Pew

November 16, 2026

Washington Department of Ecology
Shoreline Management Act Rulemaking Team
300 Desmond Drive SE
Lacey, WA 98504-7600

Re: Comments on Shoreline Management Act Rule Amendments, September 2, 2026, CR-102 Proposal

Dear Ms. Rothwell and the Shoreline Management Act Rulemaking Team:

The Pew Charitable Trusts ("Pew") appreciates the opportunity to comment on the Washington Department of Ecology's (Ecology) September 2, 2026 proposed amendments to the rules implementing the Shoreline Management Act (SMA) ("CR-102 proposal" or "proposed rules"). These comments respond to the revisions made to Ecology's June 16, 2025 draft rules and build upon the comments Pew submitted on August 15, 2025.

As before, we evaluated the proposed amendments against Pew's five "Climate Ready Management Principles":

I. Climate Impact Evaluation

Responsiveness to climate change requires the evaluation of present and future climate impacts on communities and natural resources, as well as an understanding of the underlying vulnerabilities of those communities and ecosystems. Climate impact evaluation helps local governments and communities plan for multiple outcomes through a suite of approaches, including climate scenario planning, predictive modeling, vulnerability assessments, Indigenous knowledge, and identification and prioritization of management assets.[1]

II. Climate-Responsive Goals and Strategies

Shoreline master programs (SMPs) must set specific goals and strategies, and these should be linked directly to climate impact evaluations and be based on an adaptive management framework that addresses climate change impacts and related stressors (e.g., sea level rise, coastal squeeze, more frequent and severe storms, flooding, drought, and extreme heat). SMPs should include policy language that requires managers to

[1] National Park Service. (2021). Planning for a Changing Climate: Climate-Smart Planning and Management in the National Park Service. National Park Service. Fort Collins, CO.

account for uncertainty and respond to rapidly changing conditions with tools like sunset and sunrise clauses, triggers, and benchmarks. Overall, strategies should be supported by science and traditional and local knowledge and should prioritize the use of nature-based solutions that protect, conserve, and restore natural or modified systems.[2] Goals should be timebound and measurable and aim to minimize the carbon footprint of actions and projects.

III. Systematic Monitoring

Systematic monitoring of climate indicators and metrics is critical for understanding how climate change is impacting an area over time. Systematic monitoring of physical metrics, such as sea level rise, rainfall, temperature, water pollution levels, and biological indicators, including the status and distribution of key species and habitats (e.g., kelp and eelgrass), is essential for designing threshold and benchmark-based policy and processes. By standardizing monitoring methodologies, establishing regular and ecologically relevant schedules and designing protocols within the broader landscape or watershed context, planners can better track management actions, evaluate effectiveness, and determine what adjustments they should make to improve outcomes.

IV. Adaptive Management

In the face of uncertainty and change, an adaptive management framework enables planners and managers to iteratively plan and implement strategies and actions that provide benefits across a range of possible future conditions and scenarios. An adaptive management framework or process includes implementing flexible implementation pathways, managing observed trade-offs, avoiding maladaptation, and adjusting approaches based on evaluation of new information and understanding from scenario planning, systematic monitoring (e.g., research or data analysis), Indigenous or local knowledge, and other variables and observations.[3] As climate change impacts grow in pace, scale, and severity, an adaptive management approach will be critical for maintaining community and ecosystem resilience.

V. Collaborative Planning with Communities

Collaborative planning and engagement, particularly with Tribal, Indigenous, and other climate vulnerable communities, is essential to any effective climate-response plan or strategy. Gathering such input and incorporating it into management and policy design ensures that actions are place-based and serve local needs and are therefore supported. At the outset of planning, planners and managers should design and establish meaningful

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[2] Reguero, B.G., Beck, M.W., Bresch, D.N., Calil, J., & Meliane, I. (2018). Comparing the cost effectiveness of nature-based and coastal adaptation: A case study from the Gulf Coast of the United States. *PLoS ONE* 13(4): e0192132. https://doi.org/10.1371/journal.pone.0192132.

[3] Stein, B.A., P. Glick, N. Edelson, and A. Staudt (eds.). (2014). Climate-Smart Conservation: Putting Adaptation Principles into Practice. National Wildlife Federation, Washington, D.C.

outreach, engagement, and notification processes for Tribes and climate vulnerable communities, as well as consent frameworks to guide and ensure a collaborative and inclusive planning process takes place. Research shows that when Indigenous peoples and local communities occupy a central role in decision making and co-management or governance, conservation and stewardship outcomes are more positive and durable.[4]

A full copy of these principles was attached to our August 15, 2025 comments.

General Comments

Pew continues to support Ecology's effort to incorporate climate ready management principles into its SMA rules. Taken as a whole, the CR-102 proposal is a significant improvement over the existing rules, and in some ways goes beyond what HB 1181 strictly required. In particular, the proposal:

- Strengthens the no net loss standard. The CR-102 proposal keeps the framework we supported in 2025, now consolidated in new WAC 173-26-206, and strengthens it by directing local governments to protect shoreline ecological functions as they adapt to sea level rise, WAC 173-26-186(8)(f). It also extends vegetation conservation throughout shoreline jurisdiction and bars clearing of native vegetation within required buffers, WAC 173-26-221(6).

- Requires critical areas protection to be written directly into master programs, WAC 173-26-221(2)(c).

- Establishes nature-based stabilization as a distinct, preferred category for shoreline stabilization. The proposal also clarifies that stabilization is not an appropriate response to flooding, and it bars new permanent stabilization as an emergency action or through after-the-fact permits. WAC 173-26-231(4).

