



**DEPARTMENT OF
NATURAL RESOURCES**

**OFFICE OF THE
COMMISSIONER OF PUBLIC LANDS**
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November 8th, 2024

The Honorable Bernard Dean
Chief Clerk of the House
338B Legislative Building
Olympia, WA 98504

The Honorable Sarah Bannister
Secretary of the Senate
312 Legislative Building
Olympia, WA 98504

Dear Chief Clerk Dean and Secretary Bannister:

Please accept the enclosed 2024 Biennial Report to the Legislature on the Statewide Kelp Forest and Eelgrass Meadow Health and Conservation Plan, submitted on behalf of Department of Natural Resources (DNR), as required in RCW 79.135.440. The statute directs DNR to create a statewide Kelp Forest and Eelgrass Meadow Health and Conservation Plan that endeavors to conserve and recover at least 10,000 acres of native kelp forests and eelgrass meadows by the year 2040.

The statute also directed DNR to submit several reports to the Legislature and the Office of Financial Management as part of implementing the new law (2SSB 5619). In 2022, DNR submitted the community engagement plan and development schedule of the conservation plan. In 2023, the statute directed DNR to report on the finalized Native Kelp Forest and Eelgrass Meadow Health and Conservation Plan. The report included a map of priority areas based on collaborative development criteria, list of potential tools and actions for conservation and restoration, and a monitoring plan based on identified success measures.

For 2024 and going forward, DNR is required to provide ongoing biennial reports that include updates on adaptive management of the plan, monitoring of priority areas and findings, updated maps, distribution and trends, success measures, community engagement, and tribal consultation. Enclosed is the first of the biennial reports.

Should you have any questions, please contact me at 360-486-3469 or Brian.Considine@dnr.wa.gov.

Sincerely,

Brian Considine
Legislative Director
Office of the Commissioner of Public Lands

Enclosure: Legislative Report – 2024 Statewide Kelp Forest and Eelgrass Meadow Health and Conservation Plan

cc: Members of the Senate Agriculture, Water, Natural Resources, and Parks Committee
Members of the House Rural Development, Agriculture & Natural Resources Committee
Members of the Senate Ways and Means Committee
Members of the House Appropriations Committee
Office of Financial Management

2024 Biennial Report to the Legislature on the Statewide Kelp Forest and Eelgrass Meadow Health and Conservation Plan

RCW 79.135.440

Prepared by
Washington State Department of Natural Resources
Office of the Commissioner of Public Lands, Hilary Franz
December 1st, 2024



WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

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EXECUTIVE SUMMARY

RCW 79.135.440 requires the Washington Department of Natural Resources (DNR) to report biennially to the legislature the status of the Statewide Kelp and Eelgrass Health and Conservation Plan (hereafter referred to as “the Plan”). Within the Plan, DNR produced a framework to identify at least 10,000 acres of priority kelp and eelgrass habitat for conservation and recovery actions by 2040, beginning with three pilot sub-basins: the Eastern Strait of Juan de Fuca, Grays Harbor, and South Puget Sound.

This report, the first of regular biennial reports, required by the legislature on the status of the Plan, provides updates on implementation within these pilot sub-basins, including:

- updated maps of status and trends statewide for kelp and eelgrass;
- an updated list summarizing potential stressors, prioritized areas, and corresponding coordinated actions and success measures;
- an update on the number of acres of native kelp forests and eelgrass meadows conserved;
- an update on consultation with federally recognized Tribal nations; and
- an update on the department's community engagement plan or plans developed under RCW [70A.02.050](#).

This report also includes an update to the implementation performance metrics described in the Kelp and Eelgrass Health and Conservation Monitoring Plan (hereafter referred to as “the Monitoring Plan”), submitted in fulfillment of the RCW 79.135.440 requirement for DNR to develop a Monitoring Plan as a companion for the Plan. The performance metrics are meant to track overall performance and implementation of the Plan, including statewide kelp and eelgrass habitat distribution, trends, and environmental conditions, as well as engagement and partnership, with a particular focus on equity and environmental justice.

Funding supporting the Plan has enabled DNR to expand monitoring of floating kelp statewide through expansion of aerial imagery to include the San Juan Islands, Whidbey Basin, Tacoma Narrows, nearly all north Puget Sound, parts of central Puget Sound, and Admiralty Inlet. The funding has supported two critical site-specific studies that advance DNR's monitoring approach statewide. One project expands drone surveys that better monitor smaller and sparse kelp beds compared to aerial surveys. Additionally, the funding has supported DNR to continue to monitor long-term sites in South Puget Sound and Central Puget Sound Sub-basins.

In the first year since the Plan was submitted to the legislature, DNR has made significant progress towards Plan performance metrics. DNR has, along with Tribal co-stewards and local partners, **identified at approximately 5,500 acres of priority kelp and eelgrass habitat:** the Kelp and Eelgrass Priority Area - Squaxin Island in the South Puget Sound Sub-basin and the Kelp and Eelgrass Priority Area - Elwha Unit in the Eastern Strait of Juan de Fuca Sub-basin.

Stewardship planning for both Kelp and Eelgrass Priority Areas, the Squaxin Island and Elwha Unit, will continue into the winter of 2024–2025, as well as continued outreach in South Puget Sound and Grays Harbor Sub-basins to identify additional priority kelp and eelgrass habitat.

The law also required DNR to develop a companion Monitoring Plan to track implementation and progress of the Plan. The Monitoring Plan outlines a set of performance metrics to track overall performance and implementation of the Plan, which includes statewide kelp and eelgrass habitat distribution, trends, and environmental conditions, as well as engagement and partnership, with a particular focus on equity and environmental justice.

REPORTING REQUIREMENTS

This report, the first of regular biennial reports required by the legislature on the status of the Plan, provides updates on implementation within these pilot sub-basins, including:

- an updated map of status and trends for kelp and eelgrass distributions (see **Statewide Monitoring Distribution and Trends** - page 5);
- an updated list summarizing potential stressors, prioritized areas, and corresponding coordinated actions and success measures (see **Performance Metric Progress** - page 8, and **Appendix B. Elwha Stressor and Action Workshop Summary** - page 20);
- an update on the number of acres of native kelp forests and eelgrass meadows conserved (see **Performance Metric Progress** -page 8);
- an update on consultation with federally recognized Tribal nations (see **Tribal Consultation and Engagement** - page 17); and
- an update on the department's community engagement plan or plans developed under RCW [70A.02.050](#) (see **Appendix A. Sub-basin Engagement Plan** - page 19).

