



# Hood Canal Coordinating Council (HCCC)

Jefferson, Kitsap & Mason Counties; Port Gamble S'Klallam & Skokomish Tribes

## Hood Canal Shellfish Summit Meeting Summary

Date: October 22, 2020; 12:30 PM to 3:30 PM

Location: Zoom

### Links:

- [Agenda](#)
- [HCSI Action Plan presentation](#)
- [Rachel Hansen's presentation](#)
- [Draft Hood Canal Shellfish Initiative Action Plan](#)
- [Action Plan comment form](#) (comment period open until Nov. 11, 2020)

### Attendees:

- Allen Miller, Hood Canal waterfront property resident
- Andrea Thorpe, Washington State Parks and Recreation
- Andy Hokit, Hood Canal Salmon Enhancement Group
- Anne Hallett, community member, Mason County
- Barbara Ann Smolko, Pierce County and South Sound Clean Water Partners Coordinator
- Bill Dewey, Taylor Shellfish Farms
- Blair Paul, Skokomish Indian Tribe
- Bob Simmons, Washington State University Extension
- Bobbi Hudson, Pacific Shellfish Institute
- Camille Speck, Washington Department of Fish and Wildlife
- Chris Waldbillig, Washington Department of Fish and Wildlife
- Dan Tonnes, National Oceanic and Atmospheric Administration
- Dawn Hanson Smart, Hood Canal Snail
- Darlene Schanfald, Olympic Environmental Council and Protect the Peninsula's future
- Dave Herrera, Skokomish Indian Tribe
- David Fyfe, Northwest Indian Fisheries Commission
- Fred Dunlap, waterfront property resident
- Gus Johnson, Hood Canal Salmon Enhancement Group
- Hilary Hayford, Puget Sound Restoration Fund
- Holly Hallman, waterfront property resident
- Jacquelyn Stenman, Jefferson County Public Health
- Jan Wold, community member
- Jean Frost, Washington State Department of Health
- Jen Thurman-Williams, Mason Conservation District
- Jeromy Sullivan, Port Gamble S'Klallam Tribe
- Jodie Toft, Puget Sound Restoration Fund
- John Arthur, Hood Canal Environmental Council
- Jonathon Wolf, Skokomish Indian Tribe
- Julian Sammons, Skokomish Indian Tribe
- Karin Leaf, Economic Development Council of Mason County
- Kevin Shutty, Mason County Board of County Commissioners
- Kimberly McClurg, Marine Surveys & Assessments
- Kirk Boxleitner, Shelton-Mason County Journal

- Laura Blackmore Puget Sound Partnership
- Laura Butler, Washington State Department of Agriculture
- Linda Owens, Executive Assistant to Senator Christine Rolfes
- Maradel Gale, Sound Action/Sustainable Bainbridge
- Margaret Pilaro, Pacific Coast Shellfish Growers Association
- Marilyn Showalter, community member, Jefferson County
- Michael Dawson, Jefferson County Public Health
- Monica Montgomery, Jefferson County WSU Extension/Jefferson County Marine Resources Committee
- Neil Harrington, Jefferson County Marine Resources Committee
- Paul McCollum, Port Gamble S'Klallam Tribe
- Phil Best, Hood Canal Environmental Council
- Port Townsend Leader
- Rachel Hansen, Mason County Tourism/Northwest Event Organizers
- Rebecca Mars, HCCC Lead Entity Citizens Advisory Group
- Robin Lawlis, HCCC
- Doug Rogeres, Washington Department of Fish and Wildlife
- Roy Clark, Washington Department of Fish and Wildlife
- Sarah Fisken, shoreline landowner/Jefferson County Marine Resources Committee
- Scott Chernoff, Washington Department of Health
- Sean MacDuff, Washington Sea Grant
- Seth Book, Skokomish Indian Tribe
- Steph Jones, HCCC Lead Entity Technical Advisory Group/AquaTechnics
- Stephen Phillips, Pacific States Marine Fisheries Commission
- Teri King, Washington Sea Grant
- Terry Fischer, HCCC
- Tim Weissman, Jefferson County Public Health
- Russell Callender, Washington Sea Grant
- Wei Ying Wong, Washington Sea Grant
- Whitney McDaniel, Mason Conservation District

Meeting facilitators:

- Haley Harguth, HCCC
- Nate White, HCCC

Breakout group facilitators

- Kelly Biedenweg, Department of Fisheries and Wildlife, Oregon State University
- Scott Brewer, HCCC
- Haley Harguth, HCCC
- Rebecca Hollender, Puget Sound Partnership
- Alicia Olivas, HCCC
- Nate White, HCCC

**Welcome and Introductions**

HCCC Board chair (Jeromy Sullivan, Port Gamble S'Klallam Tribe) called the meeting to order and introduced HCCC Board members attending the Summit. HCCC Board members Kevin Shuttly (Mason County Board of County Commissioners), and Paul McCollum (Port Gamble S'Klallam Tribe) introduced themselves. HCCC Board member Dave Herrera (Skokomish Indian Tribe) was also in attendance. HCCC staff then provided an overview of HCCC and the Hood Canal Shellfish Summit.

- The Hood Canal Shellfish Summit is hosted by HCCC. HCCC is a council of governments consisting of Jefferson, Kitsap, and Mason counties and the Port Gamble S'Klallam Tribe and Skokomish Indian Tribe. HCCC's mission is to "work with partners and communities to

advance a shared regional vision to protect and recover Hood Canal's environmental, economic, and cultural wellbeing." Attendees are encouraged to learn more about HCCC at <http://hccc.wa.gov> and <http://ourhoodcanal.org>.

- The Hood Canal Shellfish Summit is a presentation of the Hood Canal Shellfish Initiative (HCSI).
- Haley Harguth (HCCC) and Nate White (HCCC) were introduced as the Summit facilitators.
- Zoom logistics, ground rules, and the agenda were reviewed.

### **Hood Canal Shellfish Initiative (HCSI) Purpose**

HCCC Board members Jeromy Sullivan, Kevin Shutty, and Dave Herrera presented their thoughts on the purpose and importance of shellfish and the Hood Canal Shellfish Initiative.

- Jeromy Sullivan (Port Gamble S'Klallam Tribe)
  - o Subsistence harvest of shellfish is important, as is the cultural importance of shellfish since time immemorial. It is important to maintain and restore habitat to keep the food web and harvesting opportunities intact.
- Kevin Shutty (Mason County Board of County Commissioners)
  - o "We don't inherit our land/waters from our ancestors, we borrow it from our children". Give our kids and those who come after us an opportunity to share in the benefits of Hood Canal shellfish culture. Improve the power of collaborative partnerships in our region to bolster our shared interest in protecting shellfish resources so we can continue to enjoy and hand down shellfish resources to future generations.
- Dave Herrera (Skokomish Indian Tribe)
  - o Shellfish are one of our treaty resources; our ancestors signed treaties to secure our way of life for us today and for our children into the future. We are tied to natural resources (including shellfish): these things make us who we are. If we lose these things, then we would become different people. Many Skokomish tribal families are involved in, or know others who are involved in natural resources. Gathering these resources maintains our way of life and identity. A natural resource-based economy provides most of our income, so it is important to preserve and build these industries, which are helping to protect habitat for the most part.

