, or Potassium Chloride (KCl) is:

- Naturally occurring material from ancient sea beds
- Key ingredient in agricultural fertilizer
- Non-flammable
- Non-combustible
- Water soluble
- Mildly corrosive to metals
- Considered non-toxic to aquatic species



Source: BHP

Project purpose and need

BHP plans to develop a marine export facility to transport potash for fertilizer use in overseas emerging markets with increasing agricultural demands.

- Potash provides potassium which an essential nutrient for plant growth
- Higher crop yields will be required from increasingly constrained arable land as the global population grows and greater economic prosperity leads to changing patterns of food consumption.
- Reduces requirement for deforestation of lands for agricultural purposes
- The world's largest known reserves of potash are located in Canada.



Source: BHP

Project overview

The Port of Grays Harbor Project will serve as the outbound logistics facility for the Jansen Potash Project located approximately 90 miles east of Saskatoon, Saskatchewan in Canada.

The proposed project will receive potash by rail, unload the rail cars and either store the potash on site for later loading onto marine vessels or directly load onto vessels without storage. No processing will occur at the facility.

To perform this function, the project includes:

- Rail infrastructure and unloading facilities
- Material Handling
- Potash storage building
- Marine shiploading structures and berth
- Support facilities

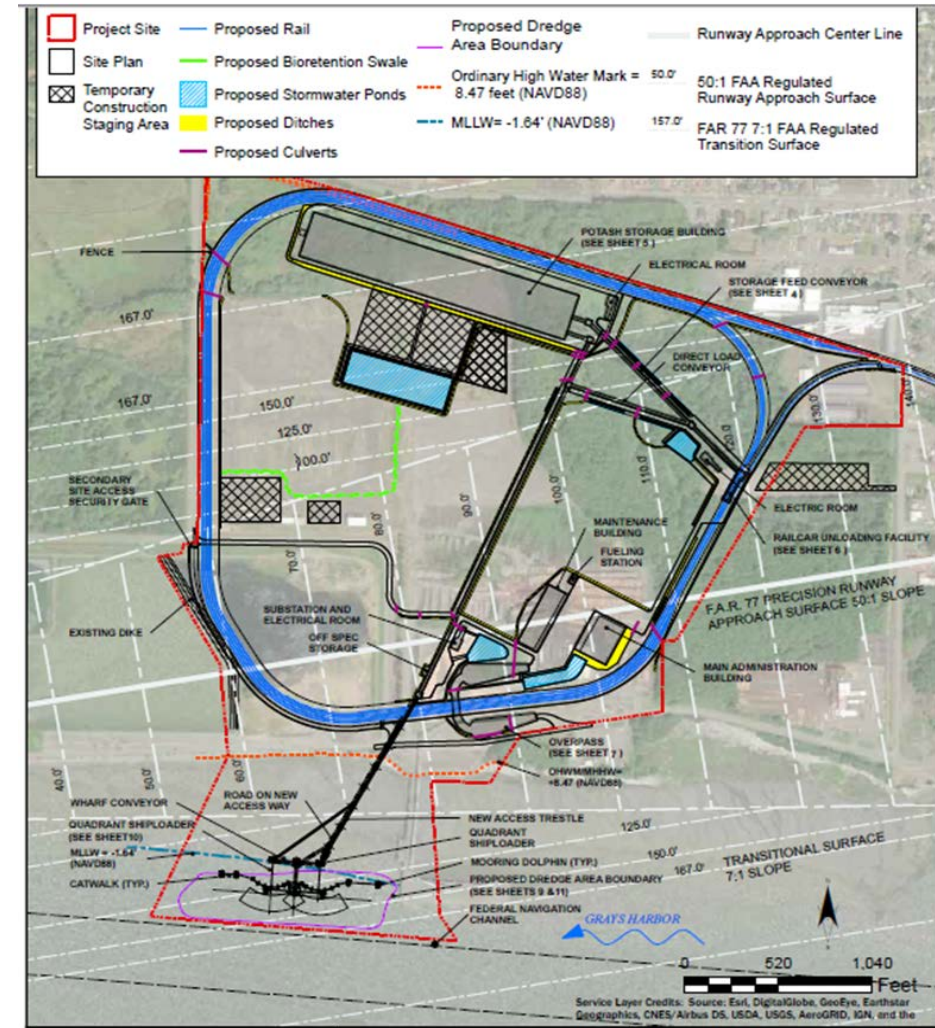
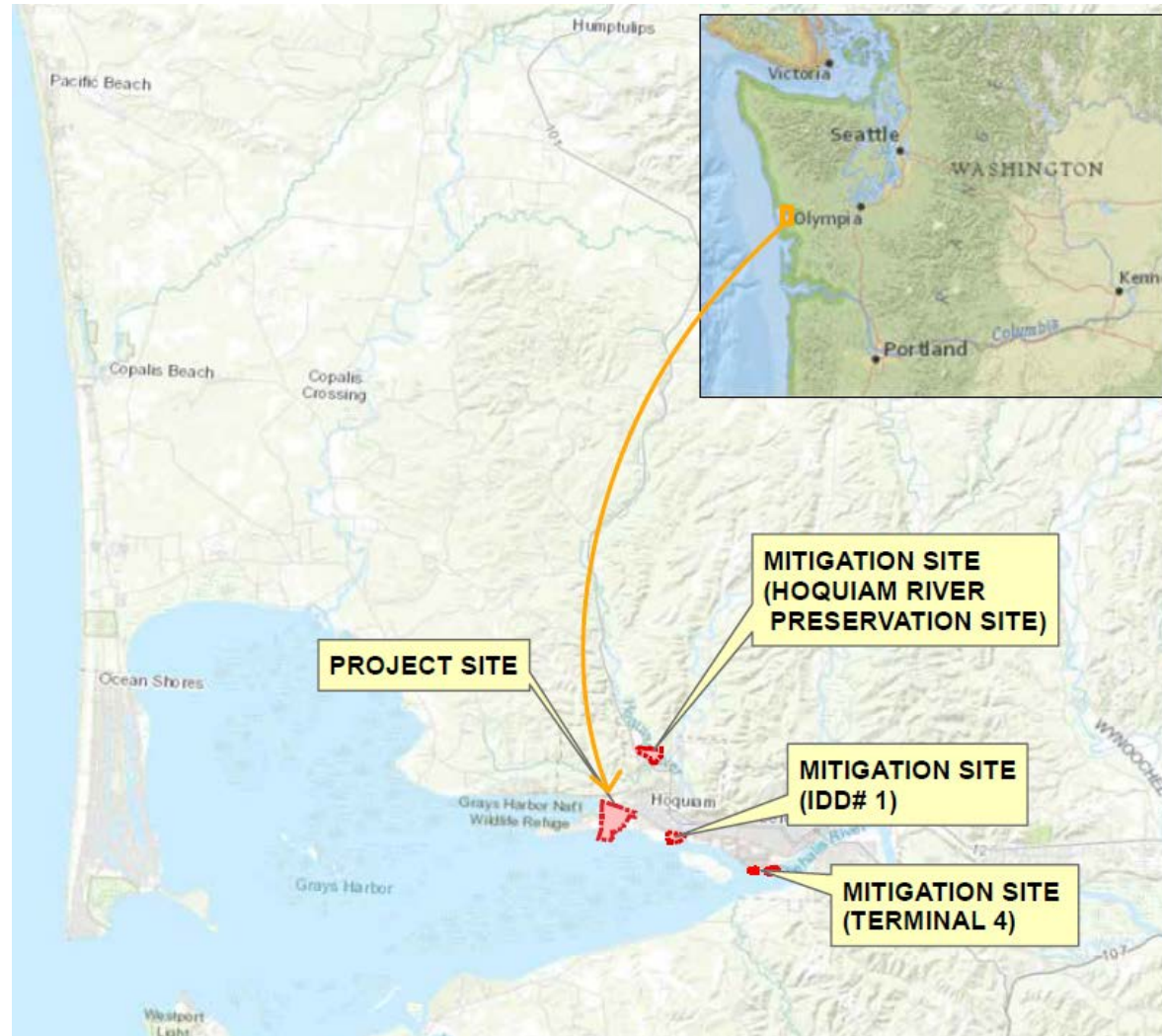