STATEWIDE MONITORING DISTRIBUTION AND TRENDS

The law requires DNR to provide an update on distribution and trends of kelp and eelgrass statewide. DNR's statewide monitoring program has core work sites for floating kelp and eelgrass, some of which have over 30 years of data. Additionally, DNR has identified as a key implementation performance metric to maintain or expand current monitoring efforts of kelp and eelgrass distribution. This section outlines the status and trends for kelp and eelgrass statewide, along with a description of additional DNR monitoring enabled by funding for RCW 79.135.440 "Native kelp forest and eelgrass meadow health and conservation plan – Reports."

Kelp and Eelgrass Plan Funding Supports Vital Kelp and Eelgrass Data to DNR and Partners

Funding for the Plan as signed into law (RCW 79.135.440) in 2022 has enabled DNR to expand our core work sites for floating kelp, expanding the coverage of aerial imagery from the coast and Strait of Juan de Fuca to include the San Juan Islands, Whidbey Basin, Tacoma Narrows, nearly all of north Puget Sound, parts of central Puget Sound, and Admiralty Inlet.

The funding has supported two critical site-specific studies that advance DNR's monitoring approach statewide. One project expands drone surveys that better monitor smaller and sparse kelp beds compared to aerial surveys (Cowdrey and Claar, 2024). Additionally, the funding has supported DNR to continue to monitor long-term sites in South Puget Sound and Central Puget Sound Sub-basins (Ledbetter and Berry, 2024).

DNR has also continued to monitor statewide eelgrass core monitoring sites. Grant funding enabled DNR to implement more intensive surveys within the Snohomish Watershed and DNR will be continuing these intensive surveys in King County (Christiaen et al., 2022). DNR is also expanding

our understanding of the deep edge dynamics of eelgrass through a grant-funded project in the San Juan Islands.

While our understanding of the distribution and trends of understory kelp is still a critical data gap, DNR has initiated a project to expand eelgrass surveys to include understory kelp. This work is limited by funding and capacity to process the data (see **Gaps and Needs**).

Floating Kelp Distribution and Trends

DNR has updated the [floating kelp bed area indicator report](#) in 2024 to include 2022 monitoring data. The update does not indicate a change in sub-basin status but does include some changes in status at specific monitoring sites. The [Floating Kelp Forest Indicator](#) website and interactive map will be updated annually to reflect additional monitoring data.

Although a little less than one-half of floating kelp locations in Washington are still classified as stable, the impact of multiple stressors such as climate change, heatwaves, nutrient imbalances, and urbanization warrant caution and prompt additional research.



Photo: Kayak surveys of a DNR core monitoring site for floating kelp. To measure the perimeter of the kelp bed, staff use GPS devices as they paddle around the edge of the kelp bed.