### **Speaker: Rachel Hansen, "The connection between our shellfish and community: tourism, cultural and educational value"**

- Rachel Hansen (Mason County tourism/Northwest Event Organizers) presented a [presentation](#) titled "The connection between our shellfish and community: tourism, cultural and educational value".
  - o Comment: I appreciate the example of sea otters but feel I need to point out that they are not present in Hood Canal. The Washington population is limited to the outer coast.

### **HCSI [Action Plan Presentation](#)**

HCCC staff presented the details of the Hood Canal Shellfish Initiative.

- HCSI Background: Hood Canal's shellfish connection
  - Hood Canal's natural ecology and topography create perfect shellfish habitat
  - Humans have harvested shellfish here since time immemorial. Practices continue today by the area's local residents and its numerous visitors, and they remain of critical importance to Native American Tribes whose members harvest in Hood Canal.
  - Shellfish are "ecosystem engineers". They play an outsized role in forming, modifying, and maintaining habitat.
  - Shellfish also provide ecosystem services, including:
    - Regulating and supporting services, such as their abilities to stabilize the nearshore benthic environment, filter vast quantities of water, and cycle nutrients

- Provisioning of food for humans and non-humans
  - Human cultural benefits
- Our relationship to shellfish is built on more than their economic and environmental benefits - they are also a key component of the region's identity
  - For example, the Puget Sound Partnership Human Wellbeing survey found strong connections between Hood Canal residents and the natural environment, with frequent participation in activities related to shellfish harvest and environmental events and traditions
- Shellfish economy
  - The local economy is buoyed by natural resource industries
  - Commercial shellfish operations maintain a prominent role in Hood Canal's livelihood and identity
  - Shellfish provide invaluable ceremonial and subsistence value of shellfish to Hood Canal Tribes
  - The shellfish industry in Hood Canal (including aquaculture, and tribal and non-tribal wild harvest) supplied 13.2% of the state's shellfish production in 2015 (4M lbs.)
  - There are an estimated 520 shellfish aquaculture industry jobs across Jefferson, Kitsap and Mason counties
  - Every dollar spent in the shellfish aquaculture industry results in a \$1.82 return in economic activity
- HCSI origins
  - The development of the HCSI is a longstanding priority in HCCC's Integrated Watershed Plan (IWP), which are the strategic priorities to protect and recover Hood Canal's social-ecological system. It is the Strategy 4.0 placeholder for shellfish protection in the IWP. The HCSI is also a high priority for the HCCC Board.
  - The HCSI is funded with locally-directed funds through HCCC's role as the Local Integrating Organization for the Puget Sound Partnership
  - An ad hoc workgroup of shellfish partners and board members developed early ideas and foundation of our HCSI objectives
  - HCCC operated under some Guiding Principles throughout the action plan process:
    - Bring all shellfish users into the process; Develop multi-benefit strategies that are inclusive of all shellfish users
    - Build on the Washington State Initiative (don't just repeat it)
    - Emphasize local issues and locally specific solutions: ensure local feasibility and local selectivity
    - Focus where our efforts are most effective
    - Prioritize actions that contribute to multiple objectives
  - The success of the HCSI will be determined by collaboration, buy-in, and commitment from partners
- HCSI Action Plan Development: Process overview
  - HCCC established an inclusive workgroup of shellfish partners, representing a variety of interests
    - Consistent participation from 10-20 workgroup members
    - Met ten times in 2020
  - HCCC staff and the workgroup applied a Structured Decision Making (SDM) framework to the action plan development process
    - We partnered with Oregon State University's Human Dimensions Lab, led by Kelly Biedenweg
    - SDM is a group decision-making process that aims to develop a common understanding of an issue first, and then create, evaluate, select, and implement innovative solutions
    - In many action plan processes, solutions are identified first, without discussing people's values, which can impair buy-in, commitment, and investment in the plan when it comes time to implement the plan

- We intentionally centered the values of the workgroup into our process so that decisions and solutions would honor the things the workgroup cared about
  - Developed shared priorities
    - Action plan content was prioritized using the SDM approach. More detail on the prioritization process is found in the Action plan
- Our Opportunity
  - The workgroup created a high-level opportunity statement to summarize the opportunity presented by the HCSI for Hood Canal shellfish partners to collaborate and advance shared interests
  - The Opportunity Statement is listed on slide 11 of the presentation
- HCSI Goal
  - After the Opportunity Statement was created, the workgroup then created an overarching goal for the HCSI. It summarizes what the HCSI aspires to achieve.
  - The Goal is listed on slide 12 of the presentation
- HCSI Objectives
  - After the Goal was created, the workgroup created six broad objectives representing a variety of shellfish aspects
  - The objectives are listed and described on slides 13-19 in the presentation
- Actions Overview
  - The workgroup initially brainstormed actions to achieve individual objectives, but we quickly found that many actions impact multiple objectives. For example, an action originally brainstormed for the Water Quality objective may also impact other objectives as well. These synergies were viewed as a positive, and actions that impacted multiple objectives tended to be prioritized higher.
- Action Plan Prioritization
  - To develop our final list of prioritized actions, the workgroup first weighted the objectives based on their perceived importance. The objectives weights are listed on slide 21 of the presentation. More information on this process is in Appendix F of the action plan.
    - Water Quality and Shellfish Habitat were the top weighted objectives.
  - After weighting the objectives, the actions were individually rated based on their perceived contributions to achieve each objective. More information on this process is in Appendix E of the action plan.
  - The objective weights were multiplied by the actions ratings to yield the final list of prioritized actions.
- HCSI Priority Actions
  - The results of our prioritization process is a list of the top 18 priority actions for the HCSI to implement. The top 18 actions are found on slides 22-23 of the presentation.
  - Originally the workgroup was only going to use the top ten actions from the prioritization process. However, some workgroup members pointed out that some objectives are not represented in the top ten actions. They were concerned that those partners represented by the left out objectives would not feel ownership of the plan if they were not included in the top list of priority actions. Given this feedback, the workgroup decided to select the top two actions from each objective if they were not already represented in the top ten actions.
  - The top 18 priority actions and the objective they belong to are listed on slides 24-25 of the presentation. The color legend is below.
    - Water Quality
    - Shellfish
    - Cultural Appreciation
    - Sustainable Industry
    - Harvest Opportunities
    - Olympia Oysters