Exhibit BHP04 Sheet 3

Project location

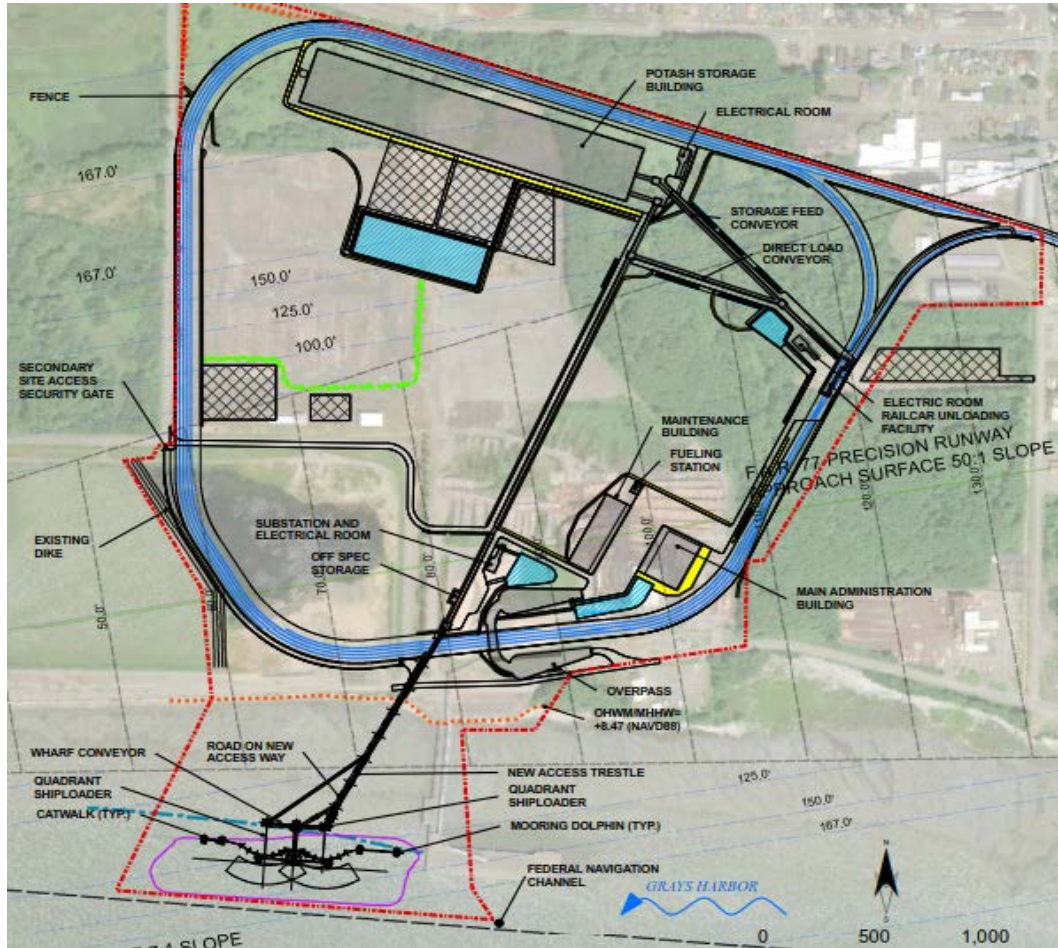


Source: BHP

Features to be constructed

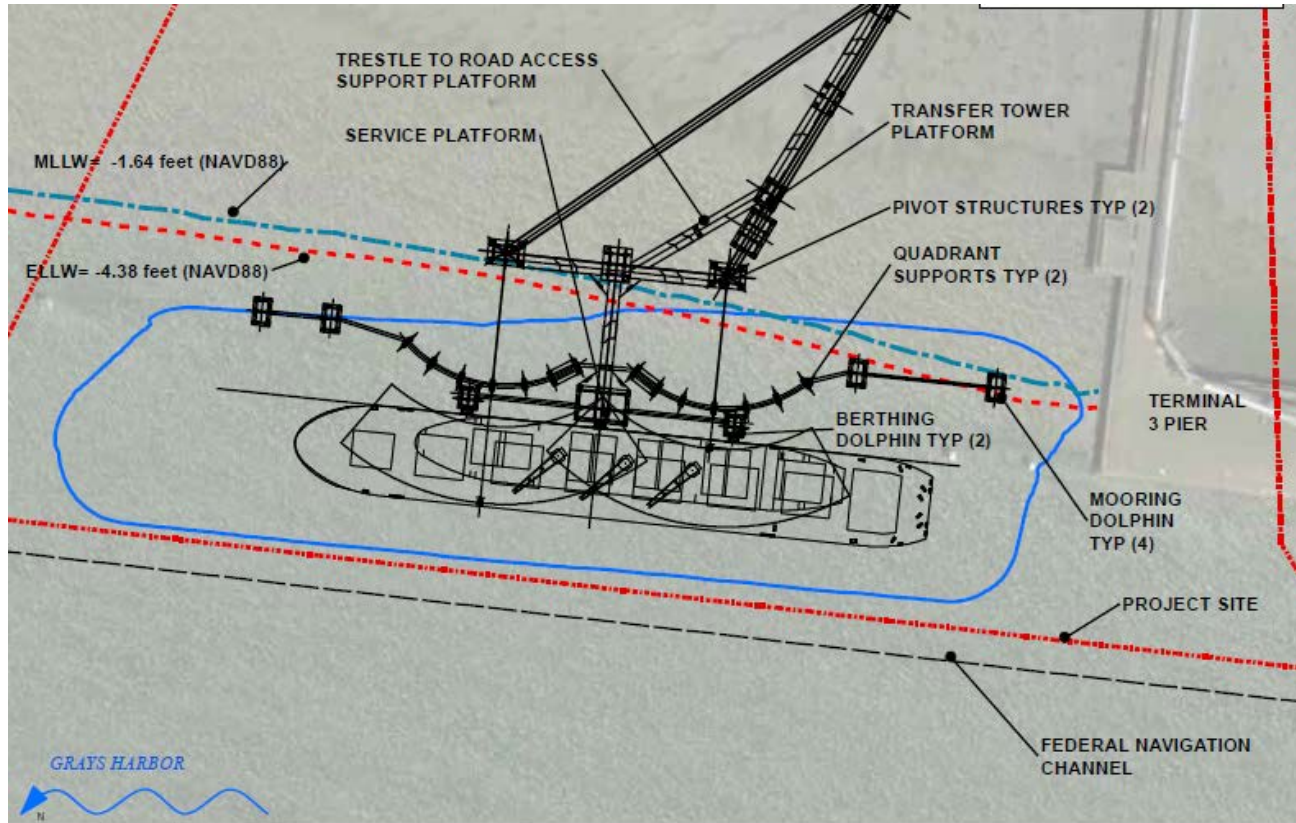
The proposed facility was designed to minimize impacts while constructing required components including:

- Rail Loop
- Railcar unloading facility
- Conveyor System
- Storage Building
- Administration Building
- Maintenance Building
- Substations
- Ship loading facilities



Source: BHP

Marine infrastructure / vessels

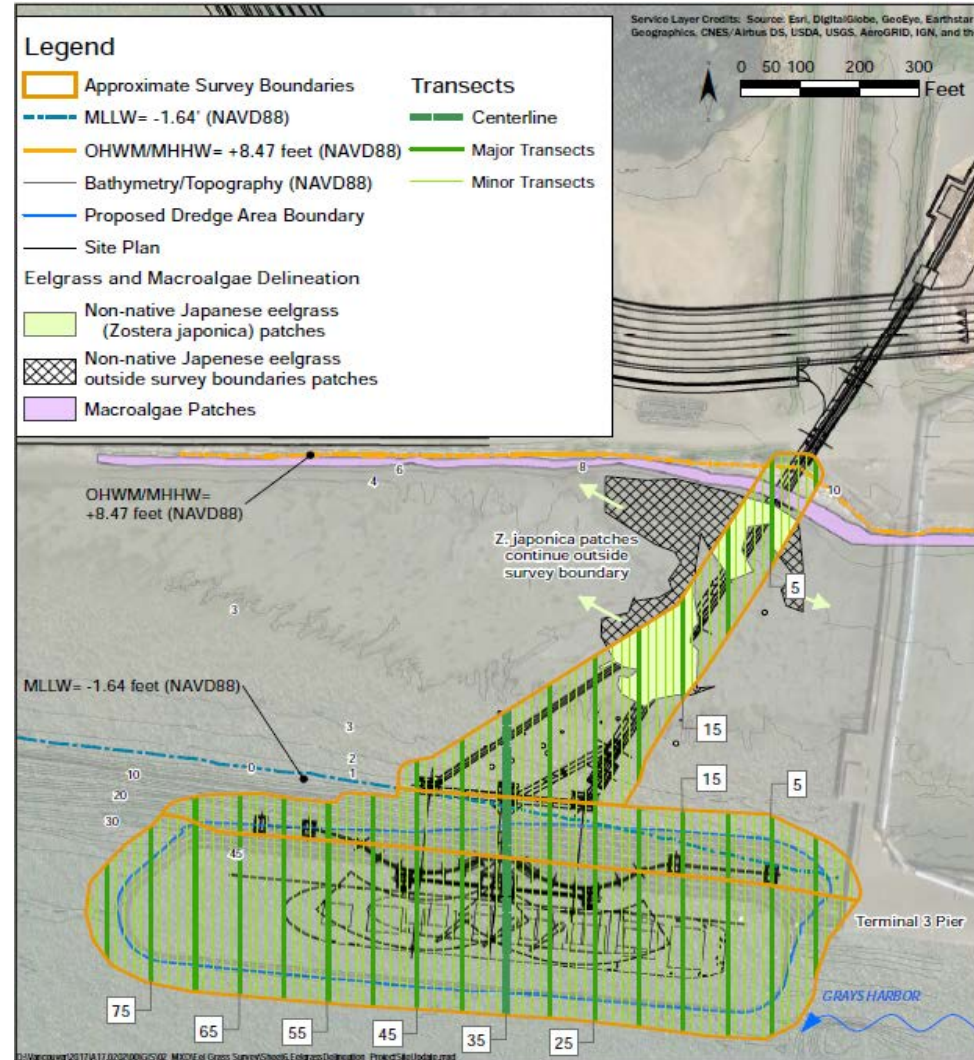


Source: BHP

- Open wharf structure to accommodate up to Kamsarmax vessels (20,000 to 82,000 DWT)
- Located primarily in deep water aligned with adjacent Terminal 3 pier line
- Outside navigation channel
- Dredging of approximately 110,000 cubic yards of material by clamshell methods to establish berth with in-water disposal
- Up to 220 vessels per year (at 8 MTPA)
- Vessels will follow normal harbor practices (pilotage, spill coverage requirements, etc.)

Aquatic conditions

No native eelgrass at project site;
 patchy non-native eelgrass and patchy
 macroalgae.



Source: BHP

Shiploading

The shiploader will be designed to reduce dust emissions and prevent spills:

- Can reach all corners of the ship hold
- Covered transfers
- Telescoping chute
- Control system, instrumented to confirm normal operation and provide warning of potential fault conditions.