- Builds accountability into implementation by requiring local governments to track all shoreline authorizations, including exemptions, and evaluate at each periodic review whether master programs are working as intended. WAC 173-27-195; WAC 173-26-090(2)(b)(iii)(D). Exempt development must be consistent with the SMA and the master program, and enforcement procedures are clarified.

- Ensures the use of statewide hazard and asset data, WAC 173-26-246(6), and establishes minimum development standards for areas exposed to sea level rise

[4] Dawson, N. M., Coolsaet, B., Sterling, E. J., Loveridge, R., Gross-Camp, N. D., Wongbusarakum, S., Sangha, K. K., Scherl, L. M., Phan, H. P., Zafra-Calvo, N., Lavey, W. G., Byakagaba, P., Idrobo, C. J., Chenet, A., Bennett, N. J., Mansourian, S., & Rosado-May, F. J. (2021). The role of Indigenous peoples and local communities in effective and equitable conservation. Ecology and Society, 26(3), Article 19. https://doi.org/10.5751/ES-12625-260319.

hazards, although, as discussed below, additional measures are necessary to ensure effective project-level implementation. WAC 173-26-246(9)(c).

At the same time, several changes made to the 2025 draft weaken the proposal's ability to achieve the intent of HB 1181. In particular:

- Several provisions that were mandatory in the 2025 draft are now left to local discretion, including the designation of sea level rise hazard areas, WAC 173-26-246(9)(a), and channel migration zones, WAC 173-26-221(2)(e)(vi).

- There is no protection for areas where habitat must move landward. The CR-102 proposal asks local governments to identify where development should be avoided so habitat can shift landward, WAC 173-26-246(7)(c)(ii), but there is no minimum standard requiring master programs to protect these areas from development or armoring.

- The proposal does not provide a sufficient framework for determining whether no net loss is actually being achieved. The CR-102 proposal drops the 2025 draft's five-year minimum for monitoring compensatory mitigation and the ten-year evaluation of cumulative impacts, leaving no reliable way to tell if the no net loss standard has been met.[5]

- The hazards that drive sea level rise planning are defined too narrowly. The proposal's lists of sea level rise hazards omit wave action, and the rules do not define coastal flooding to include groundwater rise, stormwater, and river and stream flows, all of which compound coastal flooding in Washington. WAC 173-26-246(4)(g)(ii) and (6)(a).

Finally, because Ecology did not respond to comments on the 2025 informal draft, we ask that the concise explanatory statement required by RCW 34.05.325(6) explain the reasons for the changes made since that draft, particularly those discussed above and in our specific comments below.

Specific Comments Based On Pew's Previous Recommendations

Recommendation 1: Ensure that Sea Level Rise Planning Reaches All Exposed Shorelines and Keeps Pace With Changing Conditions

Our 2025 comments recommended that all local governments with tidally influenced shorelines engage in sea level rise planning, unless Ecology grants the local government an exception or modification. We also provided recommendations on the conditions that should provide the basis for an exception or modification.

[5] 2025 draft rules at WAC 173-26-226(2)(c)(iv)-(v).

We are pleased that the CR-102 proposal incorporates, in large part, this recommendation. The proposal now explicitly identifies the counties, cities, and towns that are required to plan for sea level rise and increased storm severity, and it deletes the exceptions subsection. WAC 173-26-246(2). The proposed rules, however, do not identify the criteria Ecology used to determine which local governments are listed, nor do they provide a mechanism for periodically reviewing and updating the list of local governments that are required to engage in sea level rise planning. As drafted, a change to this list of local governments would require a new rulemaking.

Pew's climate ready management principles call for local governments to evaluate both present and future impacts (Principle I) and ensure adjustments can be made as conditions change (Principle IV). It is possible that our rapidly changing climate will expose new areas to sea level rise and storm severity, and the rules should contain provisions to bring these new areas into the planning framework of WAC 173-26-246.

Pew therefore recommends the targeted revisions shown in Appendix A. The proposed changes would retain the named list but extend the requirements of WAC 173-26-246 to any other county, city, or town with shorelines on tidally influenced waters that Ecology's hazard data show to be exposed to sea level rise hazards under the long-term scenario. They would also direct Ecology to review the list before each periodic review cycle using current projections and hazard data, to publish the criteria it uses, and to notify newly covered jurisdictions at least two years before their periodic review deadlines. Pew further asks that the concise explanatory statement required by RCW 34.05.325 describe the method Ecology used to select the listed jurisdictions.

Recommendation 2: Ensure Sea Level Rise Hazard Information Is Scientifically Robust, Transparent, and Appropriate

Consistent with Pew's climate ready management principles regarding predictive modeling and vulnerability assessments, Pew previously recommended that Ecology establish minimum technical and validation standards for sea level rise projections and hazard modeling, emphasizing spatial resolution, validation against observed conditions, documentation of model limitations and uncertainty, and technical review. The goal of these recommendations was to ensure robust and consistent information for the exposure and vulnerability analyses required by subsection (7) of WAC 173-26-246 and the identification and regulation of areas projected to be exposed to sea level rise hazards under subsection (9).

The CR-102 proposal takes a different approach from the 2025 draft, placing primary responsibility on Ecology to give local governments the minimum necessary spatial data on current sea level rise hazards and medium- and long-term future sea level rise scenarios. WAC 173-26-246(6). Local governments must use that inventory in assessing shoreline exposure, characterizing vulnerability, and evaluating future development.

Pew supports this centralized approach because it can promote consistency among jurisdictions and reduce the burdens on local governments. At the same time, the CR-102 proposal does not expressly require Ecology to share important information concerning the technical basis and limitations of the spatial data it provides. Nor does the proposal establish comparable documentation requirements when a local government relies on other hazard information.

Accordingly, Pew recommends the targeted revisions shown in Appendix B, which would not require local governments to perform their own modeling or impose a separate technical-review process. Instead, these changes would provide the transparency and minimum technical safeguards needed to understand and appropriately apply the hazard information on which the remainder of the sea level rise planning framework depends.

