## STAFF REPORT

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| **Agenda Item:** | 8 | **Name:** | Jenny Ngo |
| **Proposed No**.: | 2019-0143 | **Date:** | July 2, 2019 |

**SUBJECT**

Proposed Ordinance 2019-0143 would amend the Shoreline Master Program as part of the County's periodic review.

**SUMMARY**

Proposed Ordinance 2019-0143 would amend the goals and policies and regulations of the Shoreline Master Program through the periodic review process. Under state law, the County is required to complete a periodic review of its Shoreline Master Program (SMP) every eight years. The periodic review is intended to update the existing adopted program to reflect changes in applicable state laws as well as updates to the King County Comprehensive Plan and development regulations since 2010.

Substantive policy changes proposed in Proposed Ordinance 2019-0143 include updates to aquaculture uses, such as geoduck and net pens, and wetland protection in the critical areas regulations. Other changes include updates to reflect state law, such as new exemptions and exceptions for permitting, and targets for local review.

Striking Amendment S1 would make technical changes to the proposed ordinance.

Amendment 1 would modify code provisions related to wetland regulations, including buffer widths, averaging, land use impact categories, and minimization measures.

At this July 2, 2019 meeting, Council staff will review Striking Amendment S1, which is included in the staff report as Attachment 5.

**BACKGROUND**

The Shoreline Management Act (SMA) was adopted in 1971 with the purpose of managing and protecting shorelines[[1]](#footnote-1) through coordinated planning. The SMA recognizes that "the shorelines of the state are among the most valuable and fragile of its natural resources." In order to protect this resource, the SMA requires counties and cities to develop plans and adopt regulations to "prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." The SMA identifies seven preference values: recognition and protection of statewide interests over local interests, preservation of the natural character of the shoreline, long term benefit over short term benefit, protection of the resources and ecology of the shoreline, increased public access to publicly owned areas, increased recreational opportunities for the public, and to provide for any other element deemed necessary or appropriate.

The Shoreline Management Act requires local jurisdictions to develop or amend a Shoreline Management Program (SMP) under a comprehensive update as well as complete a periodic review of their SMP once every eight years.[[2]](#footnote-2) On November 30, 2010, King County adopted an updated SMP as part of the required comprehensive update through Ordinance 16985.[[3]](#footnote-3) The SMP underwent a number of amendments in an omnibus under Ordinance 18767 in 2018.[[4]](#footnote-4) However, these changes have not been approved by the Department of Ecology yet and are not in effect at this time. Once the Department of Ecology approves the omnibus, changes will become effective within 14 days of approval.

The purpose of the periodic review is to assure that the SMP "complies with applicable laws and guidelines in effect" and is consistent "with the local government's comprehensive plan and development regulations…and other local requirements."[[5]](#footnote-5) The periodic review also includes amendments to reflect changed circumstances, new information, or improved data. The distinction between the comprehensive update, which was completed in 2010 under Ordinance 16985, and the periodic review is that the comprehensive update included a complete evaluation of state law and guidelines whereas the periodic review requires a limited evaluation of only regulatory changes that have occurred since the last comprehensive update.

The deadline for completing the periodic review for jurisdictions in King, Pierce and Snohomish Counties is June 30, 2019. Under state law, the periodic review must be accomplished through the adoption of an ordinance, and where public notice, a public hearing, and findings that a review and evaluation have occurred.[[6]](#footnote-6)

**Public Review Process**

Under state law, adoption or amendments to the Shoreline Master Program are required to undergo two public review processes: a local land use review first completed by the local jurisdiction and a state review by the Department of Ecology after approval by the local jurisdiction. These public review processes occur independently with separate public comment periods. For periodic reviews, local jurisdictions may elect to use an optional joint review process, which consolidates these separate comment periods into one process prior to local approval.[[7]](#footnote-7) Executive staff has indicated that they have communicated with the Department of Ecology on utilizing the optional joint review process for this periodic review.

As part of the periodic review, local jurisdictions are required to make all reasonable efforts to inform, fully involve and encourage public participation. The County is required to establish and broadly disseminate to the public a public participation plan. The Executive has prepared a public participation plan required under WAC 173-26-090(3)(a).