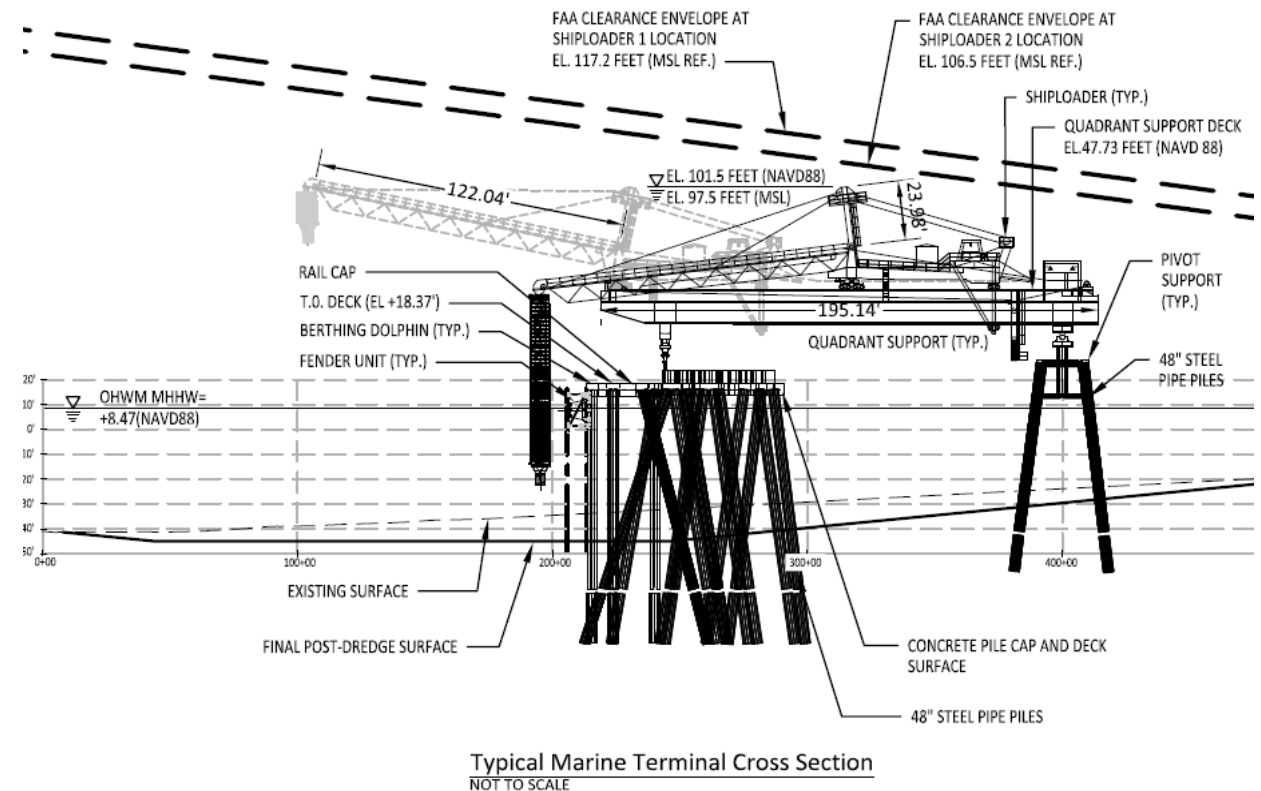
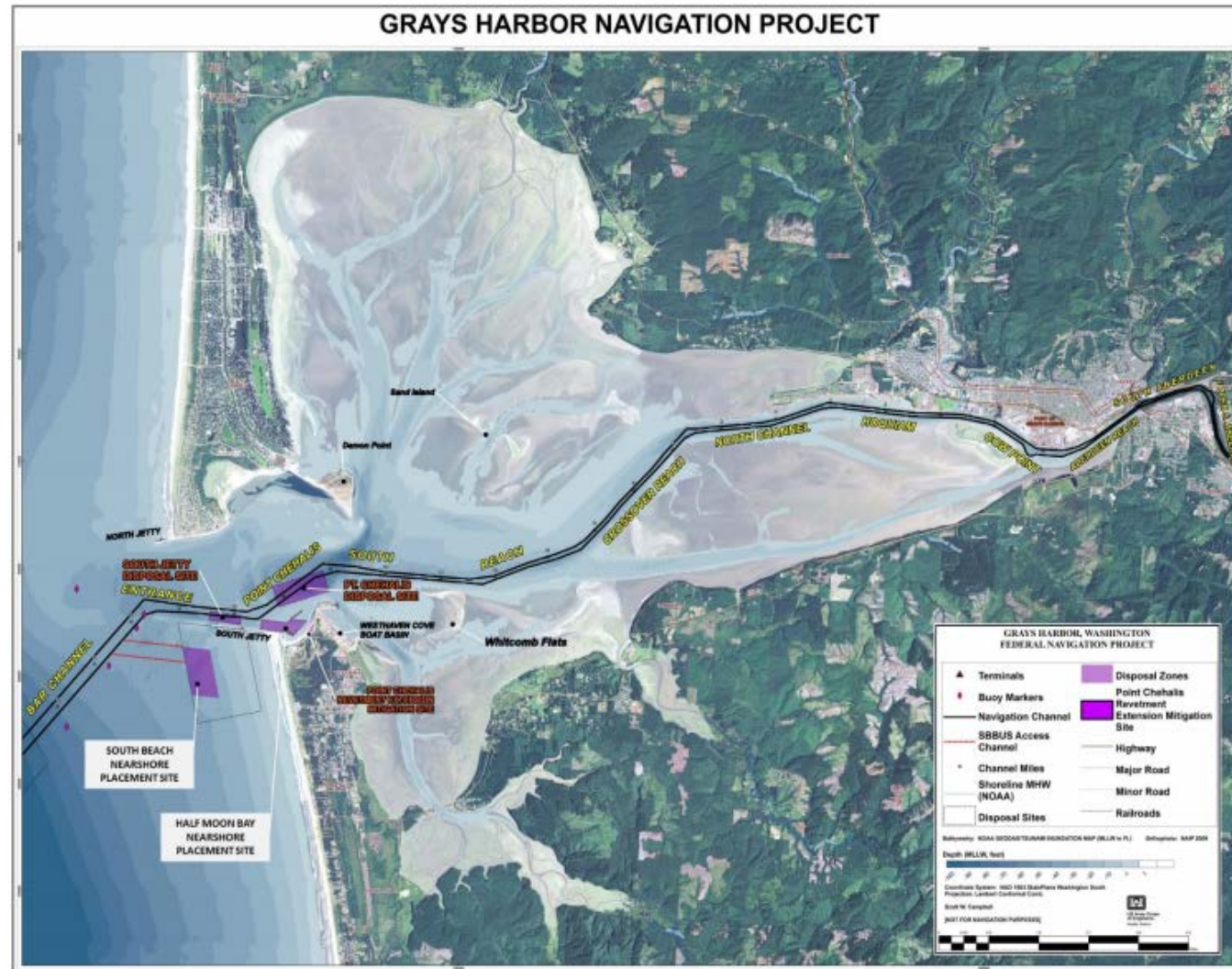