Recommendation 3: Establish Measurable Goals

In our prior comments, Pew recommended requiring specific, measurable adaptation goals, performance indicators, and benchmarks tied to sea level rise vulnerabilities.

The CR-102 proposal strengthens the connection between sea level rise information and shoreline management. Local governments must inventory sea level rise hazards and shoreline assets, assess exposure and vulnerability, analyze risks to future development, and develop policies and regulations responsive to those findings. The proposed rules also use the 10-year SMP cycle for adaptive management, whereby sea level rise policies and regulations are implemented, monitored, evaluated, and adjusted as necessary. But still missing is a requirement to identify what those policies and regulations are intended to accomplish and how progress toward those outcomes will be evaluated.

Pew therefore recommends the revisions to subsections (8) and (3)(b) of WAC 173-26-246 set out in Appendix C. The proposed language would require SMP policies to establish adaptation goals addressing the priority vulnerabilities identified under subsection (7)(b), while allowing those goals to be expressed as desired outcomes and, where appropriate, tied to Ecology's medium- and long-term sea level rise scenarios. Goals would be paired with indicators drawn from information the rules already require local governments to collect, including hazard inventories, vulnerability assessments, and project tracking under WAC 173-27-195. The inventory and vulnerability assessment would serve as the baseline, and local governments would evaluate and document progress during subsequent periodic reviews.

These revisions would give practical effect to the CR-102 proposal's adaptive-management framework without requiring a new planning process, separate monitoring program, or interim review cycle.

Recommendation 4: Strengthen the Monitoring Framework

Climate-resilient management requires monitoring to provide information about changing environmental conditions and the effectiveness of management actions. Pew's prior comments recommended a monitoring framework to track both physical conditions and implementation of sea level rise policies.

The CR-102 proposal partly incorporates this recommendation. Proposed WAC 173-26-246(4)(c) establishes an adaptive-management principle under which Ecology and local governments monitor implementation and use monitoring information to inform future updates, with the periodic-review process providing the regular cycle for evaluation and adjustment. Proposed WAC 173-27-195 also establishes requirements for tracking development authorizations.

Pew recommends revisions that would more clearly connect these existing information sources to sea level rise monitoring and periodic review. These revisions would require Ecology to compile available indicators of changing shoreline conditions from existing state and federal monitoring programs and make that information available for periodic reviews. The revisions would also expand and clarify WAC 173-27-195 tracking for development in areas exposed to sea level rise hazards, including whether projects actually incorporate adaptation measures, relocation or removal, or adaptive-management requirements, and require Ecology periodically to summarize that information. Finally, local governments would be encouraged to identify conditions or new information that could warrant consideration of an SMP amendment before the next periodic review.

The revisions recommended in Appendix D would help make better use of existing monitoring and permitting information so that periodic reviews, and earlier amendments where appropriate, can respond to observed conditions and experience with implementation.

Recommendation 5: Set Triggers and Contingencies for Adaptive Management at Project Level

Pew's climate ready management principles emphasize adaptive management: that climate-responsive strategies should be capable of adjustment as conditions change and new information becomes available.

The CR-102 proposal embraces adaptive management at the programmatic and project levels. In particular, proposed WAC 173-26-246(9)(c)(xi) allows certain shoreline modifications to be designed for projected future conditions or adaptively managed over time. The proposal, however, does not specify what must accompany that adaptive-management approach at the project level.

Pew therefore recommends the revision to WAC 173-26-246(9)(c)(xi) shown in Appendix E. Where a shoreline modification is adaptively managed rather than designed for projected conditions over its lifetime, the authorization should require an adaptive management plan identifying what will be monitored, the conditions that will trigger further action, the contingent actions that will follow, and the responsible party.

This revision would give teeth to the CR-102 proposal's existing adaptive-management option. If adaptive management is relied upon instead of designing initially for projected future conditions, there should be a defined mechanism for determining when adaptation is necessary and what happens when that point is reached. That structure makes adaptive management a workable resilience strategy rather than simply an agreement to revisit a project later. Together with the tracking revisions in Appendix D, which would record whether an authorization includes an adaptive management plan, it would also show Ecology and local governments how often this option is used.

Recommendation 6: Restore Meaningful Engagement With Tribes, Overburdened Communities, and Vulnerable Populations in Sea Level Rise Planning

Pew's climate ready management principles recognize that collaborative planning and engagement, particularly with Tribal, Indigenous, and other climate vulnerable communities, is essential to any effective climate-response plan or strategy. They guide planners – at the outset of planning – to design and establish meaningful outreach, engagement, and notification processes for Tribes and vulnerable communities.

Pew previously expressed strong support for the 2025 draft's section on equitable sea level rise adaptation,[6] which required local governments to seek "meaningful engagement" with Tribes, overburdened communities, and vulnerable populations when conducting or updating sea level rise vulnerability assessments, undertaking sea level rise adaptation planning, and amending master programs. We previously offered recommendations that would strengthen this commitment by defining "meaningful engagement" and adding language that would:

- ensure that plans and processes would be developed with transparency and through early and continual collaboration with Tribes, overburdened communities, and vulnerable populations,
- require that, before work begins, local governments co-develop with Tribes agreed-upon processes, methods, and schedules for communication and coordination,
- ensure local governments document how Tribal priorities are addressed, and
- require a consistent process for outreach to, and removing barriers for, overburdened communities and vulnerable populations.

[6] 2025 draft rules at WAC 173-26-246(5).

The CR-102 proposal does not adopt these recommendations. Instead, it deletes in its entirety the section on equitable sea level rise adaptation. Ecology removed the provisions requiring local governments to undertake “meaningful engagement” with Tribes, overburdened communities, and vulnerable populations in their planning process and deleted the specific steps in the process where such engagement was required.