- Next Steps: Implementation
  - Implementation of our comprehensive plan will require a multi-faceted effort
  - HCCC has a small amount of initial funding to jumpstart implementation of the HCSI. HCCC's Board of Directors will make a funding decision in the coming months for how to spend these funds. HCCC aims to start HCSI implementation in early 2021.
  - In the long term, implementation of the HCSI will require various funding sources and contributions. We will be looking for partner commitments for this support. In addition to funding, we will look for partners to lend their expertise, share information, attend topical forums, and inform project selection, implementation, and programmatic operations of the HCSI.
  - We will also be pursuing public-private partnerships (PPPs) to implement the HCSI. We hope the multi-beneficial approach established by the HCSI will create the forum to build these partnerships. Effort will be needed to establish these partnerships and secure their contributions, but we will seek to leverage the connections we all share to make it happen. We also want to host future Hood Canal Shellfish Summits/workshops that could focus on how these PPPs can be effective
  - We will also pursue grant funding sources to fund our priority actions, including the U.S. Environmental Protection Agency's National Estuary Program through the Puget Sound Partnership Action Agenda, state and federal water quality programs, and other funding sources identified by partners.
- Adaptive Management
  - Integration with HCCC's Integrated Watershed Plan (IWP)
    - To ensure that the HCSI action plan is formally adopted into HCCC's work, it will be integrated into the IWP to build out the Shellfish Strategy 4.0 placeholder. A sub-group of the IWP Steering Committee will form to provide ongoing expertise and recommendations for funding, action plan priorities, and adaptive management solutions, and the HCCC Board of Directors will provide ongoing overall oversight and direction for the HCSI.
    - HCCC anticipates revisiting the HCSI every four years to address evolving priorities. This will align with other planning cycles related to the IWP.
    - HCCC anticipates hosting a recurring Hood Canal Shellfish Summit as funding allows
  - Monitoring Plan
    - The Monitoring Plan will track each HCSI objective's progress and long-term effectiveness by selected one performance measures and one aspirational targets for each objective. The HCSI action plan is not a shellfish recovery plan, so the performance measures and targets selected are fairly high level. They are meant to give a snapshot of the HCSI's effectiveness over time. The Monitoring Plan is summarized on slide 28 of the presentation. More detail on the Monitoring Plan is found in Appendix G of the action plan.

### **HCSI Action Plan Review**

Summit attendees were organized into Zoom breakout groups based on each of the six HCSI objectives to review and provide feedback on the actions brainstormed for the objectives. Attendees were placed based on their preferred objective stated in their RSVP, and an opportunity was given for people to switch groups during the Summit. Each group had an HCCC-affiliated facilitator to moderate the review activity and discussion. Each group used Google Slides to collaboratively and interactively provide real-time feedback on the actions developed for each objective.

Participants used digital colored dots to indicate their level of support for each action:

- **Green:** the reviewer supported the action, and how it is described
- **Yellow:** the reviewer had mild concerns about the action, its description, or how it should be implemented

- **Red:** the reviewer had serious concerns about the action, its description, or how it should be implemented

The actions were listed on individual slides, and participants were encouraged to use digital “sticky notes” to provide feedback on actions they wanted to comment on using the following guiding questions:

- Does the action incorporate/advance HCSI values? (i.e. is it locally relevant and feasible?)
- Does the action achieve the objective?
- Feasibility concerns
- Sequencing concerns
- Potential funding sources/partners
- Are actions missing from the list?

Discussions were then had based on areas where there were concerns and/or disagreement, indicated by many sticky notes and/or red or yellow dots.

Summaries of each breakout room conversation are below.

#### Water Quality: Facilitator: Haley Harguth (HCCC)

- Broad comments
  - o This industry uses, and loses, too much plastic.
  - o A major issue has to do with global warming, including the waters. This leads to major disorders and diseases for the shellfish and even the public that may eat the shellfish. We were made aware of this this week of increasing bacteria in the warming waters leading to human flesh eating and deaths. Are you considering this potential when you consider issues related to climate change?
    - Action 1.B.4 will likely include planting trees, which can shade water and lower water temperatures. Other actions in the Shellfish Habitat objective related to removing bulkheads and culverts made of concrete (which leaches acid) can also improve water quality.
  - o Also, what are the number of acres you intend to expand to in the HCC?
- Action 1.A.1. Implement Pollution Identification and Correction programs
  - o Dot voting
    - **Green:** 6x
  - o Sticky notes
    - Need analysis of shellfish extracting food from water other species need
    - Stormwater programs need to be included in PIC
    - Seem to be focused on helping commercial farms, not impact of farms on other
    - Need to add debris from commercial farms: tubes, nets, plastic, etc.
    - I know likely one of your goals will be to “upgrade” acres, but I would encourage coordination with DOH as to what acreage upgrades are achievable in different time frames
- Action 1.A.2. Coordinate a water quality workgroup of tribes, local jurisdictions, and state agencies (i.e. HCRPIC Program)
  - o Dot voting
    - **Green:** 5x
  - o Sticky notes
    - Need to broaden view of water quality to include sediment, plastics, debris
- Action 1.A.3. Coordinate a cross-jurisdictional approach for dedicated and sustainable funding for PIC and on-site sewage (OSS) management programs
  - o Dot voting
    - **Green:** 4x
  - o Sticky notes

- Does this mean that individual local funding would go into a combined fund for regional activities?
    - High priority; will help make 1.A.1 more feasible.
    - Sustainable funding for PIC projects for each jurisdiction will be necessary into the future. The State/Feds won't fund forever.
- Action 1.A.4. Update HCCC member counties on-site septic system management plans.
  - o Dot voting
    - Green: 1x
  - o Sticky notes
    - Implement O&M programs?
    - Good about septic systems and monitoring and record upkeeps
- Action 1.A.5. Ensure on-site septic system maintenance records are up to date
  - o Dot voting
    - Yellow: 1x
    - Green: 2x
  - o Sticky notes
    - To me the lag is likely due to lack of funding for OSS follow up
    - How to implement or enforce?
    - Is this part of an O&M program or a stand alone?
- Action 1.A.6. Provide rebates and incentives for on-site septic system maintenance
  - o Dot voting
    - Yellow: 1x
    - Green: 5x
  - o Sticky notes
    - Although I support this action this should not be abused by certain landowners and they should take responsibility if possible. Important to prioritize work into areas so as to use as an incentive.
- Action 1.A.7. Monitor toxic chemicals in Hood Canal shellfish, fish, eelgrass, and seaweeds
  - o Dot voting
    - Yellow: 2x
    - Green: 2x
  - o Sticky notes
    - Stormwater folks are using mass spectrometers.
    - This is challenging. So many potential toxins and can be expensive to run labs.
    - Need to add focus on the impacts of removing lower food chain organisms to other species like salmon/birds, etc.
    - Need to better understand impacts on species.
    - Need to add plastic, sediment, garbage
    - Which parameters will be the focus of monitoring, and how is this "shortlist" determined?
    - PSEMP might have some info on this. Due to lack of major industry other than Bangor and nonpoint pollution the HC is relatively clean compared to other areas of Puget Sound. HAB toxins might be the most important toxin to focus on
    - HABs?
    - Will NAVY ENVEST program support this with funding? I believe this was for PSNS/Sinclair inlet work with Bremerton and Kitsap Co.???
    - This work is important but would need to be targeted. Start with areas or pollutants that put human consumers at the greatest health risk.
- Action 1.A.8. Assess effectiveness of Hood Canal Marine Recovery Areas
  - o Dot voting
    - Yellow: 1x
    - Green: 2x
  - o Sticky notes