Exhibit BHP04 Sheet 10

Vessel operations



Compensatory mitigation – IDD#1

Summary

- Restores previous diked and filled mudflats and the mouth of the Hoquiam River
 - 10.75 acres of wetland will be created
 - 23.49 acres of existing low-quality emergent wetland to high-quality salt marsh will be rehabilitated
 - 5.17 acres of enhanced wetland buffer will be created
 - 0.94 acres of tidal channels will be created within the salt marsh.
- Representative of those historically found in the inner Grays Harbor, and replaces functions specifically identified as high priority for restoration.

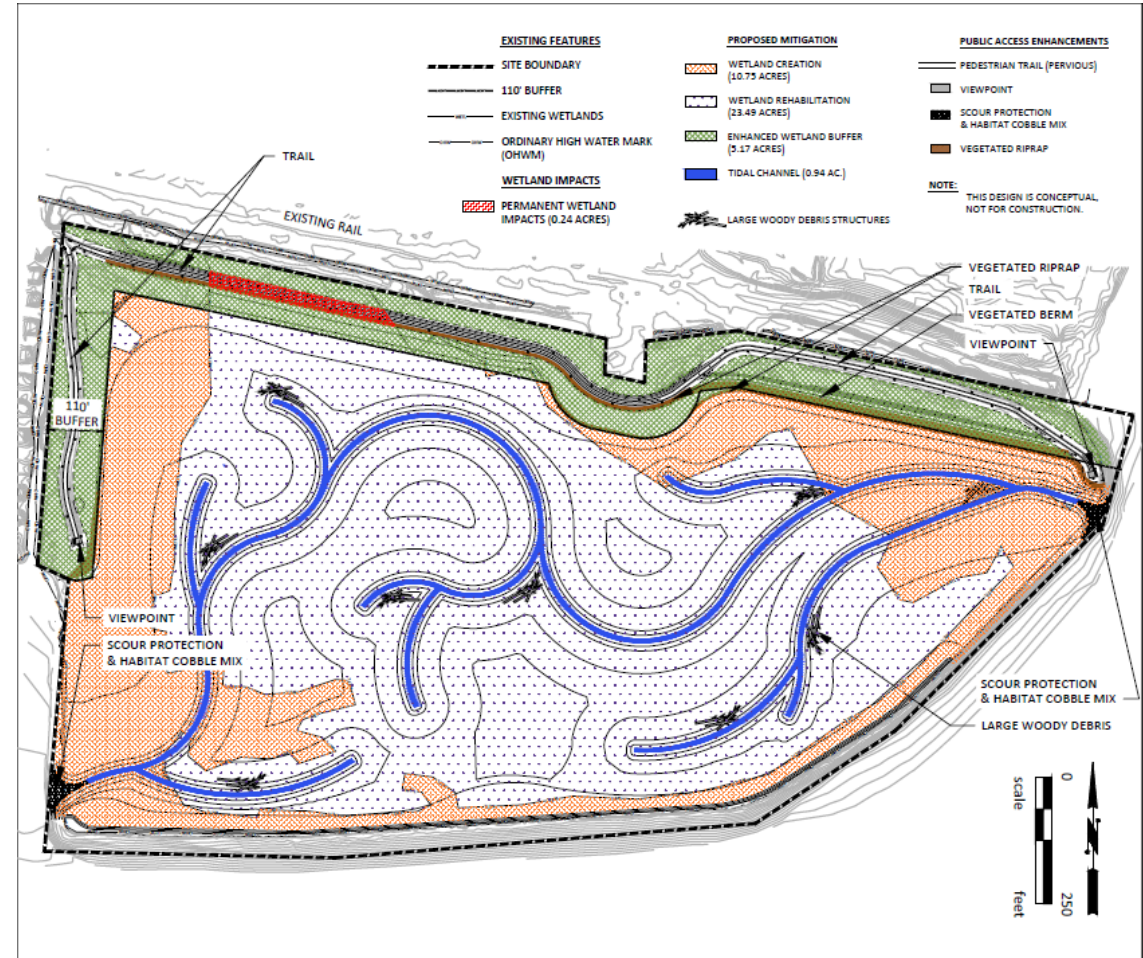


Exhibit BHP17 Sheet 11

Compensatory mitigation - Terminal 4 – Pile and overwater structure removal

Summary

- Approximately 1,368 creosote-treated piles and approximately 2,147 square feet of overwater structure will be removed from the area.
- Provides in-kind mitigation for benthic habitat and overwater coverage impacts associated with the new terminal and out-of-kind habitat mitigation in the form of water quality improvements.

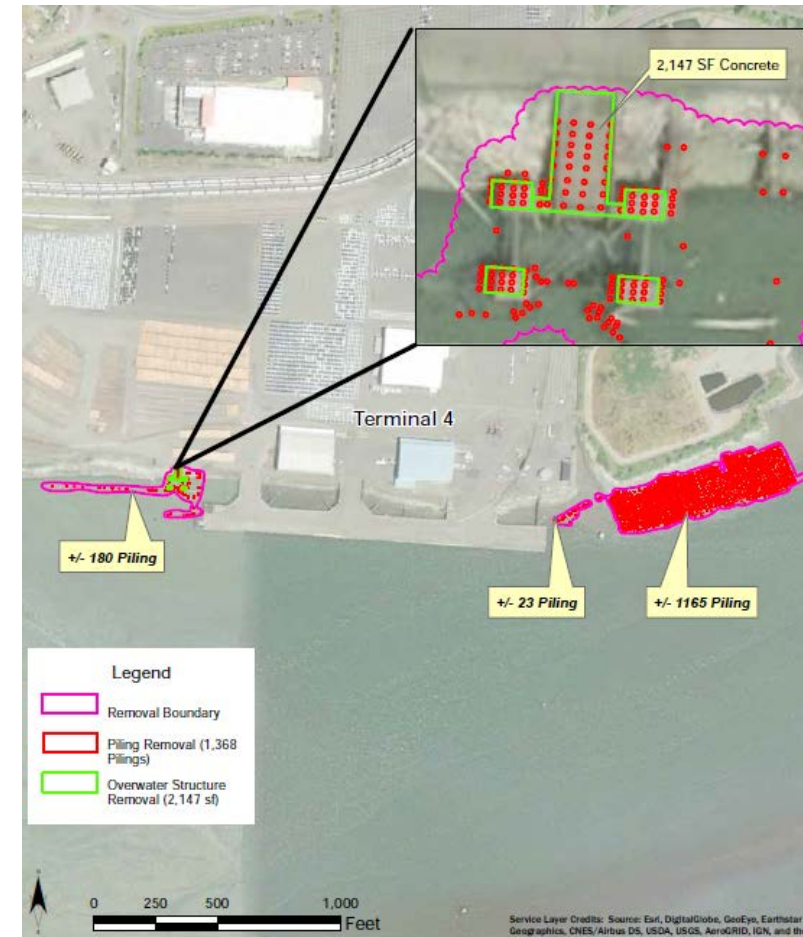
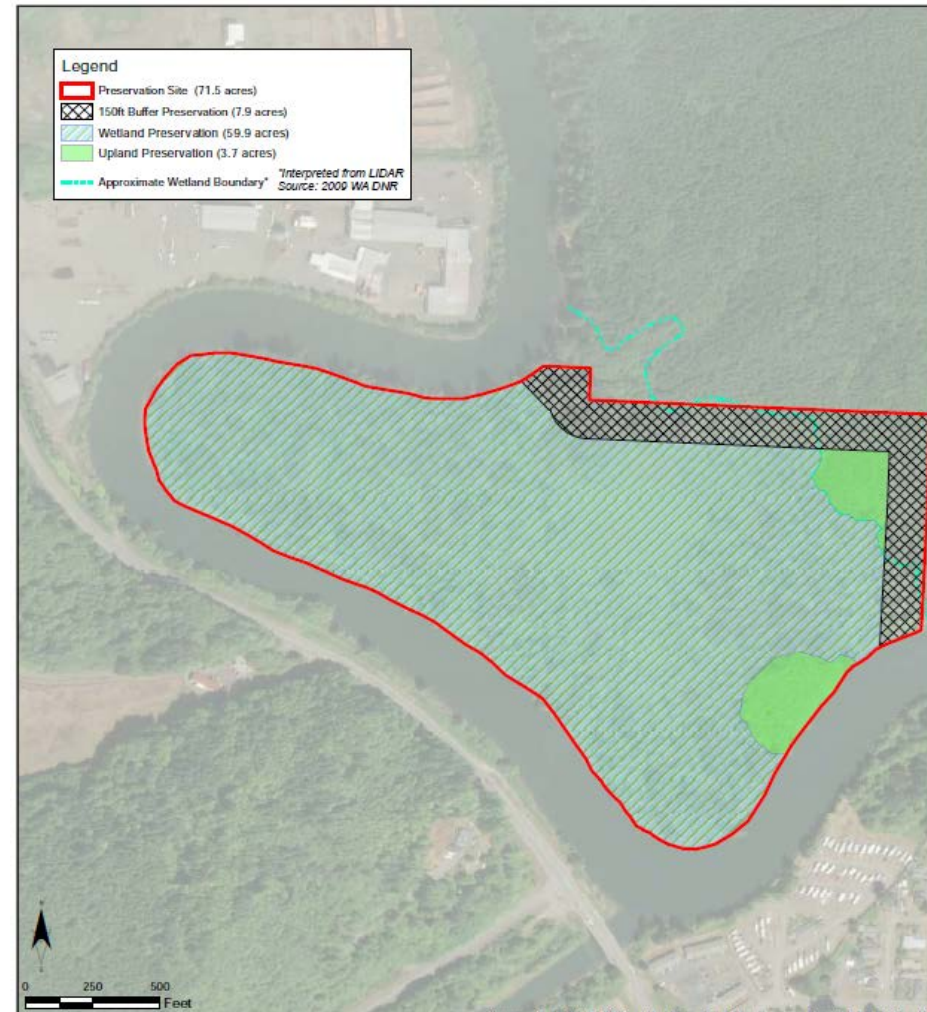