What remains are policy principles, and those are qualified. Under the CR-102 proposal, adaptation strategies are to be developed in coordination with Tribes only “to the fullest extent practicable," WAC 173-26-246(8)(d), and harms to overburdened communities are to be eliminated, reduced, or mitigated "to the extent possible." WAC 173-26-246(8)(e). WAC 173-26-246 no longer requires engagement with overburdened communities or vulnerable populations, and the term "meaningful engagement" no longer appears in the section.

The CR-102 proposal also deletes the 2025 draft's requirements that a vulnerability assessment align with Tribal priorities and that adaptation strategies reflect community visioning and local priorities. Engagement now rests on general notice and outreach rules that apply to every master program amendment, WAC 173-26-100(1)(g)–(h), and on Ecology's consultation with Tribes, which occurs only after a local submittal is complete, WAC 173-26-120(2)(a). The proposal also removes Tribes from the identification and protection of critical saltwater habitats.[7]

We appreciate that the CR-102 proposal does retain, and in some respects strengthens, certain aspects of the 2025 draft’s equity provisions. For example, the vulnerability characterization must now address the environmental justice dimensions of shoreline vulnerability, including impacts to overburdened communities, vulnerable populations, Tribal nations, and others with cultural or subsistence connections to affected places. WAC 173-26-246(7)(b)(vi). This goes beyond the 2025 draft. The proposal also retains Indigenous knowledge as a source of information, shared with consent, WAC 173-26-246(5)(a)(v)(G); allows Tribes and local governments to agree on how much Tribal information is made public, WAC 173-26-246(6)(d); and incorporates the HEAL Act definitions of overburdened communities, vulnerable populations, and environmental justice, WAC 173-26-246(4)(g)(vi).

The targeted revisions shown in Appendix F would restore the requirement that local governments seek to establish processes and schedules with affected Tribes and seek meaningful engagement with overburdened communities and vulnerable populations throughout the sea level rise planning process. The revisions would also define “meaningful engagement,” restore the Tribal role in scoping the vulnerability characterization, and restore the Tribes’ role in identifying critical saltwater habitats.

[7] Compare 2025 draft rules at WAC 173-26-226(1)(f)(iv)(A)-(B) with CR-102 proposal at WAC 173-26-221(e)(iii)(D).

These revisions do not create a new engagement program; they build on the notice and outreach strategies local governments must already prepare under WAC 173-26-100(1)(g)-(h) and add measures to ensure that engagement occurs when it can still influence the outcome of the process.

Recommendation 7: Kelp and Eelgrass Protection

Pew's climate ready management principles call for strategies that "prioritize the use of nature-based solutions" and "sustain or improve the natural ability of ecosystems to cycle, sequester, and store carbon." They also call for systematic monitoring of biological indicators, "including the status and distribution of key species and habitats (e.g., kelp and eelgrass)." Kelp forests and eelgrass meadows are among Washington's most valuable and most threatened nearshore habitats. Pew previously recommended that Ecology recognize carbon sequestration and storage as a function of shoreline vegetation, name kelp and eelgrass recovery plans alongside salmon recovery plans wherever the guidelines refer to recovery planning, add the Washington State Floating Kelp Indicator to the data used to protect these habitats, and strengthen the direction to update restoration plans at each periodic review.

The CR-102 proposal makes meaningful progress. It adds kelp and eelgrass recovery plans to the plans local governments must integrate when protecting and restoring critical areas, as Pew requested. WAC 173-26-221(2)(b)(iii). It also broadens the definition of “critical saltwater habitat” to seagrass beds, pocket estuaries, lagoons, and low marshes, WAC 173-26-221(2)(e)(iii)(A)(II); requires local governments to map, as well as protect, native kelp and seagrass beds, WAC 173-26-221(2)(e)(iii)(D)(II); extends site inventory requirements to development in or near critical freshwater habitat, WAC 173-26-221(2)(e)(iii)(F)(III); and extends the prohibition on structures intruding into critical saltwater habitat to critical freshwater habitat, WAC 173-26-221(2)(e)(iii)(F)(IV).

However, a number of Pew’s recommendations were not adopted, and provisions we sought to strengthen were removed. The list of shoreline vegetation functions in WAC 173-26-221(6)(c)(iii) still omits carbon sequestration, even though the proposal recognizes the carbon value of wetland buffers, WAC 173-26-221(2)(e)(i)(D). The proposal deletes the 2025 draft’s list of critical area restoration and enhancement measures and instead issues a broad directive to “foster and facilitate” restoration projects. We recommended that master programs prioritize restoration of lost or degraded aquatic habitat, including kelp and eelgrass, but that recommendation was not adopted.

Regarding critical saltwater habitat and mapping, the provision Pew proposed to amend by directing local governments to the Floating Kelp Indicator was replaced by a general direction to “consult with department materials.” WAC 173-26-221(2)(e)(iii)(D)(II). Kelp and eelgrass recovery plans were not added to the information local governments consider at periodic review, WAC 173-26-090(2)(b)(iii)(C)(I), or to the plans they rely on for restoration priorities, WAC 173-26-231(3)(b)(vi)(B). The proposal also deletes the 2025 draft’s provision

encouraging local governments to update restoration plans at each periodic review, including to identify projects with climate resilience co-benefits and to prioritize areas where habitat can migrate landward with sea level rise.[8]

Finally, two provisions could undercut the protection of these habitats. While we appreciate that the proposal prohibits new structures that would intrude into or over critical saltwater habitat, this prohibition does not prevent existing structures from being replaced or expanded over these habitats. WAC 173-26-221(2)(e)(iii)(F)(IV). Additionally, a new general standard provides that master programs "shall allow" new and replacement water-dependent development, such as docks and piers, within critical areas where such development can't be relocated. WAC 173-26-221(2)(c)(viii). Taken together, these provisions could be argued to require approval of structures over kelp and eelgrass beds that the habitat-specific prohibition is meant to prevent.