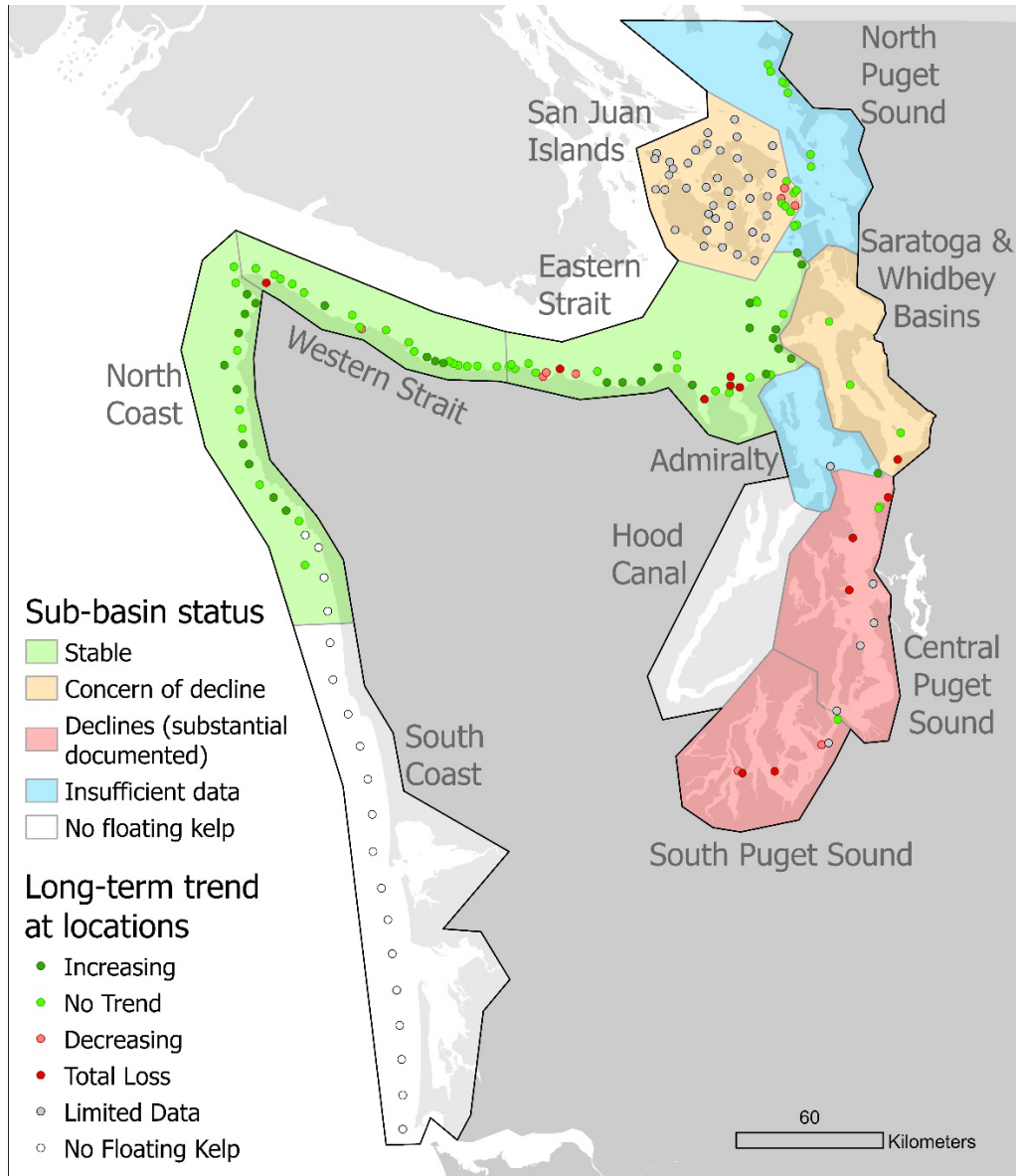


Figure 2. Updated floating kelp trends statewide. (Washington Department of Natural Resources, 2024)

Additionally, supported by RCW 79.135.440 funding for the Plan, DNR has released an updated report on kelp trends in central and south Puget Sound (Ledbetter and Berry, 2024). Although the long-term kayak monitoring of floating kelp in South and Central Puget Sound Sub-basins are dominated by severe declines, stability and/or increases were common over recent years (Ledbetter and Berry, 2024).

Eelgrass Distribution and Trends

DNR monitors submerged aquatic vegetation annually and publishes updated monitoring data on the [Seagrass Monitoring Viewer](#). Eelgrass is found throughout greater Puget Sound, including along some of the most developed shorelines in the region. Eelgrass is mostly absent in Dyes Inlet, Liberty Bay, and the southernmost inlets of south Puget Sound. The largest eelgrass beds in greater Puget Sound are in Padilla Bay and Samish Bay. Together, these beds account for about 20% of eelgrass in greater Puget Sound.