**ANALYSIS**

**Summary of Changes in Proposed Ordinance**

Proposed Ordinance 2019-0143 would modify the Shoreline Master Program, including goals and policies (KCCP Chapter 6) and shoreline development regulations (K.C.C. Title 21A). Major changes can be broadly categorized in three categories: 1) revisions to aquaculture regulations (e.g., net pens or geoduck harvesting), 2) updates to reflect changes in state law since 2010, and 3) regulatory updates to reflect current wetland science.

Revisions to aquaculture regulations

In 2018, Council adopted a moratorium and two extensions[[8]](#footnote-8) prohibiting commercial nonnative salmon net pens in unincorporated King County, following the failure of a commercial net pen in Puget Sound. As part of the Executive's work evaluating regulations as required by the moratorium, revisions to the aquaculture provisions of the code are proposed in this legislation. Proposed Ordinance 2019-0143 would restructure aquaculture uses in the shoreline use table. An existing shoreline use, "aquaculture" would be removed and five new uses would be added: "nonnative marine finfish aquaculture," "noncommercial native salmon net pens," "other native finfish net pens," "geoduck aquaculture," and "other aquaculture." These uses would have associated aquaculture conditions and standards that regulate the type, intensity, and location of these uses.

"Nonnative marine finfish aquaculture" and "commercial salmon net pens" would be prohibited in all shoreline environments.

"Noncommercial native salmon net pens" would be classified as a permitted use subject to conditions and provided the facilities are operated by tribes with treaty fishing rights, used for a limited duration to cultivate wild salmon stocks, or part of a captive brood stock recovery program for endangered species.

Siting of new "geoduck aquaculture" is classified as a conditional use in the aquatic shoreline environment and requires a shoreline substantial development permit when substantial interference with normal public use of the shoreline occurs.

"Other aquaculture" is classified as a permitted use in all shoreline environments subject to conditions.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | High Intensity | Residential | Rural | Conservancy | Resource | Forestry | Natural | Aquatic |
| ((~~Aquaculture (fish and wildlife management, K.C.C. 21A.08.090)~~ | ~~P2~~ | ~~P2~~ | ~~P2~~ | ~~P2~~ | ~~P2~~ | ~~P2~~ | ~~P2~~ | ~~P2~~)) |
| Nonnative marine finfish aquaculture |  |  |  |  |  |  |  |  |
| Commercial salmon net pens | ((~~C2~~)) | ((~~C2~~)) | ((~~C2~~)) | ((~~C2~~)) | ((~~C2~~)) | ((~~C2~~)) |  | ((~~C2~~)) |
| Noncommercial native salmon net pens | P2 | P2 | P2 | P2 | P2 | P2 | P2 | P2 |
| Other native finfish net pens |  | C2 | C2 | C2 |  |  |  | C2 |
| Geoduck aquaculture | C2 | C2 | C2 | C2 | C2 | C2 | C2 | C2 |
| Other aquaculture (fish and wildlife management, K.C.C. 21A.08.090) | P2 | P2 | P2 | P2 | P2 | P2 | P2 | P2 |

Development Condition 2 requires:

* The supporting infrastructure for aquaculture may be located landward of the aquaculture operation, the operation must meet the standards in K.C.C. 21A.25.100.
* Net pens cannot be located closer than 1,500 feet from the ordinary high water mark when adjacent to a residential shoreline environment or rural shoreline environment, unless appropriate based upon a visual impact analysis.
* As revised by Proposed Ordinance 2019-0143, commercial net pens are prohibited in or adjacent to the natural shoreline environment. Other aquaculture is permitted for activities that do not require structures, facilities or mechanized harvest practices, and does not alter the natural systems, features, or character of the site.
* As included in Proposed Ordinance 2019-0143, farm-raised geoduck aquaculture requires a shoreline substantial development permit if a project or practice cause substantial interference with normal public use of the surface waters.
* As included in Proposed Ordinance 2019-0143, new commercial geoduck aquaculture requires a conditional use permit. Subsequent cycles of planting and harvesting do not require a conditional use permit.

Updates to reflect state laws since 2010

State law requires periodic reviews of the SMP to be consistent with changes in state law that occurred since approval of the comprehensive update in 2010. As part of the Executive transmittal, a periodic review checklist identifying the state laws that have changed since 2010 along with the Executive's review and proposed necessary actions was completed by Executive staff (Attachment 4). Although a number of changes were made to state law, many of these changes do not appear to warrant changes to the SMP goals and policies or regulations as the County's SMP incorporates or references the state law in whole.