Pew therefore recommends the targeted revisions shown in Appendix G. These revisions would add carbon sequestration and storage to the list of vegetative functions; direct master program restoration policies to prioritize kelp, seagrass, and habitats that can migrate landward with sea level rise; name the Floating Kelp Indicator as a data source for mapping kelp beds; and add kelp and eelgrass recovery plans to the periodic review and restoration provisions. They would also extend the over-water prohibition to expansions of existing structures, require replacements to avoid or reduce intrusion into these habitats, and clarify that the water-dependent development allowance does not override that prohibition.

Recommendation 8: Restore Project-Level Review in Areas Exposed to Sea Level Rise Hazards

Pew's 2025 comments focused on proposed WAC 173-27-185, which set application requirements for projects in Sea Level Rise Hazard Areas. We noted that this section was "generally positive and needed to achieve the intent of HB 1181," and we recommended that Ecology strengthen it by encouraging local governments to apply its requirements before their master programs are updated, adding criteria for the "low risk" determination that waived certain submittal requirements, and requiring local governments to determine whether a project should be located outside a Sea Level Rise Hazard Area.

The CR-102 proposal moves some of these concepts out of the permitting rules and into the master program guidelines. For example, the 2025 draft's limitation on structures in areas of future inundation is now a required master program prohibition. WAC 173-26-246(9)(c)(i)-(ii). Master programs must also require consideration of sea level rise in "planning, siting, and designing development within areas exposed to sea level rise hazards." WAC 173-26-246(9)(c). In addition, exemption site plans must show projected

[8] 2025 draft rules at WAC 173-26-090(3)(c)(v).

sea level rise hazards, WAC 173-27-040(2)(f)(vi), and conditional uses must be compatible with the site's exposure to sea level rise, WAC 173-27-160(1)(f).

However, the CR-102 proposal deletes WAC 173-27-185 entirely and leaves to each local government the discretion to determine if there should be additional submittal requirements for projects in areas exposed to sea level rise hazards. The proposed rules now state that the local government "should" – not "shall" – specify additional submittal requirements "as necessary." WAC 173-26-246(10).

Under the CR-102 proposal, applicants no longer need to identify projected sea level rise at the site over the life of the project, state the project's expected life, or demonstrate that they have evaluated adaptation alternatives and selected "the most precautionary adaptation alternative that is feasible and applicable."[9] The proposal also appears to create an inconsistency. An application for an exemption must show projected sea level rise hazards on its site plan, but an application for a substantial development permit, conditional use permit, or variance need not. WAC 173-27-180(9).

Pew therefore recommends the revisions shown in Appendix H. Our overarching recommendation is to restore WAC 173-27-185 so applications in areas exposed to sea level rise hazards are required to show the proposed project's overlap with these areas, identify projected sea level rise at the site over the life of the development, state the project's expected life, and demonstrate that the most precautionary feasible adaptation alternative was selected.

Consistent with our 2025 comments, this section should also encourage local governments to apply their requirements before their master programs are amended, limit any waiver to defined low-risk categories, and require the local government to determine whether the development could feasibly be located outside the exposed area.

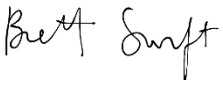
We also recommend conforming changes to WAC 173-26-246(10) and 173-27-180(9) and (12).

Conclusion

Thank you for the opportunity to provide comments on the CR-102 proposal. Pew appreciates Ecology's consideration of our comments on the June 16, 2025 draft and offers these comments in an effort to further strengthen the CR-102 proposal and more completely effectuate the intent and substance of HB 1181. We look forward to continued collaboration with Ecology and welcome the opportunity to discuss these comments with your staff.

[9] 2025 draft rules at WAC 173-27-185(3)(f).

Sincerely,



Brett Swift
Project Director, U.S. Conservation
The Pew Charitable Trusts

Appendix A:
Redlines for Recommendation 1
*(*Ensure that Sea Level Rise Planning Reaches All Exposed Shorelines and Keeps Pace With Changing Conditions)

We recommend retaining the contents of WAC 173-26-246(2) as subsection (a), and adding the following as new subsections (b) and (c):

> (b) A local government not listed in (a) of this section is also subject to the requirements of this subsection if it has tidally influenced shorelines and the department's sea level rise hazard data under subsection (6)(a)(ii) of this section show that a portion of those shorelines will be exposed to sea level rise hazards under the long-term sea level rise scenario. The long-term sea level rise scenario is defined in subsection (5)(b)(iii) of this section.
>
> (c) Before each periodic review cycle, the department shall review the list in subsection (a) using the most current sea level rise projections and the hazard data described in subsection (6)(a)(ii) of this section. The department shall publish the criteria it used and shall notify each local government newly subject to this section at least two years before its periodic review deadline.

Appendix B:
Redlines for Recommendation 2
(Ensure Sea Level Rise Hazard Information Is Scientifically Robust, Transparent, and Appropriate)

1. *Documentation of sea-level rise information relied upon*. Edit WAC 173-26-246(5)(a)(i) and (iv) as follows:

> (a)(i) Local governments must consult the technical assistance materials and spatial data provided by the department. These materials shall constitute an element of scientific and technical information as defined in these guidelines and the use of which is required by the act. Where a local government relies on information other than the department's spatial data to identify areas exposed to sea level rise hazards, it must comply with subsection (6)(c) of this section.
>
> (iv) Where information collected by or provided to local governments conflicts or is inconsistent, the local government shall consult with the department to ensure that master program provisions are defensible and based on a reasoned, objective evaluation of the relative merits of the conflicting information. The local government shall document the basis for its evaluation, including the methods, assumptions, and uncertainties of the information relied upon.