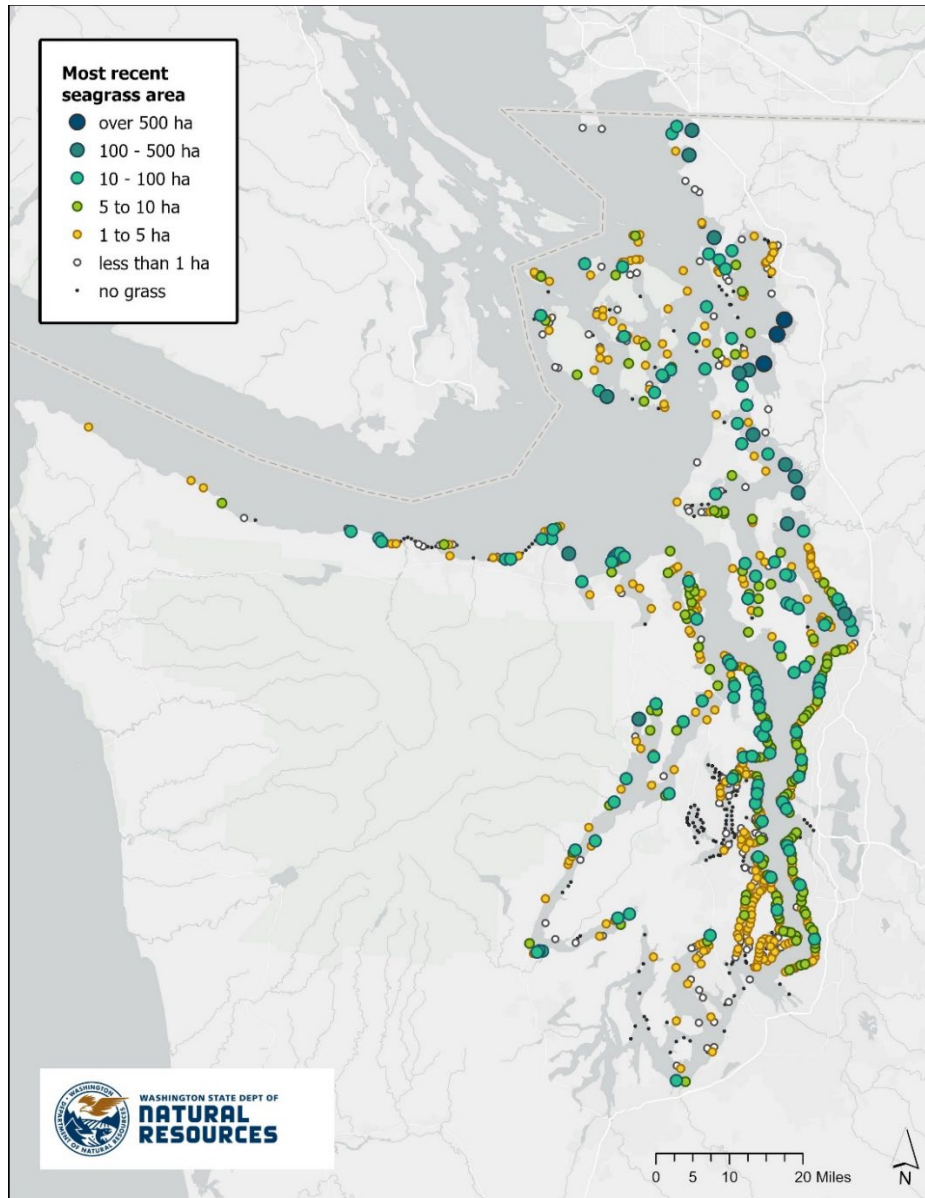


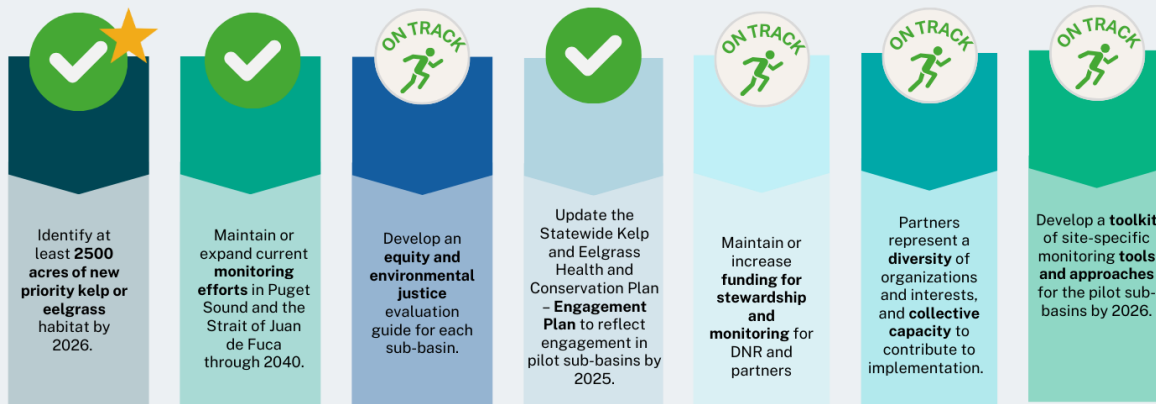
Figure 3. This map shows the most current estimate of eelgrass area in hectares (ha) at all sites sampled by DNR’s monitoring program between 2000 and 2023. Darker colors and larger symbols indicate the presence of larger eelgrass beds. Absence of a symbol indicates no data, not the absence of seagrass.

PLAN IMPLEMENTATION PROGRESS - PERFORMANCE METRICS

Plan implementation performance metrics as described in the Monitoring Plan focus on DNR-led efforts to understand kelp and eelgrass habitat distribution, trends, and environmental conditions, as well as to foster outreach, engagement, and collaboration. Status updates on the performance metrics identified in the Monitoring Plan and relevant to this report are described below (Figure 4).

STATEWIDE PERFORMANCE METRICS

2024-2026 GOALS




 DNR has identified approximately **5,500 acres of kelp and eelgrass habitat** as priority habitat contributing to the 10,000 acres goal. These acres include priority habitat in the South Puget Sound sub-basin and the Eastern Strait of Juan de Fuca.

Figure 4: Performance metrics from the Monitoring Plan for 2024–2026 period are summarized above, with green check marks indicating those which are completed, and a green human figure representing those which are on track but not yet completed. A gold star highlights DNR’s acreage metric which has exceeded the goal of the Monitoring Plan.

Kelp and Eelgrass Habitat Distribution, Trends, and Environmental Conditions



Identify at least 2,500 acres of new priority kelp or eelgrass habitat by 2026.

DNR has identified approximately 5,500 acres of kelp and eelgrass habitat as priority habitat contributing to the 10,000 acres goal. These acres include priority habitat in the South Puget Sound Sub-basin and the Eastern Strait of Juan de Fuca.



Maintain or expand current monitoring efforts in Puget Sound and the Strait of Juan de Fuca through 2040.

DNR has completed core monitoring sites for eelgrass and kelp monitoring. Additional information is provided in “Statewide Monitoring Distribution and Trends” (page 6).

Engagement and Partnership Metrics



Develop an equity and environmental justice evaluation guide for each sub-basin.

DNR is working with DNR’s Office of Equity and Environmental Justice team to understand and evaluate the impacts of stressor mitigation measures.



Update the Statewide Kelp and Eelgrass Health and Conservation Plan - Engagement Plan to reflect engagement in pilot sub-basins by 2025 in collaboration with community and Tribal partners.

DNR has updated the Engagement Plan to include sub-basin engagement through 2025 (see **Appendix A**).

Stewardship Plans and Metrics



Maintain or increase funding for stewardship and monitoring for DNR and partners.

DNR has worked with partners to submit a \$3 million congressionally directed funding request for implementation of kelp and eelgrass recovery. Given an uncertain state funding landscape in 2025, DNR is seeking maintenance level funding in the 2025 legislative session. DNR will continue to identify additional funding opportunities for stewardship and monitoring for DNR and partners.



Partners represent a diversity of organizations and interests, and collective capacity to contribute to implementation.

Statewide progress to date includes one-on-one staff level collaboration with three Tribes and outreach to five additional Tribes for 2024–2025 collaboration opportunities. Additionally, DNR held an in-person and virtual open house where representatives of local organizations, community members, and state and federal agencies attended to provide feedback on the Eastern Strait of Juan de Fuca draft priority areas.

Site-Specific Monitoring



Develop a toolkit of site-specific monitoring tools and approaches for the pilot sub-basins by 2026.

DNR is working internally on drafting the toolkit for site specific monitoring to be deployed before 2026.

PLAN IMPLEMENTATION PROGRESS - PILOT SUB-BASINS

Following the submission of the Plan in 2023, DNR began refining the prioritization framework with additional details to provide a clear roadmap to site selection and stewardship implementation, as seen below (Figure 5).