Ecology adopted several rule changes regarding shoreline exclusions and exceptions, including dismantling or removing of structures without any associated development, remedial hazardous substance cleanup actions, boatyard improvements to meet NPDES[[9]](#footnote-9) requirements, and certain WSDOT maintenance and safety project and activities. The Executive-proposed transmittal amends code references to reflect relevant state laws. Other exemptions passed in state law are included by reference in K.C.C. Title 21A.

The Legislature adopted a 90-day target for local review of WSDOT projects and allows WSDOT that address safety risks to begin work 21 days after the filing date if no net loss of ecological functions occurs. Proposed Ordinance 2019-0143 amends permit issuance procedures (K.C.C. 20.20100) to include the target timeline.

State rule changes were made to geoduck aquaculture. These include excluding wild geoduck harvest when associated with a state managed wildstock geoduck fishery, requirements for substantial development permits for projects or practices that cause substantial interference with normal public use of surface waters, and requirements for conditional use permits for new commercial geoduck aquaculture. These changes were included in the Executive's proposal (discussed in the aquaculture section above).

Proposed Ordinance 2019-0143 includes an amended Development Condition 7 for "habitat and natural systems enhancement projects" for shoreline restoration projects within the Urban Growth Area that create a shift in the ordinary high water mark, consistent with a "relief" procedure created by the state. Applications for relief would be filed with the County as part of a required permit. As proposed in the Executive's transmittal, Development Condition 7 would state:

7.a. If the department determines the primary purpose is restoration of the natural character and ecological functions of the shoreline, a shoreline habitat and natural systems enhancement project may include shoreline modification of vegetation, removal of nonnative or invasive plants, shoreline stabilization, including the installation of large woody debris, dredging and filling. Mitigation actions identified through biological assessments required by the National Marine Fisheries Services and applied to flood hazard mitigation projects may include shoreline modifications of vegetation, removal of nonnative or invasive plants, shoreline stabilization, including the installation of large woody debris, dredging and filling.

 b. Within the Urban Growth Area, the county may grant relief from shoreline master program development standards and use regulations resulting from shoreline restoration projects consistent with criteria and procedures in WAC 173-27-215.

Lastly, Ecology amended rules clarifying that SMPs must include a list and map of streams and lakes within the shoreline jurisdiction and requires that the County amends the list within 3 years of discovery of a qualifying stream segment or lake. This provision is proposed in K.C.C. 21A.25.050, describing the shoreline jurisdiction.

Regulatory updates to reflect current wetland science

The Proposed Ordinance includes technical changes to the wetland standards and the methodology for classifying wetlands (wetland rating) within the critical areas chapter (K.C.C. Chapter 21A.24) of the zoning code. Since the SMP's comprehensive update in 2010, the Department of Ecology adopted the 2014 wetland rating system[[10]](#footnote-10) as well as a revised Wetlands Guidance for Critical Areas Ordinance Updates.[[11]](#footnote-11)

The wetland rating system is used by wetland biologists to classify wetlands in a standardized methodology across Western Washington. Wetlands are rated Category I through IV, with Category I indicating the highest scoring wetland. The 2014 rating system is an update from the 2004 rating system that the County currently uses. Major differences between the systems include adjusting the overall scoring for wetlands from 1-100 points in the 2004 system to 9-27 points in the 2014 system,[[12]](#footnote-12) modifications to the scoring through the rating forms, and adding interdunal wetlands[[13]](#footnote-13) over an acre with a high habitat score as a Category I wetland.

The 2014 update of the wetland rating system utilizes the same four wetland categories as the 2004 version, with the differences in the scaling of scores. Additionally, the 2014 update uses the same three categories for habitat function (used for establishing buffer widths) as the 2004 system. The Department of Ecology provides two tables that crosswalk between these two systems:

**Table 1. Department of Ecology's scoring for Wetland Categories using the 2004 and 2014 wetland rating systems**

|  |  |  |
| --- | --- | --- |
| **Wetland Category** | **2004** **Score Range** | **2014** **Score Range** |
| **I** | > 70 | 23-27 |
| **II** | 51-69 | 20-22 |
| **III** | 30-50 | 16-19 |
| **IV** | < 30 | 9-15 |

**Table 2. Department of Ecology's scoring for Habitat Function using the 2004 and 2014 wetland rating systems**

|  |  |  |
| --- | --- | --- |
| **Habitat Function Scores** | **2004Score Range** | **2014Score Range** |
| High  | 29-36 | 8-9 |
| Medium | 20-28 | 6-7 |
| Low  | < 19 | 3-5 |

The County establishes wetland buffer widths based on the wetland category (I through IV) as well as the habitat function score, which is a measure of the site's functions to provide habitat and is also scored through the wetland rating forms. Proposed Ordinance 2019-0143 updates the buffer tables with these revised habitat scores approximate to Ecology's crosswalk table, one of which is shown in Table 3. Other proposed changes include modifying terminology from "natural heritage wetlands" to "wetlands of high conservation value" consistent with the State's 2014 update and removing stair-stepping of buffer footage for Category I and Category II moderate level of function wetlands.