- Is most of Hood Canal already designated an MRA?
    - This may already be an objective/action of the DOH small on-site sewage program.
    - What metrics will be measured to determine 'effectiveness'?
    - Does this mean looking into establishing all of Hood Canal as a MRA?
    - Assessing the effectiveness of MRA or of OSS programs?
- Action 1.B.1. Seed shellfish beds in targeted areas with water quality issues
  - o Dot voting
    - Red: 1x
    - Yellow: 1x
    - Green: 1x
  - o Sticky notes
    - Danger in seeding in areas of bad water quality, in event they are harvested.
    - Additional impact from addition of species; need more research to understand impacts (existing and potential new, especially regarding forage fish)
    - Seeded with what species of shellfish? Case by case?
      - It would absolutely be a case by case basis
    - Ensure disease free seed source?/Follow WDFW transfer permit guidelines
    - Is this in Prohibited waters? Approved?
    - If seeded with native Olympia oyster even if in poor water quality area this could be an important seed source for spreading a once widespread species
    - Potential human health risk?
    - If seeding happens in poor water quality areas, this could help water quality with filtration but still potential problem if people try and harvest. Are these areas that could be clean in the future?
    - Source of pollution would still persist
    - At the moment there are 19-25% of Puget Sound tidelands that are tied up in shellfish permitting right now, depending on whose numbers you use. So that means only 75-81% of the rest of the areas (which are not the better estuary areas of Puget Sound) are available to other species unimpacted by shellfish farming. So it looks to me like this would be adding more impact with either unnatural organisms or too many natural organisms that are impacting all the other species. So that is a concern.
- Action 1.B.2. Implement best management practices to collect and treat stormwater runoff and maintain natural hydrology
  - o Dot voting
    - Green: 4x
  - o Sticky notes
    - Need broader view-largest garbage problem often shellfish farms
    - Split? Quantity impacts vs. quality impacts.
    - Toxins from road and parking surfaces
- Action 1.B.3. Support efforts to decommission unmaintained forest roads
  - o Dot voting
    - Green: 3x
  - o Sticky notes
    - Need to focus on private harvesting massive clearcuts
- Action 1.B.4. Support forest logging practices that reduce runoff impacts
  - o Dot voting
    - Green: 3x
  - o Sticky notes
    - Massive new clearcuts in northern Hood Canal by private companies
    - Some success in Skokomish on this. DNR ORV areas are issues at stream crossings. Some work on this.
- Action 1.B.5. Assess status of and update oil spill response plans

- Dot voting
  - Green: 3x
- Sticky notes
  - Like the addition of terrestrial spills.
  - The hazardous Geographic response plans for Hood Canal were recently updated
- Action 1.B.6. Assess the impacts and solutions for high concentrations of seals on man-made structures in important shellfish areas
  - Dot voting
    - Yellow: 1x
    - Green: 2x
  - Sticky notes
    - Include other species that like human structures? Sea Lions?
    - Seals have used estuaries for habitat and rearing etc. but human structures may cause focused problems. People used to harvest seal, Orca eat seal. Complex issue.
    - Only seals? What about birds, raccoons, etc.?
- Action 1.B.7. Remove creosote pilings
  - Dot voting
    - Green: 4x
  - Sticky notes
    - What about shellfish absorbing microplastic that people eat?
- Action 1.B.8. Assess sufficiency of boaters' access to pump-outs throughout Hood Canal
  - Dot voting
    - Yellow: 1x
    - Green: 2x
  - Sticky notes
    - Many boats on the Hood Canal are not large and don't have pump out tanks but rather use small buckets/portable toilets
    - Follow up? Plan to add more?
- Action 1.C.1. Outreach to landowners on how to prevent impacts from stormwater runoff
  - Dot voting
    - Yellow: 1x
    - Green: 2x
  - Sticky notes
    - This covers a lot of ground. Split?
- Action 1.C.2 Outreach to landowners on proper septic systems maintenance
  - Dot voting
    - Green: 4x
  - Sticky notes
    - The education and outreach items need to be combined with all the earlier actions
    - Seems basic and Public health seems to be the lead on this.
- Action 1.C.3. Improve public awareness of DOH Shellfish Safety Map
  - Dot voting
    - Yellow: 1x
    - Green: 5x
  - Sticky notes
    - Make connections between DOH/WDFW and HAB toxin for better education and easy to access.
- Action 1.C.4. Outreach to boating community about preventing boat waste
  - Dot voting
    - Green: 4x
  - Sticky notes

- It might also be good to reach out the commercial (Fisheries) boat users as well
- Action 1.C.5. Provide port-a-potties/septic and trash facilities for high use recreational fishing and shellfishing sites
  - Dot voting
    - Green: 6x
  - Sticky notes
    - Is a smart way to solve problems directly and should be implemented ASAP. A fund would help local jurisdictions cover these costs.

Shellfish Habitat: Facilitator: Alicia Olivas (HCCC)

- Broad comments
  - I like the focus on native species, as distinguished from non-native.
  - Two dichotomies I think need MORE attention: small-scale vs commercial/industrial scale activity; and private-interest vs public benefit activities. These should not all be lumped together.
- Action 2.A.1. Create a list of viable shellfish protection and restoration areas for native species
  - Dot voting
    - Yellow: 1x
    - Green: 2x
  - Sticky notes
    - There needs to be a place to support non-native commercially important species (pacific oyster & manila littleneck clams)
    - I know it says collaboration, but there is a large chance of getting sideways on this if the tribes and WDFW aren't involved from the start. Protected areas means giving up resources and that can be big.
    - Butter clams can be included
    - Is the protection and restoration apply to habitat or species? Is restoration of habitat or species?
    - Like focus of native species as distinct from non-native
  - Discussion
    - For native species only, so no focus on pacific oysters, mahogany/varnish clams, etc.?
      - Yes
    - I'm struggling with how to reconcile the focus on native species for this action with the commercial shellfish industry's current reliance on non-native species. How do we evaluate these actions without considering that the current economic system focuses on non-native species?
    - Include a focus on native species in their native habitat. Ex. the geoduck industry is using a native species, but developing them commercially in non-natural densities. Want to focus on natural densities without equipment.
      - I don't think that needs to be an issue. Many of these actions benefit native and non-native species, so it's OK not to specify that these actions are for either native and non-native species. In certain areas we're (tribe) going to choose to do enhancement of non-native species with equipment and in another areas we won't do that.
      - Agree. Concerned if using native species in native habitats at their natural densities becomes a criteria that determines if harvesting is allowed to happen or not. Supports softening the language a little bit so it doesn't exclude non-native species if they're in the same habitat type and economically important.
- Action 2.B.1. Conduct a regional shellfish population density study for native species
  - Dot voting