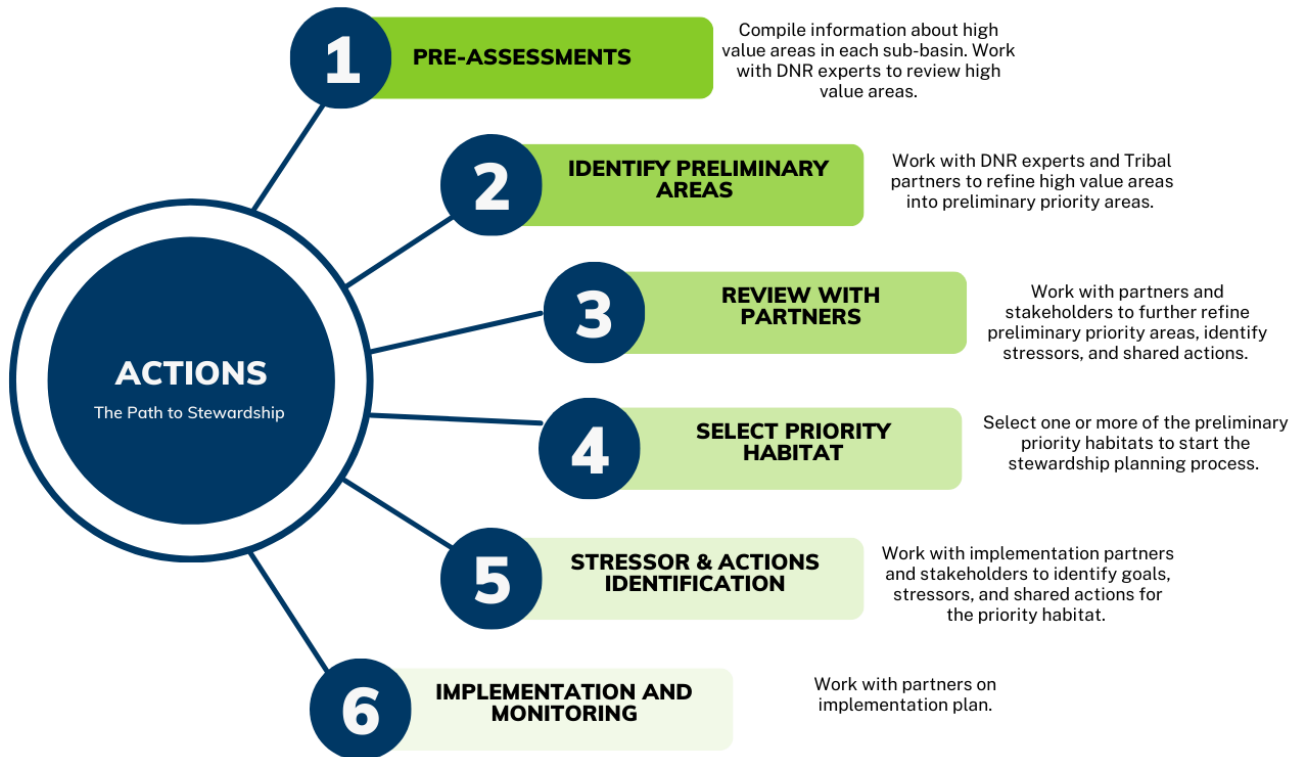


Figure 5: DNR's framework for selecting priority habitats within a sub-basin outlines six collaborative steps, which are currently in practice in the three pilot sub-basins.

Using this framework, DNR has identified, with Tribal and local partners, two kelp and eelgrass priority areas, totaling approximately 5,500 acres. In 2025, DNR will develop stewardship and action plans for these priority areas and may identify additional priority areas in the pilot sub-basins.

South Puget Sound Sub-basin

The kelp bed off the southeastern tip of Squaxin Island has very high Tribal importance as well as high ecological, economic, and social-cultural value. The dramatic losses observed at this kelp bed signal an emergency for Puget Sound kelp. Because of the urgency and importance of this kelp bed, in partnership with the Squaxin Island Tribe, a kelp priority area of approximately 500 acres has been established near the southern point of Squaxin Island and around Brisco Point (Figure 6).

This kelp bed represents both a unique need and opportunity for kelp recovery in Washington. The [Squaxin Island Tribe and DNR have committed](#) to develop a jointly managed kelp protection area surrounding the Squaxin Island Kelp bed. This commitment was memorialized in a letter of intent between the parties.

DNR-Squaxin Island Tribe Partnership

To support the health of the kelp bed, the Squaxin Island Tribe and DNR have formalized a partnership with the intent of co-stewarding, supporting and advancing restoration and recovery of this important kelp bed.

DNR will endeavor to:

- Withdraw the state-owned bed lands within the priority area (Figure 6) from future leasing incompatible with kelp and eelgrass conservation and recovery;
- Pursue additional funding and capacity to continue or expand monitoring and research of the bed; and
- Identify and pursue opportunities for continued restoration and recovery of state lands contributing to the health and conservation of the kelp bed.

The Squaxin Island Tribe will endeavor to:

- Protect the kelp and bed lands located on Tribal land; and
- Identify and pursue opportunities to continue restoration and recovery efforts.

In collaboration, both DNR and the Squaxin Island Tribe will endeavor to:

- Identify joint activities to mitigate or reduce stressors on the kelp bed;
- Contribute knowledge and best practices to external parties, where appropriate, toward improved health of the kelp bed, in alignment with the Statewide Kelp and Eelgrass Health and Conservation Plan;
- Pursue opportunities to restore native bull kelp or other marine vegetation where appropriate, seeking relevant technical expertise from third parties if required.

The Squaxin Island Tribe and DNR staff will co-develop stewardship strategies for the Squaxin Island priority area, including improved monitoring, funding, and partnerships to lead to improved health of the kelp bed.



Photo: Squaxin Island Tribe Chairman Kris Peters speaking on the importance of the Squaxin Island kelp bed during the announcement of the DNR-Squaxin Island Tribe partnership to co-steward the kelp bed.