2. *Spatial resolution benchmark for inventories, and Ecology publication of data*. Edit WAC 173-26-246(6)(a) as follows:

(a)(i) Current hazards. Spatial data describing the following hazards under current conditions at a spatial resolution sufficient to inform master program provisions and site-scale review of development proposals:

(ii) Future hazards with sea level rise. Spatial data describing the following hazards under sea level rise conditions at a spatial resolution sufficient to inform master program provisions and site-scale review of development proposals. For each hazard type, spatial data must reflect . . .

(iii) Documentation and updates. To the extent such information is relevant and reasonably available, the department shall:

(A) Publish, with the spatial data, documentation of the data sources, modeling methods, spatial resolution, validation against observed conditions, and uncertainty and limitations of the data; and

(B) Make updated spatial data and documentation available to local governments no later than the start of each periodic review conducted under WAC 173-26-090(2).

3. *Ecology consultation on substitute data*. Edit WAC 173-26-246(6)(c) as follows:

> (c) Additional hazard and asset information. Local governments may have spatial data describing shoreline assets, features, and sea level rise hazards that is additional to or more precise than the minimum spatial data provided by the department. If reasonably available, local governments should compile and use this additional information to inform the analyses in subsection (7) of this section, along with the information provided by the department. Where a local government uses other information in addition to the department's spatial data to identify areas exposed to sea level rise hazards, the local government shall consult with the department to confirm that the information is consistent with subsection (5)(a) of this section, and shall document the data source, methods, spatial resolution, validation against observed conditions where available, assumptions, and uncertainties and limitations.

4. *Making hazard documentation public*. Edit WAC 173-26-246(6)(d) as follows:

> (d) The department shall make the hazard and asset inventory data described in (a) and (b) of this subsection and the documentation described in (a)(iii) of this subsection publicly available for review and consideration throughout the periodic review process. The local government must also make any additional sea level rise information used during the periodic review and the documentation required under (c) of this subsection publicly available. In the case of information provided to the local government by tribes, the local government and the tribe will agree on the degree to which this information and its documentation should be made available to the general public.

Appendix C:
Redlines for Recommendation 3
(Establish Measurable Goals)

1. *New WAC 173-26-246(8)(i)*. Edit this section as follows:

(8) [lead-in and (a)–(h) unchanged]

(i) Establish sea level rise adaptation goals and indicators to evaluate progress.

(i) Goals. Master program policies must establish adaptation goals that address the priority vulnerabilities identified in the vulnerability characterization under subsection (7)(b) of this section. Goals may be expressed as desired outcomes. They may reference the medium-term and long-term sea level rise scenarios defined in subsection (5)(b) of this section.

(ii) Indicators. Goals should be paired with one or more indicators that can be tracked using the inventory described in subsection (6) of this section, the findings under subsection (7) of this section, and the tracking information collected under WAC 173-27-195. Examples include the number or extent of public access sites, water-dependent use sites, or existing structures in areas exposed to sea level rise hazards that have been adapted or relocated, and the length of new shoreline stabilization authorized in those areas.

(iii) Baseline. The inventory under subsection (6) of this section and the exposure assessment and vulnerability characterization under subsection (7)(a) and (b) of this section serve as the baseline conditions for goals and indicators.

(iv) Evaluation. Goals must be evaluated at each periodic review as provided in subsection (3)(b) of this section.

2. *Evaluating progress*. Edit WAC 173-26-246(3)(b) as follows:

(b) The inventory, exposure assessment, vulnerability characterization, analysis of potential impacts to future development, policies, goals, and regulations must be reviewed during each periodic review cycle and, if necessary, updated. At each periodic review following the review in which goals were established under subsection (8)(i) of this section, the local government shall evaluate progress toward those goals using indicators identified under that subsection and the

tracking information collected under WAC 173-27-195 and document the results of the evaluation.

Appendix D:
Redlines for Recommendation 4
(Strengthen the Monitoring Framework)

1. Edit WAC 173-26-246(4)(c) as follows:

> Adaptive management of sea level rise policies and regulations. [first three sentences unchanged] Local governments and the department will work together to monitor the actions taken to implement sea level rise adaptation through shoreline master programs and use monitoring data from the scientific community and the tracking information collected under WAC 173-27-195 to guide updates to the sea level rise provisions in master programs over time. To support this work, the department will compile, from existing state and federal monitoring programs and to the extent such information is available, indicators of changing conditions, such as relative sea level, extreme water levels, shoreline erosion, and the extent of nearshore habitats such as kelp and eelgrass, and will make them available to local governments by the start of each periodic review. Local governments should identify the conditions or new information that would warrant considering an amendment to the sea level rise provisions before the next periodic review. Examples include updated department hazard data, observed water levels or storm events that exceed planning assumptions, and tracking results under WAC 173-27-195. Nothing in this subsection limits a local government's ability to initiate a master program amendment under WAC 173-26-090(1)(b). The periodic review process provides an established 10-year cycle over which local governments must implement, monitor, evaluate, and, if necessary, adjust sea level rise policies and regulations.

2. WAC 173-27-195(3)(i):

> (i) Whether development was authorized to occur within a standard shoreline buffer or setback, ~~sea level rise hazard~~, an area exposed to sea level rise hazards as identified in the master program under WAC 173-26-246(9)(a), critical area, or critical area buffer...