- Green: 1x
- Action 2.C.1. Monitor and control European green crab in Hood Canal
  - Dot voting
    - Green: 1x
- Action 2.C.2. Monitor and control Oyster drills in Hood Canal
  - Dot voting
    - Green: 1x
- Action 2.C.3. Monitor and control nonnative eelgrass in Hood Canal
  - Dot voting
    - Green: 1x
  - Sticky notes
    - Control often refers to removal of that species. Even non-native eelgrass has ecological value as a nursery for crab. Jefferson County currently has protections in their permitting process for the non-native eelgrass that could allow shellfish farming without going through their substantial shoreline development permit process.
  - Discussion
    - Does Japanese eel grass mingle with native eelgrass? If so, would it be difficult to separate them or do they create their own patches?
      - Japanese eel grass lives at higher tidal elevations than native eelgrass, but there is a commingling area where they both live.
- Action 2.D.1. Establish clam gardens
  - Dot voting
    - Green: 1x
  - Sticky notes
    - Encourage native species
    - Tidal heights of the placement of these rocks and any substrate enhancement need careful attention to not promote the invasive varnish clam to proliferate in the clam garden.
    - Promote diversity of species and avoid monocultures
    - Creating rock walls along the shoreline would likely need a fill permit from the Army Corps which might deter people from this option
  - Discussion
    - This reads like we've never done this before in Hood Canal. Is this introducing some new way of raising clam?
      - I'm not aware of any identified clam gardens that are located even historically inside Hood Canal. It's not to say there aren't, but there hasn't been any that have been brought to our attention that are in place. It's a practice that has been much more publicized up in Canadian waters.
      - Shell placement and graveling and creating clam habitat itself without the bottom being a wall of rocks has happened in Hood Canal to create clam habitat.
    - Scale matters: if this is done on a large scale, you might be introducing a monoculture into an otherwise diverse habitat, and it might have an environmental impact. On the other hand small patches may be OK.
    - Promoting diversity of native species and avoiding monocultures to the detriment of robust habitat should be added.
    - Is the intent strictly for native clam species? Would it include efforts to cultivate non-native species like Pacific oysters, manila clams, mahogany/varnish clams, anything like that? We definitely want to discourage making clam gardens for non-native species.
      - Feasibility concerns: Native little necks (native) and Manila clams (non-native) live in the same tidal elevation and the same habitat, so

it might be hard to keep the non-native species out. But aiming for only native species for this action is good.

- Change title to “Establish clam gardens for native species”
- Action 2.D.2. Enhance clam beaches with gravel and shell
  - o Dot voting
    - Green: 1x
- Action 2.D.3. Enhance oyster beaches with shell
  - o Dot voting
    - Green: 1x
- Action 2.D.4. Support culvert removal and restoration for important shellfish habitat
  - o Dot voting
    - Green: 2x
  - o Sticky notes
    - Identifying where these firehose culverts are needs to occur
  - o Discussion
    - Consider the overlap for action 2.E.1
    - I've seen some of these culverts that have, on a really high rain events, cover over large oyster beds with transported sediment. In the next year the bed is completely gone.
      - Agree
- Action 2.D.5. Support usage of soft armoring and removal of hard armoring
  - o Dot voting
    - Green: 2x
  - o Sticky notes
    - This is a difficult topic -- will often require coordination between multiple owners, and is a potentially divisive issue. How can these problems be addressed?
    - Could some kind of incentive program be set up like Kitsap Co did to encourage people to remove bulkheads or use soft armoring?
  - o Discussion
    - Sea level rise will make removal of armoring more difficult
- Action 2.D.6. Clean up “ghost gear”
  - o Dot voting
    - Green: 2x
- Action 2.E.1. Promote best management practices for salmon habitat protection/restoration efforts that could adversely affect shellfish habitat
  - o Dot voting
    - Yellow: 1x
    - Green: 1x
  - o Sticky notes
    - Promote best management practices for salmon habitat protection/restoration efforts that could adversely affect shellfish habitat AND, CONVERSELY, PROMOTE BEST MANAGEMENT PRACTICES FOR SHELLFISH HABITAT THAT would avoid ADVERSELY AFFECT SALMON AND OTHER SPECIES (add to the action title). This edit would change my yellow dot to a green dot.
  - o Discussion
    - Consider the overlap for action 2.D.4
- Action 2.E.2. Conduct an assessment of shellfish-related county land use policies and regulations for impacts to shellfish habitat
  - o Dot voting
    - Green: 1x
  - o Sticky notes
    - Maybe a document outlining best practices for each of these land uses would be a start

## Cultural Appreciation: Kelly Biedenweg (Oregon State University)

- Broad discussion
  - o These activities focus more on the science and shellfish growing rather than 'cultural' appreciation. Is there a space or components that can more fully integrate 'cultural' aspects? Memory making and identity are part of cultural relevance, how can these be integrated?
    - Digging for dinner activities (Action 3.B.2) are the cultural experience that is more effective. Focus on activities that are more in the heart than the head. Connecting people to the community.
    - The handouts about 'how we harvest shellfish' are good for connecting people to cultural aspects, such as the example given in Rachel Hanson's presentation.
- Action 3.A.1. Incorporate tribal and non-tribal cultural practices associated with shellfish into the Washington Office of Superintendent of Public Instruction's Native American curriculum, where appropriate
  - o Dot voting
    - Yellow: 1x
    - Green: 2x
  - o Sticky notes
    - Squaxin also has a booklet that is distributed to schools
    - Oyster Fest Kids day not happening anymore mobile touch tanks
    - Slightly out of Hood Canal but Jamestown teaches Port Townsend 8th graders about shellfish management and harvest
    - I like this idea but I'm curious about how many schools actually incorporate this curriculum - it would probably require a more concerted effort to increase its integration in public schools
- Action 3.A.2. Create scholarships and local grants for K-12 and college students to study local cultures around Hood Canal shellfish
  - o Dot voting
    - Yellow: 2x
    - Green: 1x
  - o Sticky notes
    - I like this, and also would include internships and apprenticeships
  - o Discussion
    - Scholarship action is less supported: Internships and apprenticeships probably more important than scholarships for K-12. Apprenticeship with shellfish grower would be better. Combine with the prior action of education.
    - Port Townsend 8th graders do a clam survey and learn about co-management and it is a powerful class. One of the big issues around getting kids out of the classroom is the transportation costs and other logistics.
    - The marine education science society (MESS) has touch tanks at Oyster Fest - these are the best value for families to engage and learn from biologists. Take the animals and the water from the location where the installment is occurring. Have the kids become stewards and get educated by the biologists. There are only so many people to implement these ideas though. Need dedicated individuals to implement these types of trainings - money isn't enough.
- Action 3.A.3. Support school, 4H, and Future Farmers of America club efforts to incorporate shellfish and local cultural practices
  - o Dot voting
    - Green: 3x
  - o Sticky notes

- Mason County Fair/ WA Fair Association shellfish division open class and WSU 4-H shellfish program would create a unique showcase opportunity. GREAT ideas.
- Action 3.A.4. Develop ideas and track outcomes of shellfish research projects by college/university students
  - Dot voting
    - Green: 2x
  - Sticky notes
    - The Pacific Coast Shellfish Growers Association would be a good resource to tap into on this one
    - Will this include more social/cultural researches too? (And therefore outreach to other appropriate departments)
- Action 3.B.1. Host local education efforts about tribal treaty rights for shoreline landowners and shellfish growers
  - Dot voting
    - Green: 2x
  - Sticky notes
    - This would be a great opportunity for the community to connect and respect each other's cultural investment in the Canal.
- Action 3.B.2. Work with local shellfish educators to host events featuring shellfish topics
  - Dot voting
    - Green: 3x
  - Sticky notes
    - There is a high demand for this!
    - Marine touch tanks are always very popular at events.
- Action 3.B.3. Host local public forums on shellfish-related community benefits and activities
  - Dot voting
    - Yellow: 1x
    - Green: 3x
  - Sticky notes
    - Important for residents to realize that maybe the very reason they moved to Hood Canal was because of the resources and the activities around them as well as the access. Reminder of all the stakeholders and how each is connected and important.
- Action 3.B.4. Work with chefs to promote culinary outreach highlighting Hood Canal shellfish
  - Dot voting
    - Yellow: 1x
    - Green: 2x
  - Sticky notes
    - Olympic Culinary Loop
- Action 3.B.5. Highlight WDFW and Tribes' co-management of shellfish resources on WDFW website
  - Dot voting
    - Yellow: 1x
    - Green: 2x
  - Sticky notes
    - Not sure if they have them but WDFW harvest monitors (creel checkers) should have handouts of info for when folks ask.