Kelp and Eelgrass Priority Area – Squaxin Island

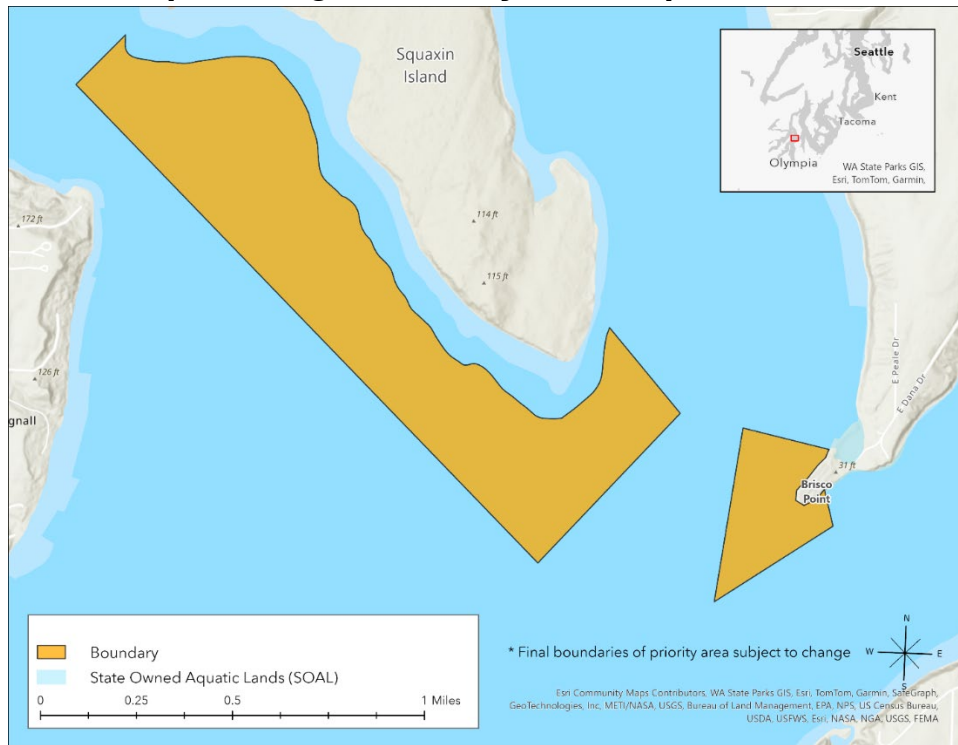


Figure 6. The Kelp and Eelgrass Priority Area - Squaxin Island.

This site represents just the start of identifying priority kelp and eelgrass in the South Puget Sound Sub-basin. DNR intends to continue consultation and collaboration with our Tribal co-stewards in fall 2024, with the goal of having additional community engagement in early 2025 and additional priority area sites selected by summer 2025.

Next Steps

- Squaxin Island Priority Area - stewardship planning
- Additional South Puget Sound preliminary priority area identification and Tribal engagement
- Review preliminary priority areas with partners
- Stressor and action workshop
- Stewardship planning and implementation

Eastern Strait of Juan de Fuca

One priority area has been identified in the Eastern Strait of Juan de Fuca, approximately 5,000 acres contributing to the 10,000+ acre goal. This area, called the “Elwha Unit”, spans from Crescent Bay to Port Angeles.

After one-on-one conversations with DNR’s Tribal co-stewards in the area, subject matter experts, and public input through an open house ([Open House summary](#)), the Elwha Unit was selected as the first priority area in the sub-basin to start stewardship and action planning. The Elwha Unit was identified due to its strong shared values, Tribal priorities, and opportunities for conservation and recovery.

Kelp and Eelgrass Priority Area – Elwha Unit

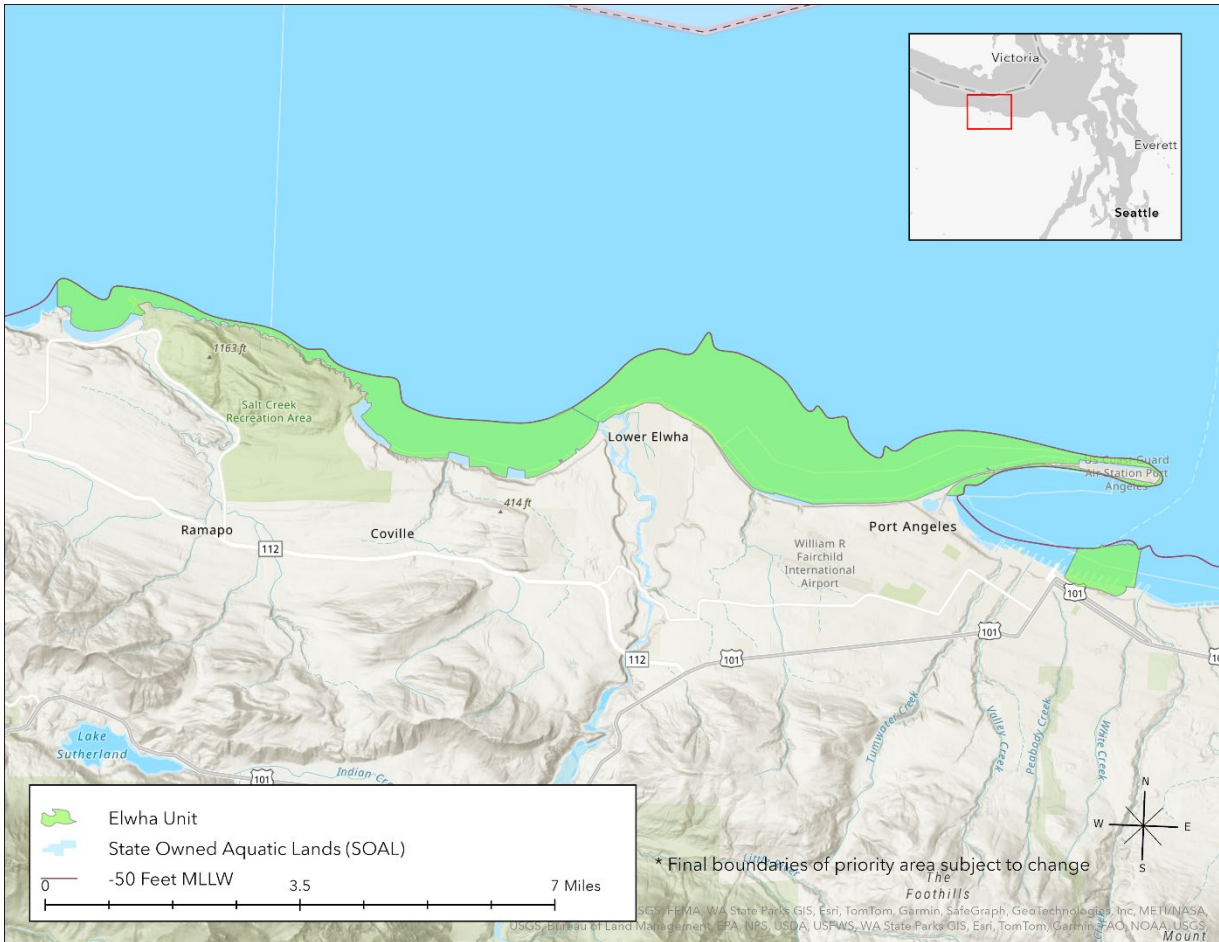


Figure 7: Priority habitat, identified as the green polygon in the map, represents the best opportunity for additive conservation and recovery by DNR in the Eastern Strait of Juan de Fuca Sub-basin.