Exhibit BHP17 Sheet 25

Compensatory Mitigation - Hoquiam River Site

Summary

- Preserve an approximately 71.5-acre parcel of high quality floodplain wetlands and forested buffer on the Hoquiam River.
 - Preserves approximately 59.9 acres of Category I wetlands and 3.7 acres of forested uplands.
 - Preserves an additional 7.9 acres of forested uplands and wetlands within a 150-foot buffer.
- Permanently protects the site from development



Operations summary

Feature	
Potash Terminal Design Capacity	Up to 8 Mtpa*
Unit Train Size	177 cars
Unit Train Length	8500 feet
Unit Car Capacity	103 metric tons
Trains per Week	8-10
Export Vessels (average)	4 per week

*million tonnes per annum

Regulatory process

Federal Approvals/Permits

- **USACE – Section 10 Rivers and Harbors Act Permit, and Section 404 Wetland Fill including:**
 - National Environmental Policy Act (NEPA) Review
 - Section 408 (review not required)
 - Section 106 Cultural Resources Review
 - USACE Dredged Material Management Office (DMMO) – Dredged Material Disposal Suitability Determination and approval of open-water disposal of dredged materials (February 19, 2019)
 - U.S. Fish and Wildlife Service (USFWS) and NOAA Fisheries
 - Endangered Species Act (ESA) Consultation
 - NOAA Fisheries Essential Fish Habitat (EFH) Consultation
- **National Oceanic and Atmospheric Administration (NOAA) - - Marine Mammal Incidental Harassment Authorization**
- **U.S. Coast Guard (USCG)-- Private Aids to Navigation Review**
- **Federal Aviation Administration (FAA) -- Aviation Obstruction Evaluation**

Regulatory process

State Approvals/Permits

- 401 Water Quality Certification (WQC)
- Coastal Zone Management Act Consistency Determination
- Shoreline Conditional Use Permit and Variance
- National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit and Industrial Stormwater Permit
- Washington State Department of Fish and Wildlife (WDFW) Hydraulic Project Approval

Local Approvals / Permits

- Shoreline Substantial Development Permit, Shoreline Conditional Use Permit and Shoreline Variance
- Critical Areas Review
- Land Use Conditional Use Permit
- Floodplain Permit
- Construction Permits (Grading, building and trades, etc.)
- Binding Site Plan
- ORCAA – Notice of Construction Order of Approval

Schedule

24 October

- Public Hearing held in Hoquiam.

12 November

- Submission of Post-Hearing Brief to Hearing Examiner.

20 December

- Close of record to address mitigation required by Quinault Indian Nation.



Source: BHP

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