**Table 3. Proposed Wetland Buffer Widths inside the Urban Growth Area (K.C.C. 21A.24.325.A.1)**

|  |  |
| --- | --- |
| **WETLAND CATEGORY AND CHARACTERISTICS** | **BUFFER**  |
| **Category I** |
| ((~~Natural Heritage Wetlands~~)) Wetlands of High Conservation Value | 215 feet |
| Bog | 215 feet |
| Estuarine | 175 feet |
| Coastal Lagoon | 175 feet |
| Habitat score from ((~~31~~)) 8 to ((~~36~~)) 9 points (high function) | 225 feet |
| Habitat score from ((~~20~~)) 6 to ((~~30~~)) 7 points (moderate function) | 150 feet ((~~plus 7.5 feet for each habitat score point above 20 points~~)) |
| Category I wetlands not meeting any of the criteria above | 125 feet |
| **Category II** |
| Estuarine | 135 feet |
| Habitat score from ((~~31~~)) 8 to ((~~36~~)) 9 points (high function) | 200 feet |
| Habitat score from ((~~20~~)) 6 to ((~~30~~)) 7 points (moderate function) | 125 feet ((~~plus 7.5 feet for each habitat score point above 20 points~~)) |
| Category II wetlands not meeting any of the criteria above | 100 feet |
| **Category III** |
| Habitat score from 8 to 9 points (high function) | 200 feet |
| Habitat score from ((~~20~~)) 6 to ((~~28~~)) 7 points (moderate function) | 125 feet |
| Category III wetlands not meeting any of the criteria above | 75 feet |
| **Category IV** | 50 feet |

**Policy Considerations**

Staff have identified two major policy issues in this proposed ordinance: aquaculture regulations and wetland regulations.

Aquaculture

The Executive's proposal includes a number of new policy additions in the SMP goals and policies in KCCP Chapter 6. The proposal would modify aquaculture as a preferential use of the shoreline to a use that "should be allowed" (Policy S-716). Under Policy S-717, language is proposed to be added where the County may prohibit or condition aquaculture uses that involve a significant risk in shoreline ecological function or cumulative adverse effects on the environment or native species and their habitats.

Additionally, the Executive's proposal includes several new policies:

* Policy S-716a would prohibit nonnative marine finfish aquaculture;
* Policy S-272b would prohibit new commercial salmon net pen aquaculture;
* Policy S-727d would require the County to review and condition the siting of net pens to provide for environmental and ecological protect, and
* Policy S-272e would require the County to revisit policies during the next periodic review.

The Executive's proposal modifies Policy S-718 to state that aquaculture permits shall not be approved where significant impacts occur. Council may wish to consider whether to consolidate policies prohibiting uses with this update, or waiting until such time that the County has revisited policies during the next periodic review.

Other added policies include Policy S-272c, which states support for tribal treaty fishing rights; and Policy S-272a, which would require proper management of upland uses in the shoreline jurisdiction to avoid degradation of water quality. These policies are either consistent with existing County policies (Policy S-272a) or reflect state law changes (S-272c).

Nonative marine finfish aquaculture and commercial salmon net pens are proposed to be prohibited in both KCCP Chapter 6 and K.C.C. Chapter 21A.25. Limited net pen operations could occur that support tribal treaty fishing rights, including operation of noncommercial salmon net pens for temporary rearing and brood stock recovery programs.

Additionally, a number of changes to aquacultural uses in K.C.C. Chapter 21A.25 are proposed, including repealing "aquaculture" as a shoreline use, adding four new shoreline uses, and prohibiting "commercial salmon net pens" and "nonnative marine finifsh aquaculture."