In October 2024, DNR hosted a workshop with partners to compile key stressors for this priority area, along with developing stewardship and action plans with local partners. While workshop input is still being analyzed, key outcomes from this workshop include:

- Identification of an initial list of stressors for the priority area, including the following identified priority stressors:
 - Stress from shoreline and upland development,
 - Increased water temperature, and
 - Sedimentation and substrate change.
- Discussion on actions to mitigate priority stressors. Additional conversations to develop an action plan will occur over winter 2025.

A summary of the workshop is included in **Appendix B: Elwha Unit Stressor and Action Workshop**. The full detailed summary of the workshop will be available on the Kelp and Eelgrass website.



DNR hosted an Open House in Sequim, WA on July 30, 2024 to discuss preliminary priority areas in the Eastern Strait of Juan de Fuca sub-basin. Right photo: Attendee asking questions during Open House. Center photo: Jamestown S'klallam Tribe Vice Chari Loni Greninger providing remarks at the Open House. Right photo: DNR staff talking with Open House attendees

Next Steps

- Additional Tribal and partner engagement to identify shared actions for priority stressors in the Elwha Unit.
- Elwha Unit action plan development
- Implementation and monitoring

Grays Harbor

In May 2023, DNR met with several oyster growers in Grays Harbor to begin learning more about the context of the harbor and changes in the habitats that they have observed. We have compiled that information and plan on following up in winter 2025 with industry and community members.

In winter 2024-2025, DNR plans to reach out to our Tribal co-stewards for this sub-basin and begin more specific conversations around potential priority habitat. However, there are several information gaps that are preventing us from moving forward quickly in Grays Harbor (see “Priority Gaps and Needs”).

Next Steps

- Preliminary priority area identification and Tribal engagement
- Review preliminary priority areas with partners
- Stressor and action workshop
- Stewardship planning and implementation

PRIORITY GAPS AND NEEDS

Throughout this past year, two main types of plan implementation gaps and needs became apparent that limit our ability to effectively implement the Plan. The identified gaps and needs below represent those identified as most urgent or necessary to complete prioritization in the three pilot sub-basins and complement a more extensive list of gaps and needs identified in the Plan.

Data Gaps

Understanding of seagrass dynamics in Grays Harbor: Limited understanding of the current extent and trends of eelgrass within Grays Harbor creates challenges in identifying preliminary priority areas. Furthermore, shifting sediment dynamics within the harbor also creates a challenge to identify key interventions. A more detailed understanding of the extent, trends, and underlying causes of these trends is required for Plan implementation.

Filling data gaps in floating kelp status and trends: Although the Floating Kelp Vital Sign Indicator provides valuable information regarding areas of stability and loss, there are still large portions of the state that do not have enough data to determine status and trends. Four of the nine sub-basins (San Juan Islands, North Puget Sound, Saratoga Whidbey, and Admiralty Inlet) that contain floating kelp still need additional data to assess status and trends. Synthesis of historical, existing, and newly collected data is needed to support Plan implementation.

Foundational data for structured decision-making: While the current prioritization framework outlines a decision-making process that approximates the intent and analysis of a formal structured decision-making process, DNR lacks foundational quantitative data. For example, social and economic data about the value of kelp and eelgrass at a local scale is largely unavailable, and future work to gather these data in a rigorous fashion should be prioritized. Additional expertise in forecasting alternative protections and interventions would also improve DNR’s ability to implement the Plan.

Funding and Capacity Barriers

Capacity to engage in all three sub-basins: We are currently limited by staff capacity to effectively engage with Tribes, partners, and communities statewide. We intend to engage with all three sub-basins by 2026, and from there move forward with additional sub-basins.

Data synthesis: Currently, we are limited by funding and staff capacity to collect, synthesize, and integrate data into the Floating Kelp Vital Sign Indicator. DNR has multiple data synthesis projects ready but is currently seeking additional funding to support these projects.

Implementation and monitoring: Success of the Plan is dependent on DNR's and our partners' ability to implement actions that promote kelp and eelgrass health. Securing funding for implementing actions, along with limited capacity for monitoring effectiveness of those actions, are on-going challenges.

TRIBAL CONSULTATION AND ENGAGEMENT

We have been working closely with our Tribal co-stewards in the pilot sub-basins as we begin to identify priority kelp and eelgrass habitat. Identified priority areas will reflect Tribally identified values, priorities, and needs, with full Tribal support.

Tribal consultation and engagement during this reporting period was focused on the sub-basin geographies. To date, DNR has had one-on-one staff conversations with five Tribes (Chehalis Tribe, Hoh Tribe, Jamestown S'Klallam Tribe, Lower Elwha Klallam Tribe, and Squaxin Island Tribe) and intends to expand engagement within Grays Harbor and the South Puget Sound Sub-basins as we move forward with the prioritization process.

In addition to sub-basin specific engagement, DNR has also send out a progress briefing to all Washington Tribes in March 2024 outlining the engagement process for 2024 and offering Tribal consultation at any point. The agency also shared an update to Tribal Leaders at the 2024 DNR Tribal Summit in Ocean Shores, WA.

CONCLUSION

In the first year of implementing the Plan, DNR worked closely with our Tribal co-stewards and other partners to identify the initial priority kelp and eelgrass areas, contributing over 5,500 acres of habitat towards the 10,000+ acre goal. The Kelp and Eelgrass Priority Area - Squaxin Island, the first priority area identified, represents both a unique need and opportunity for kelp recovery in Washington. Because of the ecological and social importance of the kelp bed, the dramatic loss signals an emergency for Puget Sound kelp. At the same time, strong relationships between DNR, the Tribe, and other parties as well as long-term investment in the monitoring and health of this bed represent a solid foundation for advancing kelp monitoring and recovery. The Eastern Strait of Juan de Fuca – Elwha Unit represents an opportunity to leverage existing work and momentum in the area to further enhance the health of kelp and eelgrass in the area.

Over the next biennium, DNR will be working closely with our Tribal co-stewards and other partners to develop stewardship and action plans for each priority area identified through the prioritization framework. Additionally, DNR will also continue to refine and integrate more quantitative data into the prioritization framework to support decision making.