3. WAC 173-27-195(3): add a new subsection after (m).

> (n) For authorizations within areas exposed to sea level rise hazards identified under WAC 173-26-246(9)(a):
>
> > (i) Whether the authorization required design for projected sea level rise hazards, such as elevation, setback, or relocation measures;
> >
> > (ii) Whether the authorization included relocation or removal of an existing structure or development; and

(iii) Whether the authorization included an adaptive management plan or time limit under WAC 173-26-246(9)(c)(xi).

4. WAC 173-27-195(5): add at the end.

[existing text unchanged] Ecology may also provide findings and recommendations from its implementation studies to local governments. The department shall periodically summarize the tracking information related to sea level rise and make the summary available to local governments by the start of each periodic review.

Appendix E:
Redlines for Recommendation 5
(Set Triggers and Contingencies for Adaptive Management at Project Level)

Edit WAC 173-26-246(9)(c)(xi) as follows:

(xi) [lead-in and (A)–(B) unchanged]

(C) Where a shoreline modification is to be adaptively managed rather than designed for projected conditions over its lifetime, the master program requires an adaptive management plan as a condition of authorization. The plan must identify the monitoring that will be conducted, the conditions that will trigger further action, the contingent actions (such as retrofitting, relocation, or removal), and the party responsible.

Appendix F:
Redlines for Recommendation 6
(Restore Meaningful Engagement With Tribes, Overburdened Communities, and Vulnerable Populations in Sea Level Rise Planning)

1. We recommend adding a new subsection (d) to WAC 173-26-246(3):

> (d) Engagement in sea level rise planning. Before conducting the exposure assessment, vulnerability characterization, and future development analysis under subsection (7) of this section, local governments must seek to establish, through co-development with affected tribes, agreed-upon processes, methods, and schedules for communication and coordination. Local governments shall seek meaningful engagement with overburdened communities and vulnerable populations potentially affected by sea level rise throughout the assessment and master program amendment process, using the outreach and engagement strategies identified under WAC 173-26-100(1)(h). Local governments shall document how tribal priorities and community input were addressed and include that documentation in the submittal required by WAC 173-26-110.

2. We recommend adding a new definition to 173-26-020:

> [New (32), with subsequent definitions renumbered]
>
> <u>"Meaningful engagement" means a reciprocal, respectful, and transparent process between a government entity and community members to foster collaboration, build trust, and ensure that community input informs and influences decision-making. This process requires a proactive and ongoing commitment to seeking out and listening to the perspectives of vulnerable populations and overburdened communities, providing relevant information in an inclusive and accessible manner, and demonstrating how their input shaped the final outcomes. A meaningful engagement process includes but is not limited to: early and ongoing outreach, engagement, and notification; identification and mitigation of barriers to participation, including travel restrictions, language barriers, and other challenges experienced by vulnerable populations; and accountability and feedback channels.</u>

3. Edit WAC 173-26-246(7)(b)(vi) as follows:

> (vi) Identify environmental justice considerations. Local governments must consider the environmental justice dimensions of shoreline vulnerability, including disproportionate impacts to overburdened communities, vulnerable populations, and people who rely on these areas for cultural resource management or traditional practices. This includes evaluating how sea level rise hazards may affect residents, workers, tribal nations, and others with cultural, historical, or subsistence connections to places projected to be impacted. <u>The vulnerability characterization</u>

shall reflect tribal priorities for its scope, such as the inclusion or exclusion of specific locations or cultural and natural resources.

4. Edit WAC 173-26-246(8)(d) as follows:

(d) Develop sea level rise adaptation strategies and actions under the master program in coordination with tribes, incorporating mutual consideration of tribal and jurisdictional priorities, issues, and strategies ~~to the fullest extent practicable~~, and document how tribal priorities were addressed.

5. Edit WAC 173-26-221(2)(e)(iii)(D) as follows:

(D) Fish and wildlife habitat conservation areas identification and mapping**.** Local governments must consult with the department of natural resources, the department of fish and wildlife, tribes, and ecology to acquire the most current, accurate, and complete scientific and technical information available…

See also Appendix G, which recommends restoring Tribes to the section on critical saltwater habitat identification and mapping.

Appendix G:
Redlines for Recommendation 7
(Kelp and Eelgrass Protection)

1. Edit WAC 173-26-221(6)(c)(iii) as follows:

(H) Regulation of microclimate in the stream-riparian and intertidal corridors; ~~and~~

(I) Providing critical wildlife habitat, including migration corridors and feeding, watering, rearing, and refugia areas; and

(J) Providing long-term carbon sequestration and storage value. Kelp, eelgrass, salt marshes, tidal forested wetlands, and other aquatic vegetation act as carbon sinks that capture and store vast amounts of carbon dioxide for long periods of time. Conversely, if destroyed or disturbed, these biogenic habitats can release significant amounts of carbon back into the atmosphere, becoming a net carbon source.

2. Edit WAC 173-26-221(6)(b)(vii) as follows:

(vii) Local governments may implement shoreline vegetation conservation objectives through a variety of measures, where consistent with Shoreline Management Act policy, including clearing and grading regulations, setback and buffer standards, tree retention requirements, critical area regulations, conditional use requirements for specific uses or areas, mitigation requirements, incentives and nonregulatory programs. Local governments are encouraged to consider carbon sequestration and storage values when prioritizing vegetation conservation and restoration, using information provided by the department.

3. Edit WAC 173-26-221(2)(c)(viii) as follows:

Master programs shall allow the replacement of existing water-dependent development and new water-dependent development necessary to maintain preferred water-dependent uses located within critical areas where the development cannot be relocated, provided any associated hazards can be mitigated and the project can demonstrate no net loss of shoreline ecological function. This subsection does not authorize development prohibited by WAC 173-26-221(2)(e)(iii)(F)(IV).