Sustainable Industry: Facilitator: Scott Brewer (HCCC)

- Action 4.A.1. Establish Hood Canal shellfish industry marine debris reduction program
  - Dot voting
    - Green: 3x
  - Sticky notes

- I think growers would welcome info on BMPs
    - More events like PCSGA could expand the clean-up
  - Discussion
    - Favorably looked on and given positive feedback overall. Most felt this was a top priority or one of the top priorities of the actions provided this subgroup. Those commenting felt the industry would be open to information regarding BMPs. One suggested the recent PCSGA event could help to expand the clean-up marine debris.
- Action 4.A.2. Conduct regular public beach clean-ups partnering the shellfish industry and stakeholders
  - Dot voting
    - Green: 3x
  - Sticky notes
    - Hood Canal based events with PCSGA would be welcome
  - Discussion
    - Very similar to the reaction received for Action 4.A.1. It was suggested that Hood Canal events coordinated through PCGSA would be welcome by the industry. This was close to a top priority similar to Action 4.A.1.
- Action 4.B.1. Conduct spatial analysis to identify suitable sites for aquaculture development and ecosystem protection needs
  - Dot voting
    - Green: 4x
  - Sticky notes
    - FYI - Oregon is building a similar spatial tool. Would be good to use elements of their methods as applicable to Hood Canal
    - NOAA has a national effort underway to identify Aquaculture Opportunity Areas. There may be resources from that to help establish one in the Hood Canal
  - Discussion
    - This action was highly regarded and a top priority. However, it was generally felt that it was too complex and costly to implement and would likely not be a reality. The group would like to see this happen and cited examples of places where it has worked.
- Action 4.B.2. Develop pre-permitting process for priority aquaculture development sites ("shellfish enterprise zones")
  - Dot voting
    - Yellow: 3x
    - Green: 3x
  - Sticky notes
    - Complicated
    - Pre-permitting could help make things simpler
  - Discussion
    - Industry folks in particular felt this action would be helpful. The group felt, as with Action 4.B.1., was too complicated and costly to pull off and would likely not be a reality. This was not as high of a priority as Action 4.B.1. due to the perceived complexity and cost.
- Action 4.B.3. Establish program to develop and strengthen local, qualified workforce
  - Dot voting
    - Green: 5x
  - Sticky notes
    - Good idea
  - Discussion
    - The group liked this action. In general, felt it was a good idea. Not a lot of discussion, however.

- Action 4.B.4. Assess opportunities for, and implement, improved local regulatory processes for shellfish growers
  - o Dot voting
    - Yellow: 1x
    - Green: 4x
  - o Sticky notes
    - Process is so complicated now
  - o Discussion
    - The industry, in particular, would like to see this occur, but felt it was too complicated to be a reality. This action elicited similar pessimism as Actions 4.B.1. and 4.B.2.
- Action 4.C.1. Pilot projects to research efficacy of localized carbon refuge projects in Hood Canal
  - o Dot voting
    - Yellow: 1x
    - Green: 2x
  - o Discussion
    - The group felt that this action was not as necessary as the industry is dealing with ocean acidification. This was not a priority for the group.
- Action 4.C.2. Support aquaculture industry research needs on disease, breeding methods, equipment and technology development, and pilot innovations in the field
  - o Dot voting
    - Green: 4x
  - o Discussion
    - The group liked this action. The industry people in particular support getting more attention and funding that can focus on research. This would be a top priority, especially from the industry perspective.
- Action 4.C.3. Support research and identify gaps on environmental interactions and impacts of shellfish aquaculture systems
  - o Dot voting
    - Green: 3x
  - o Discussion
    - The group liked this action. The industry people in particular support getting more attention and funding that can focus on research. This would be a top priority, especially from the industry perspective.

Harvest Opportunities: Facilitator: Rebecca Hollender (Puget Sound Partnership)

- Action 5.A.1. Advance long-term vision to support harvest management system
  - o Dot voting
    - Yellow: 3x
    - Green: 1x
  - o Sticky notes
    - This seems like an excellent place to partner with Mason Co. tourism work already occurring.
    - What is our (the-co-managers) “long term vision for its harvest management system”?
  - o Discussion
    - The co-managers “long term vision for its harvest management system” is a discussion that needs to occur between all of the co-managers (treaty tribes, state agencies). This action is in the province of these groups; not sure what the fit is with the HCSI when there is not yet a clearly defined vision.
      - Agree. The co-managers need to be supported, but this is for the co-managers to decide.
    - Co-managers are welcoming of help, even in the absence of a specific “long term vision”, but it’s probably more in the area of outreach to the public and

other harvesting groups about what the harvest management system means (rather than active engagement in management activities)

- Action 5.A.2. Support data-driven quota-setting process
  - o Dot voting
    - Yellow: 3x
    - Green: 1x
  - o Sticky notes
    - Support will be needed for public outreach piece.
    - This should be highlighted and adhered to.
    - Maybe have citizen science and/or education programs to assist in this
  - o Discussion
    - The quota setting process is one for the co-managers to decide. Open to input from outside sources on how best to do that.
    - Co-managers are open to partnership in scientific process (research) that will inform management.
- Action 5.A.3. Develop outreach and education activities to encourage public adherence to recreational harvest management regimes
  - o Dot voting
    - Green: 4x
  - o Sticky notes
    - Significant overlap here with 5.A.1
    - Sea Grant partnership?
- Action 5.A.4. Develop guidance to manage when harvest quotas are exceeded
  - o Dot voting
    - Green: 3x
  - o Sticky notes
    - This also overlaps with other outreach actions.
- Action 5.B.1. Develop and implement a comprehensive strategy to identify all public shoreline properties and access points
  - o Dot voting
    - Yellow: 1x
    - Green: 5x
  - o Sticky notes
    - Tideland ownership and lack of boundary marks in the field are significant barriers to this action.
    - Important first step in providing access to users
    - BIDN layer?
    - WDFW will eventually release this info in the Fish Washington app. But I think a website/mobile device map could be more streamlined from the shellfish group
  - o Discussion
    - There are obstacles to mapping private tidelands: very few are surveyed, private tideland ownership is very complex in this state, it's very easy to create an attractive nuisance, tideland surveys are expensive and there are not many people who do it.
    - It is important to work with the neighbors when creating new access so it doesn't create an enforcement nightmare.
    - This action should select sites that are appropriate for mapping public access. The idea that we can map every sub-unit of state land is not something we're going to achieve easily.
- Action 5.B.2. Acquire, protect, and improve access at properties that provide public access to tidelands in priority areas (uplands and shoreline)
  - o Dot voting
    - Yellow: 1x
    - Green: 3x