Wetlands

It is unclear what on-the-ground impacts would be generated from the Executive's proposal for sites featuring wetlands and wetland buffers. With the change in rating systems, wetlands may be rated into different categories or have different habitat scores, which could impact buffer widths. These impacts are determined on a case-by-case basis through the rating process completed during permitting review. During the update of the 2014 system, the Department of Ecology rated 111 wetlands across Western Washington to compare how wetlands would be rated in the 2004 system and the 2014 system, shown in Table 4.

**Table 4. Wetlands 2004 and 2014 Comparison Table**

|  |  |  |
| --- | --- | --- |
| **Category** | **2004 Rating System** | **2014 Rating System** |
| I | 13 | 11 |
| II | 52 | 44 |
| III | 39 | 49 |
| IV  | 7 | 7 |

Source: Department of Ecology, Wetland Rating System for Western Washington: 2014 Update, page 3.

The Department of Ecology identifies the Wetlands Guidance for Critical Areas Ordinance Updates[[14]](#footnote-14) in their periodic review checklist (Attachment 4) as a document adopted between 2007 and 2017 that may trigger an amendment during the periodic review process. Under RCW 90.58.080(4), the County is required to update the SMP to comply with applicable law and guidelines in effect at the time of the review. The guidance provides information on exemptions, allowed alterations, buffer widths, averaging, mitigation, and alternatives.

**AMENDMENTS**

**Striking Amendment S1**

Striking Amendment S1 is included as Attachments 5 to the staff report, with a track changes version included as Attachment 6. The changes within this striking amendment include items that are technical or clarifying in nature.

Aquaculture uses. Striking Amendment S1 makes several changes to aquaculture provisions in the Proposed Ordinance. As included in Proposed Ordinance 2019-0143, five new uses are added to the shoreline use table in K.C.C. 21A.25.100: "nonnative marine finfish aquaculture," "noncommercial native salmon net pens," "other native finfish net pens," "geoduck aquaculture," and "other aquaculture."

Striking Amendment S1 would revise two of the proposed shoreline uses: "other native finfish net pens" to "native non-salmonid finfish net pens" and "other aquaculture" to "aquaculture, not otherwise listed." These changes were made to clarify the scope of these uses. Four definitions are proposed for aquaculture uses:

* Commercial salmon net pens: underwater net facilities used for the raising of salmonid species, whether or not they are indigenous to the Puget Sound region for commercial purposes.
* Geoduck aquaculture: the culture or farming of geoduck, excluding the harvest of wild geoduck associated with the state-managed wildstock geoduck fishery, including planting and harvesting activities.
* Nonnative marine finfish aquaculture: the culture or farming of marine finfish that are not indigenous to the Puget Sound region.
* Noncommercial native salmon net pens: underwater net facilities used for the raising of salmonid species indigenous to the Puget Sound region for the purposes of species recovery and restoration, or tribal or recreational catch.

Revised definitions. Six shoreline-related definitions are modified in K.C.C. Title 21A and KCCP Chapter 6 to be consistent with state law or to correct incorrect code citations. These terms are: "shorelands", "shoreline", "shoreline jurisdiction", "shoreline variance", and "substantial development." The term "shorelines" is repealed and the term "shorelines of the state" is created consistent with the Shoreline Management Act. Several critical areas terms, including wetlands, wetland edge and aquatic areas, are revised for code references or to be consistent with revised shoreline definitions.

Other technical or clarifying changes. Striking Amendment S1 includes changes to correct grammar, terminology, department and agency names, spelling, ordinances and code references, and to reflect the Executive's intent.

**Amendment 1**

During the periodic review process, the Department of Ecology identified additional changes to wetland regulations necessary to meet the state's standard of best available science beyond those changes included in Proposed Ordinance 2019-0143. Amendment 1 to Striking Amendment S1 is included as Attachment 7, and would revise wetland buffer regulations found in K.C.C. 21A.24.325 to meet Ecology's recommendation and guidance documents by:

1. Establishing one set of minimum wetland buffer for all of unincorporated King County. Under current code, two sets of buffers have been established for inside the urban growth area and outside the urban growth area. Buffers for inside the urban growth area have generally been smaller than buffers for outside the urban growth area. This change results in buffers that are higher for 12 of the 14 existing wetland buffer types (ranging between 15 and 75 feet), lower for 1 wetland buffer type, and the same for 1 wetland buffer type.
2. Establishes additional requirements for buffer averaging, including a maximum reduction of 25 percent in width and requirements for the protection and prioritization of averaged areas.
3. Establishes buffer reduction options for sites with a high impact. Sites with a high impact and with a habitat score of high or moderate level of function may have the buffer widths reduced to the buffer required for a moderate impact if: 1) minimization measures are implemented and 2) a 100-foot vegetated corridor is provided. Sites with a high impact and with a low habitat score may have the buffer widths reduced to the buffer required for a moderate impact if minimization measures are implemented.
4. Revises categories of intensity for adjacent land use impacts (high, moderate and low impacts) used to determine buffer widths and potential buffer reductions. Institutional uses, all sites in the urban growth area, all residential uses on sites zoned greater than 1 dwelling unit per acre and high-intensity recreation are added to the high impact category. Residential on sizes zoned 1 dwelling unit per acre or less, residential in the RA zone, utility corridors shared by several utilities and moderate-intensity recreation are added as moderate impact. Passive recreation, agricultural uses with an approved farm management plan or utility corridors with no roads or little vegetation maintenance are added as low impact.
5. Revises the table of measures used to minimize impacts of proposed land uses ("minimization measures") to include additional measures for noise, toxic runoff, stormwater runoff, and pets/human disturbance.

The proposed changes in Amendment 1 would apply countywide, within and outside of the shoreline jurisdiction.

**Amendments for Full Council**

At this time, Council staff is coordinating additional potential changes with Councilmembers, the Department of Ecology and the Executive for consideration at the full Council action later this year.

**INVITED**

* John Taylor, Director, DLS
* Jim Chan, Division Director, DLS, Permitting Division
* Christine Jensen, Legislative Policy Analyst, DLS, Permitting Division
* Josh Baldi, Division Director, DNRP, Water and Land Resources

**ATTACHMENTS**

1. Proposed Ordinance 2019-0143 with attachment
2. Transmittal Letter
3. Fiscal Note
4. Periodic Review Checklist
5. Striking Amendment S1 clean copy dated June 26, 2019
6. Striking Amendment S1 with track changes dated June 26, 2019
7. Amendment 1 to Striking Amendment S1
8. Title Amendment T1
9. 2019 Shoreline Master Program Periodic Review Schedule

**LINKS**

King County Council 2019 Shoreline Master Program Periodic Review website: <https://www.kingcounty.gov/council/shorelinemp.aspx>

1. The SMA protects shorelines of the state, which are comprised shorelines and shorelines of statewide significance, as defined in RCW 90.58.030. This generally includes streams with a mean annual flow of more than 20 cubic feet per second, lakes that are 20 acres in size or greater, associated wetlands, and shorelands. King County includes the 100-year floodplain in its shorelines. [↑](#footnote-ref-1)
2. WAC 173-26-090 [↑](#footnote-ref-2)
3. Ecology approved the SMP in 2013 following additional amendments adopted under Ordinance 17485. [↑](#footnote-ref-3)
4. Amendments includes changes to definitions, permitted alterations and alteration exceptions to critical areas, permitted shoreline modifications, permit requirements, nonconformance, and procedural changes. The 2017-0244 staff report details the changes. [↑](#footnote-ref-4)
5. RCW 90.58.080(4)(a) [↑](#footnote-ref-5)
6. WAC 173-26-090(2)(c)(i) [↑](#footnote-ref-6)
7. WAC 173-26-104 [↑](#footnote-ref-7)
8. The moratorium was adopted under Ordinance 18617 and subsequently extended under Ordinances 18736 and 18808. [↑](#footnote-ref-8)
9. National Pollution Discharge Elimination System [↑](#footnote-ref-9)
10. More information on the 2014 Washington State Wetland Rating System for Western Washington is available through the Department of Ecology's publication: <https://fortress.wa.gov/ecy/publications/documents/1406029.pdf> [↑](#footnote-ref-10)
11. https://fortress.wa.gov/ecy/publications/summarypages/1606001.html [↑](#footnote-ref-11)
12. Category I wetlands – 2004: 70+ points, 2014: 23+ points; Category II wetlands – 2004: 51-69 points, 2014: 20-22 points; Category III wetlands – 2004: 30-50 points, 2014: 16-19 points; Category IV – 2004: <30 points, 2014: 9-15 points [↑](#footnote-ref-12)
13. Interdunal wetlands may form in areas of coastal dunes, resulting from the interaction among sand, wind, water and plants. [↑](#footnote-ref-13)
14. <https://fortress.wa.gov/ecy/publications/summarypages/1606001.html> [↑](#footnote-ref-14)