4. Edit WAC 173-26-221(2)(c)(ix) as follows:

(ix) Master programs shall include provisions that foster and facilitate authorization of appropriate critical areas enhancement and restoration projects. Master program restoration policies shall prioritize restoration of lost or degraded habitats that support

priority species, including native kelp and seagrass, and restoration that allows critical areas to migrate landward with sea level rise.

5. Edit WAC 173-26-221(2)(e)(iii)(D)(II) as follows:

(II) Critical saltwater habitat identification and mapping. Local governments shall map and protect native kelp and seagrass beds, forage fish spawning and holding areas, and priority species habitat by applying information from the Puget Sound Vital Signs' WA State Floating Kelp Indicator, the department of natural resources' aquatic resources division, the department of fish and wildlife, the department, and affected Indian tribes. Consult with department materials on how to delineate critical saltwater habitats.

6. Edit WAC 173-26-221(2)(e)(iii)(F)(I) as follows:

(I) Include policies and regulations to protect critical saltwater and critical freshwater habitats and implement planning policies and programs to restore such habitats, consistent with statewide kelp and eelgrass conservation and recovery plans.

7. Edit WAC 173-26-221(2)(e)(iii)(F)(IV) as follows:

(IV) New or expanded docks, piers, hard shoreline stabilization, bridges, fill, floats, jetties, utility crossings, other human-made structures, and shoreline modifications shall not intrude into or over critical saltwater or critical freshwater habitats. Replacement of existing structures shall avoid or, where avoidance is not feasible, reduce intrusion into and over these habitats.

8. Edit WAC 173-26-090(2)(b)(iii)(C)(I) as follows:

(I) Local governments must consider changes in local circumstances, new information, and improved data that are readily available or provided to local governments by the department. This may include, but is not limited to, review of local watershed plans, salmon recovery plans, kelp and eelgrass recovery plans, Ecology Clean Water Act Section 303(d) actions…

9. Edit WAC 173-26-231(3)(b)(vi)(B) as follows:

(B) …Local governments should rely on local watershed restoration plans, ecology water cleanup plans (including TMDLs and their implementation plans, and advance restoration plans), salmon recovery plans, kelp and eelgrass recovery plans, and the master program restoration plan as sources of local and regional needs and priorities.

10. Add the new subsection (G) to WAC 173-26-090(2)(b)(iii):

> (G) Local governments should review and, if necessary, update the restoration plan developed under WAC 173-26-201(2)(f) to identify priorities and projects that provide climate resilience co-benefits (such as restoring marshes and estuaries to mitigate the impacts of sea level rise and restoring vegetated coastal ecosystem areas to sequester carbon) and to incorporate new information from watershed plans, salmon recovery plans, and kelp and eelgrass recovery plans.

Appendix H:
Redlines for Recommendation 8
(Restore Project-Level Review in Areas Exposed to Sea Level Rise Hazards)

1. Edit WAC 173-26-246(10) as follows:

> (10) Permitting in areas exposed to sea level rise hazards. The master program ~~should~~ shall specify ~~additional~~ submittal requirements for projects proposed in areas exposed to sea level rise hazards**,** consistent with WAC 173-27-185, and any additional requirements~~, as~~ necessary to ensure that sea level rise policies and regulatory requirements are met at the project scale.

2. Add a new WAC 173-27-185 (Application requirements for developments in areas exposed to sea level rise hazards):

> (1) Applicability. This section applies to applications for shoreline permits and letters of exemption for development in areas exposed to sea level rise hazards identified in a master program under WAC 173-26-246(9)(a). Until a local government's master program has been amended to meet WAC 173-26-246, local governments are encouraged to apply this section to development proposed in areas that the department's hazard data under WAC 173-26-246(6)(a)(ii) show to be exposed to sea level rise hazards.
>
> (2) Submittal requirements. Applications shall include:
>
> > (a) A site plan showing the location and extent of the development's overlap with areas exposed to sea level rise hazards;
> >
> > (b) The projected relative sea level rise at the site over the life of the development, using the scenarios in WAC 173-26-246(5)(b), and the resulting extent of the hazards identified under WAC 173-26-246(6)(a)(ii);
> >
> > (c) The development type, such as new development, replacement, expansion, redevelopment, or repair, and its expected life;
> >
> > (d) An evaluation of the adaptation alternatives identified in the master program, demonstrating that the most precautionary adaptation alternative that is feasible and applicable has been selected; and
> >
> > (e) For shoreline modifications to be adaptively managed, the adaptive management plan required under WAC 173-26-246(9)(c)(xi).
>
> (3) Alternative location. The local government shall determine whether the development could feasibly be located outside areas exposed to sea level rise

hazards. Where it could, and the projected exposure over the life of the development is significant, the development should be located outside those areas.

(4) Limited waiver. The local government may waive (2)(b) and (d) of this section only for repair and maintenance, temporary structures, and minor water-dependent features with an expected life of less than 10 years that are located outside areas projected to transition to aquatic environment conditions under the long-term sea level rise scenario.

3. Edit subsection (m) of WAC 173-27-180(9) and add a new subsection (n), as follows:

(m) On all variance applications the plans shall clearly indicate where development could occur without approval of a variance, the physical features and circumstances on the property that provide a basis for the request, and the location of adjacent structures and uses; and

(n) If applicable, projected sea level rise hazards, consistent with WAC 173-27-040(2)(f)(vi).

4. Edit subsection (b) of WAC 173-27-180(12) and add a new subsection (c), as follows:

(b) If the proposal is subject to the Ocean Resource Management Act (ORMA) or the marine spatial plan (MSP), include additional submittal requirements and documentation of consistency with the approval criteria as established in WAC 173-26-360 and 173-26-365, and

(c) If the proposal is located in an area exposed to sea level rise hazards, include the additional submittal requirements established in WAC 173-27-185.