- Sticky notes
    - Follows up on access identification
- Action 5.B.3. Convene a forum of land trusts and other landowners to assess allowing public access to tidelands using conservation easements
  - Dot voting
    - Yellow: 3x
    - Green: 2x
  - Sticky notes
    - Seems like a good way to leverage existing access infrastructure.
  - Discussion
    - Enforcement issue = more beaches requires more effort by enforcement.
- Action 5.B.4. Coordinate and increase enhancement and seeding of clams and oysters at appropriate public harvest sites
  - Dot voting
    - Green: 4x
  - Sticky notes
    - Skokomish will be involved with enhancement north of Ayock Point, too.
- Action 5.C.1. Develop a public-facing shellfishing information website
  - Dot voting
    - Green: 4x
  - Sticky notes
    - Information changes daily
    - Location based
  - Discussion
    - This is a “monster.” DOH has made progress via partnership with WDFW on the Washington Shellfish Safety Map (a one-stop shop for all information related to legally and safely harvesting shellfish), but it may be very difficult for an outside entity to do this because shellfish access and safety information changes frequently, need to coordinate with Health, Safety, WA Administrative Code. Wording and punctuation about what beaches are legally and safely open and closed is very sensitive!
    - Might be better to link to already existing work within Hood Canal (e.g. WA Shellfish Safety Map) on a local portal (perhaps using Rachel Hansen’s mapping promotion work).
    - WDFW shellfish website is set up for aquaculture farming data (e.g. it’s a database platform that makes it easy to partner with others who want to pull in information).
    - Would be great to get the Washington Shellfish Safety Map promoted.
- Action 5.C.2. Develop a guide for boat-in shellfishing access and best practices
  - Dot voting
    - Yellow: 2x
    - Green: 3x
  - Sticky notes
    - I believe WDFW intends to make all public shorelines available on the Fish Washington app
    - Tideland ownership is extremely complex in WA and mapping for public access presents unique issues due to lack of actual land surveys and marks in the field.
  - Discussion
    - Enforcement concerns. There is a lot of shoreline out there.
    - Education around boat access is needed
    - Some sites will be easier for education: like known boating sites. WDFW used to offer a .PDF with boating sites - this could potentially be revised and posted.

- Action 5.C.3. Develop a program to teach shoreline owners to conduct self-monitored shellfish population and harvest surveys on private land
  - o Dot voting
    - Yellow: 3x
    - Green: 1x
  - o Sticky notes
    - There should be some connection to the data collection action
  - o Discussion
    - Concern how consistent and useful non-professionally collected data would be, especially since professional researchers are available.
      - Private shoreline owners could do their own surveys, but tribes might not agree with survey results
    - Data gap about how private residents interact with land.
    - Tribes have a pretty good database of private tideland surveys
    - Implications for treaty rights that should probably be brought out here (e.g. tribal treaty rights to harvest shellfish on private lands).
    - Whatcom or San Juan County might have had a community survey/shoreline assessment explaining how to do shellfish population surveys on private lands

Olympia Oysters: Facilitator: Nate White (HCCC)

- Action 6.A.1. Coordinate Hood Canal Olympia oyster restoration practitioners to collaborate with the Native Olympia Oyster Collaborative
  - Dot voting
    - Yellow: 3x
  - Sticky notes
    - Yellow: don't need to tie directly to NOOC, can be done outside of NOOC, in a different format that makes sense for local conditions, but do same work.
    - This is an easy 1st step to assess where we are currently in our understanding of the population in Hood Canal. We don't need to be restricted to connecting to NOOC if that's cost prohibitive.
      - I agree with this
    - Is NOOC specific to Hood Canal enough? I don't know that answer, but if they are West Coast specific would they need more local knowledge?
  - Discussion
    - We don't need to do Hood Canal work through NOOC: it's just an approach that's already taken that a lot of Olympia oyster restoration practitioners have contributed to, so we can build on that if we want, or peel off the useful info collected by NOOC and use it for our own purposes. For example, NOOC has a map that shows where Olympia oyster restoration is being done, and they are trying to collect and review restoration information in a standardized way, which can be a first step in generally understanding trends in population distribution and abundance.
    - NOOC is based in California. Are they more knowledgeable than our local Hood Canal experts? They have done work locally in Hood Canal. The majority of Olympia oyster work coordinated by NOOC has been done in the Puget Sound area, so they lean heavily on the lessons learned from the restoration and monitoring projects that have been done locally. Their work can be viewed at the following links: <https://olympiaoysternet.ucdavis.edu/>; <https://projects.trnerr.org/oysternmap/>
- Action 6.A.2. Conduct a multi-year assessment of existing Olympia oyster locations
  - Dot voting
    - Green: 4x
  - Sticky notes

- This could be a large effort and seek ways of crowd sourcing this information. Maybe a mobile App that folks could be on a beach and record where they observed Olympia oysters and drop a pin and take a photo. Data could be reviewed later.
  - Will these locations include private properties or only public tidelands?
  - Getting the geolocation done accurately throughout this effort will save time in the long run - doesn't have to be complex/expensive, can train community science participants on free cell phone apps
  - Also by private landowners?
    - If appropriate
  - This effort can build off of work Puget Sound Restoration Fund has started to assess where to best do restoration work based on existing site characteristics - [https://restorationfund.org/programs/olympiaoysters/#assessment\\_pathway](https://restorationfund.org/programs/olympiaoysters/#assessment_pathway)
- Action 6.B.1. Develop and implement a Hood Canal-specific Olympia oyster restoration plan
    - Dot voting
      - Green: 5x
    - Sticky notes
      - Don't the Olympia oysters do best at lower tidal elevations and where there is fresh-water seepage?
      - I like the collaboratively developed approach on this plan.
      - I can support this only if there are not plastic bags involved.
  - Action 6.B.2. Establish Olympia oyster restoration lead entity to coordinate among shellfish restoration community partners and projects
    - Dot voting
      - Yellow: 4x
    - Sticky notes
      - Yes! There is a lot of work that goes into coordinating and executing restoration. Perhaps this position could be a dedicated HCSI position w/in HCCC, so that the coordinator can work across the 6 objectives
      - Yellow: The idea has a structure to build off of, the SRFB process. But where would the funding come from? I believe the SRFB gets funding based on # of populations at risk or ESA listed. Not sure how that would work with Olympia oysters?
    - Discussion
      - The meat of the idea has merit, but would rather see a dedicated position that will support the entire HCSI Initiative, rather than just Olympia oyster restoration. It might be easier to fund the position this way.
      - The Salmon Recovery Funding Board (e.g. what funds the Lead Entity programs for salmon) has a backbone and structure: funding is given to Lead Entities based on how many Endangered Species Act (ESA)-listed salmon stocks are at risk or listed. How would this structure translate to funding a position focused on only Olympia oysters (which are not ESA-listed) in Hood Canal? Agree that the action should consider funding a position, just not following the Lead Entity framework.
  - Action 6.C.1. Increase Olympia oyster seed supply via Puget Sound Restoration Fund methods
    - Dot voting
      - Yellow: 2x
      - Green: 2x
    - Sticky notes
      - This will be particularly relevant in South Hood Canal, as seed enhancement seems to be what may be needed to kickstart the population there. Important