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<https://wadnr.maps.arcgis.com/apps/webappviewer/index.html?id=f10864050bf14f57ba751ae53bc061f5>

APPENDIX A. SUB-BASIN ENGAGEMENT PLAN

In 2022, WA DNR submitted to the Washington State Legislature the [Kelp and Eelgrass Engagement Plan](#) (Engagement Plan). The Engagement Plan laid out the roadmap for developing the 2023 Plan.

The general framework outlined in the Engagement Plan is still the cornerstone of sub-basin engagement. It outlines a spectrum of opportunities for participation at varying levels of commitment.

The four pathways for public engagement, from least to most involved, are:

RECEIVE: Receive information on Plan development and finalization.

REVIEW: Review the final Plan and provide feedback.

INFORM: Inform development of the priority areas and other aspects of the Plan during Plan development workshops.

STEER: Steer creation of the Plan in regular meetings with DNR staff.

Tribes will be invited to participate through any of the pathways, as well as through staff-level consultation and additional opportunities for input and review of the draft Plan.

Alongside experts from DNR, tribes and stakeholders will provide iterative input and guidance during development of the Plan to ensure the diverse values and needs surrounding kelp and eelgrass are accurately reflected.

Integration of Updated DNR Engagement and Environmental Justice Policies

Since publishing the 2022 Engagement Plan, DNR has updated several policies related to public engagement and Tribal consultation. These plans include:

- [Department of Natural Resources Tribal Government Consultation Policy](#)
- Implementation of [Environmental Justice Assessments](#), where applicable.
- Updated “*Public Meetings and Community Involvement*” DNR guidance. This policy establishes guidelines to embed equitable community engagement with and equitable participation from members of the public into agency practices for soliciting and receiving public comments.

Sub-basin Engagement Milestones

Milestone	Approximate Date
Tribal consultation	January 2024 – ongoing
Working Group regular meetings	January 2024 – September 2024
Eastern Strait Sub-basin Tribal engagement	March 2024 – on-going
South Puget Sound Sub-basin Tribal engagement	April 2024 – on-going
Kelp and Eelgrass Priority Area - Squaxin Island priority area selected	July 2024
Eastern Strait Sub-basin community workshop	July 2024
Eastern Strait Sub-basin priority area stressor workshop	October 2024
Grays Harbor Sub-basin Tribal engagement	Winter 2025 – on-going
Kelp and Eelgrass Priority Area - Squaxin Island stewardship planning	Winter 2025 – Spring 2025
Eastern Strait priority area stewardship planning	November 2024 – October 2025
Grays Harbor Sub-basin community engagement	Winter 2025 – Spring 2025
South Puget Sound Sub-basin community engagement	Fall 2025-Winter 2026

APPENDIX B. ELWHA UNIT STRESSOR AND ACTION WORKSHOP SUMMARY

On October 30th, DNR hosted a workshop in Port Angeles focused on the Elwha Unit to identify primary stressors and begin to identify potential tools and actions to mitigate these stressors. This three-hour workshop included participants from the Lower Elwha Klallam Tribe, local practitioners, and kelp and eelgrass scientists with local knowledge. The input received from this workshop will be used as the foundation for an action plan for the Elwha Unit in the coming months.

Participant List

Wendel Raymond, Danielle Zitomer, David Trimbach (WDFW); Matt Beirne, Justin Stapleton (Lower Elwha Klallam Tribe); Rebecca Mahan (Clallam County); Jason Lim (Puget Sound Partnership); Jeff Whitty (Northwest Straits Commission); Annie Armstrong (Coastal Watershed Institute); Hilary Hayford (Puget Sound Restoration Fund); Ron Thom (Staff Scientist Emeritus PNNL/Science Advisor for Puget Sound NEP); Tamara Galvan (Feiro Marine Life Center)

DNR staff: Max Showalter, Cynthia Harbison, Cynthia Catton, Rachel Skubel, Bree Turner, Brady Scott, Katalin Plummer

Draft Agenda:

- Introductions and background
 - Review of goals and target outcomes
 - Overview of Plan
 - Overview of DNR monitoring and research
- Identify “most important” stressors
 - Which stressors for this area are “most important”?
 - Are we missing any stressors we should be considering?
 - Why is this stressor important?
- Consider feasibility and action
 - For stressors we've identified as manageable - why? What tools do we have/how do we manage them?
 - Where on the map are these most feasible relevant?
 - How do we reconcile what's feasible and what's important in an action plan?
- Wrap-up and next steps

Stressor Ranking

At the workshop, participants were asked to identify the *most important* stressors in the area, aggregated for both kelp and eelgrass, considering both current and future stressors on marine vegetation. The DNR team facilitated an exercise in which participants were given dot stickers and asked to vote for the five stressors identified as most important. Shoreline and upland development, temperature, and substrate change/benthic sedimentation were the three stressor categories that received the most votes from workshop participants as important.

Ranked list of stressors – based on workshop participant activity and discussion.

1. Shoreline and upland development
2. Temperature

3. Substrate change/benthic sedimentation
4. Contaminants
5. Water clarity
6. Nutrient driven harmful algal blooms
7. Sea level rise
8. Over-water structures
9. Invasive grazers
10. Tied for 10th:
 - Dredge and fill
 - Human harvest
 - In-water construction
 - Propeller wash/boat wake

The following stressors did not receive a vote in the exercise, listed in alphabetical order.

- Algal competition
- Derelict gear/crab pots
- Disease
- Herbivory
- Moorage and anchoring
- Organic matter input
- Salinity
- Storm surge

Priority Stressors

After identification of the most important stressors, participants were split into two groups and asked to choose no more than 4 stressors to consider as priority for action. The groups then worked to develop potential tools or actions to address their chosen stressors within the Elwha Unit.

Priority stressors identified by the two groups included **shoreline and upland development, nutrient run-off, sea level rise, oil spills, and temperature**. The two groups identified potential tools to manage these stressors at the hyper-local and broad scale level, for example identifying potential future no-anchor zones to mitigate physical disturbance or promoting and promoting ground water recharge in pursuit of lower stream temperatures.

Full notes from the workshop will be made available on the DNR Kelp and Eelgrass webpage.