- to talk to WDFW about where in Hood Canal they would promote use of seed
  - Agreed about importance of talking with WDFW about seed use. Sometimes PSRF seed production is limited by relative demand in a given sub-basin - which illustrates the value of having an Hood Canal-specific action (large batch efforts often more efficient/feasible for producers than piecemeal projects)
- Action 6.C.2. Increase aged shell availability for Olympia oyster restoration efforts
  - Dot voting
    - Yellow: 2x
    - Green: 2x
  - Sticky notes
    - Do both Pacific oysters and Olympia oysters settle on the same shell? If so, how do you keep Pacific oysters from invading Olympia sites?
      - Yes, both Olympia oysters & Pacific oysters settle on Pacific oyster shell, but generally at different tidal elevations & often thrive in slightly different microhabitat, so shell placement can reduce Pacific invasion likelihood (I don't know of an invasion happening at a restoration site in recent history)
    - Great to see if WDFW may be willing to revisit ideas about shell recycling programs (e.g. from restaurants) so that we can use that shell after properly aged.
      - I agree that it would be great to revisit shell recycling programs
    - How long does it take to age the shell?
- Action 6.C.3. Implement shell stack efforts to measure recruitment
  - Dot voting
    - Green: 4x
  - Sticky notes
    - I think shell stacking is a great idea
    - This is relatively easy & low cost

### HCSI Action Plan Discussion

The facilitators for each breakout group reported on takeaways from their respective groups. See the "Discussion" notes under relevant actions in the preceding section for more detail. A full group discussion was had based on what was discussed in the breakout groups, as well as on any overarching comments about the plan. Comments and responses are summarized below.

- Add more time to comment for public-newspaper on line-could show more time
- One week is exceedingly short for a comment period. The plan should be widely distributed and posted via various channels, which alone may take a week. I recommend three weeks. There should also be a second comment period, so people can comment on other people's comments, or on a second draft
- Are there any discussions around replacing the plastic bags, ropes, and other growing equipment that are ending up in the water systems?
  - The plan does address those issues in the Shellfish Industry objective and the actions there. There are a few different actions around different aspects of that issue, from both from the cleanup perspective and also from the research perspective of developing new technology and new tools in the industry to help prevent that.
  - This topic was discussed at the recent Pacific Coast Shellfish Growers Association conference. There are some efforts in developing biodegradable bags that could be in the water, as well as recyclable packaging used for the insulation to keep shipped oysters cold. The Hamma Hamma Oyster Company is exploring these options. I don't think there's anything that's in place yet, but efforts are being made.

- There's been a lot of efforts in this area and I feel like questions like that are a bit outside the scope of the Hood Canal Shellfish Initiative. So I think we should stay focused on what the plan is and why we're all here today.
- Are the actions focused on Olympia oyster restoration an effort to restore Olympia oyster reefs as they previously existed, or is it going to be restoration using bagged oysters in the industrial sense?
  - The Olympia oyster restoration actions in the plan aim to form self-sustaining populations and natural habitat by not using an industrial approach.
- It's important to draw the distinction between private benefit and public benefit. What we are talking about here is using the public waters and environment for private and public benefit. Some of the actions we're talking about would benefit both, but in terms of setting priorities and resolving conflicts, it's important not to think that all of these actions are equal if they have differential effects on the either public or private benefits. I just don't see that here. Another dichotomy that I don't see here is what I would call small scale versus industrial or commercial scale. Some of the activities are for things that would be small scale that'll have very little impact on the environment. On the other hand, commercial activities, particularly where there's heavy equipment, can have a major effect. We could prioritize all of them, but not if one of them is conflicting with the public use of the environment or native species. If something that's non-native, non-natural, or on an industrial level is harming the native, then the native takes preference. In summary, native and public benefits should take preference. I don't see that anywhere in here. It may be implicit. It's not explicit.
  - The plan tries to integrate those things. The inclusive and collaborative nature of this effort creates mutual benefits for both public and private interests, and intends to address their respective needs and concerns at the same time. You see this in how the action plan was prioritized, especially with how the actions that have synergies across multiple objectives were prioritized higher.
  - It's worth visiting the consensus tool used to prioritize the plan to help understand how priorities stacked as they did.
- I applaud adding the impact of commercial shellfish on salmon, but I would also encourage us to take a look at the impacts of adding large numbers of non-native shellfish on all the other native species, as well as the water quality, because I don't see anyone really doing that.
  - The plan does address some of those ecosystem impacts and the need for additional research into those impacts from the industry infrastructure and the interplay and relationships between the ecosystem and species that are also using the nearshore environment. There's been a great deal of research done by the Pacific Shellfish Institute and other folks and that research continues. These research needs are included in the plan. There's a continued need for more of that research to answer those questions.
    - Visit <http://pacshell.org/> for shellfish research projects and educational tools
  - From the perspective of Olympia oyster restoration, a really powerful step forward is to be able to look Hood Canal-wide and ask where we have and do not have restoration needs for our native oysters. What are our highest priority areas? Where are there areas that are depopulated of larvae? Where are there areas where we don't have good enough water quality? To answer these questions, we need to take into account where we already have a lot of shell habitat (either in the form of Pacific oysters or remnant Olympia oyster populations) where the larval Olympia can settle on and boost that ecosystem service. That's one way we can assess some of the multiple benefits or detriments of different actions.

## Wrap Up and Next Steps

Participants were encouraged to review and provide comments and feedback on the draft HCSI Action Plan after the Summit using an online comment form ([click here](#) to access the action plan, and [click here](#) to access the online comment form). The comment period was extended to

November 11, 2020. Further comments and feedback can be given at the HCCC Board of Directors meeting on Wednesday, November 18, 2020 from 1:00-4:00 PM via Zoom. [Click here](#) to view HCCC's event calendar for details.

HCCC staff will review comments received and present feedback to our Board of Directors at their November 18<sup>th</sup> meeting. With the guidance and direction from our Board, we will make needed revisions to the draft plan and decide how to address any major concerns or questions that come from the comments we receive. The final action plan will be reviewed and approved by the Board at their December 16, 2020 meeting. At their November meeting, the Board will also decide how to broadly spend HCCC's initial implementation funds that will jumpstart implementation of the HCSI Action Plan. HCCC staff will create and distribute an RFP to solicit project proposals based on these Board guidelines, and a subgroup of the HCSI Workgroup will meet to review received proposals and make recommendations for funding in mid-December or early-January 2021. The final funding decision for initial HCSI implementation funds will be made by the HCCC Board at their January 20, 2021 meeting. HCCC staff will then contract with the selected project(s) and start implementation in February 2021. Updates will be posted on the HCCC website.

### **Adjourn**

The meeting adjourned at 3:28 PM.