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**COMMUNITY PLANNING &
ECONOMIC DEVELOPMENT DEPARTMENT**

Creating Solutions for Our Future

Joshua Cummings, Director

MEMORANDUM

TO: Planning Commission

FROM: Andrew Deffobis, Interim Senior Planner

DATE: March 9, 2022

SUBJECT: Shoreline Environment Designation Reviews & Background

Introduction & Background

The Planning Commission is being provided additional information regarding shoreline environment designations (SEDs) ahead of the planned work session on March 16, 2022, staff will ask for direction from the Planning Commission on the four case studies presented in this memo.

During the public hearing comment period for the SMP Update, the Planning Commission received comments for approximately twelve shoreline environmental designation reaches, with citizens requesting the County consider different designations than what was proposed. Staff is drafting information on the remaining case studies to be presented at an upcoming Planning Commission meeting.

Overall, the Shoreline Master Program (SMP) update has been under review with the Planning Commission since 2017. Shoreline environment designations (SEDs) have been the topic of many of the Planning Commission discussions, both prior to and after the October 20, 2021, public hearing. Recommendations on these reaches are a portion of the overall Planning Commission recommendation to the Board of County Commissioners (Board). The Board is eager to receive the Planning Commission's recommendation and begin its review so the County may meet its statutory requirement to produce a comprehensive SMP update.

Shoreline Environment Designation Process

The SMP is built upon an [inventory and characterization](#) and includes proposed environment designations for the County's shorelines, which were developed in an earlier phase of the project. The Inventory & Characterization report serves as a snapshot of shoreline conditions for

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planning purposes. The County conducted field reviews and reviewed available data to assemble information on the existing condition of County shorelines, including but not limited to physical features, priority habitats and species, water quality, riparian vegetation width, land use, zoning, development potential, public access, shoreline modifications, and management issues and opportunities.

This Inventory and Characterization Report and report supplement were used alongside designation criteria based on Ecology's recommended Shoreline Environment Designation system ([WAC 173-26-211](#)) to propose shoreline environment designations (SEDs) for County shorelines. SEDs contribute to achieving no net loss of ecological function by tailoring allowed uses, permit requirements, and development and mitigation standards to different shoreline environments based on their sensitivity and level of ecological function. SEDs range from relatively undisturbed "Natural" shorelines to more highly developed, impacted "Shoreline Residential" shorelines. The County's [SED Report](#) and [SED Report supplement](#) describe SEDs used in the SMP update, the methodology for assigning designations to shoreline reaches, and lists the proposed designations for shoreline reaches.

Staff have attempted to analyze the current SED review requests in a manner consistent with how the County conducted this work for all shoreline reaches earlier in this project. The County uses the best information available in planning and permitting decisions. However, the scope of the current review and available resources are smaller than previous efforts, and there are limitations to the analysis that can be provided. The Planning Commission is encouraged to consider the decisions before them in a landscape context, as it is difficult in some cases to focus the data at hand to the parcel or sub-parcel level. In addition, the SED criteria were not intended to be applied at a parcel-by-parcel level.

Staff acknowledges that many of the review requests focus on individual parcels, or portions of parcels. Many times, these have been in areas where one reach ends and another begins (known as reach breaks). Shoreline reaches were identified during the Inventory & Characterization, and that information was used to apply appropriate SEDs to these reaches. It may be instructive to review how proposed reach breaks were formed during the inventory and characterization:

During the creation of final reach breaks, an effort was made to place reach break points on parcel lines. This was done to avoid the potential for a parcel to contain more than one environmental designation. Due to the emphasis of placing reach break points on parcel lines, these locations do not always exactly line up with the locations of key environmental changes (e.g., topography might begin to change shortly before or after a reach break point). Breaks were located closest to the environmental change that was also on a parcel line. Despite this focus on parcel line reach break placement, there were some instances when a reach break was located mid-parcel because that was where the geographic change occurred (e.g., basin lines). This was particularly true when an environmental change occurred within a large parcel. (Inventory & Characterization, p. 13)

Citizen Requests for Specific Shoreline Reaches

Staff plan to review four citizen requests at the March 16, 2022 meeting. Staff recommendations and options are summarized in this memo. A more detailed review of each request is attached, in draft form. In addition, the Planning Commission may review the [Powerpoint presentation](#) staff previously developed for these four requests, and the [SED comparison web tool](#) that was developed to enable the user to toggle between current and proposed SEDs.

Long Lake parcels (Reaches LLO-4—LLO-5 and LLO-5—LLO-6)

This request was to review the proposed SEDs for three parcels on the edge of Reach LLO-5—LLO-6, on Long Lake. A portion of the area is proposed to be Shoreline Residential, and the request was to extend that designation to all three parcels.

The Planning Commission asked for more information about this specific request. It is more complex because the area in question has recently undergone a boundary line adjustment, and the mapped parcel lines in GeoData do not yet reflect the updated parcel boundaries. Also, parcel lines and the mapped extent of shoreline jurisdiction and critical areas are approximate. This information must be verified in the field during project review.

The Planning Commission raised questions about the mapped extent of SMP jurisdiction. The SMP draft extends jurisdiction to the outer edge of critical areas buffers. The SMP update's mapping of shoreline jurisdiction includes the mapped extent of wetlands, and frequently flooded areas, but critical area buffers (e.g. wetland, steep slope, wildlife habitat buffers) are not mapped because they are not determined until a land use application is being reviewed.

Staff analysis for the Long Lake parcels are attached. Based on a review of the designation criteria in the County's SED report, the staff recommendation for this area is to provide Shoreline Residential SED for two smaller parcels in question, and Natural SED for the larger parcel.

The Planning Commission could opt to make these changes, decline to make changes, or propose a different option that is consistent with the designation criteria.

Nisqually Reach (MNI-21—MNI-22)

This request was to designate Reach MNI-21—MNI-22 of Nisqually Reach as Shoreline Residential (the SMP draft proposed Rural Conservancy). Staff analysis is attached. Based on a review of existing conditions and the designation criteria, staff propose retaining the proposed designation of Rural Conservancy.

The Planning Commission may opt to retain the Rural Conservancy SED for this reach, or propose a different option that is consistent with the designation criteria..

Eld Inlet – Sanderson Harbor (MEL-02—MEL-03)

This request was to provide a Rural Conservancy SED to the northern portion of Reach MEL-02—MEL-03 in the vicinity of Sanderson Harbor (Shoreline Residential is currently proposed). Staff analysis is attached. Based on a review of designation criteria, existing regulations, and the process used to determine reach breaks for Thurston County’s shorelines as a whole, staff recommend retaining a proposed designation of Shoreline Residential for the entire reach.

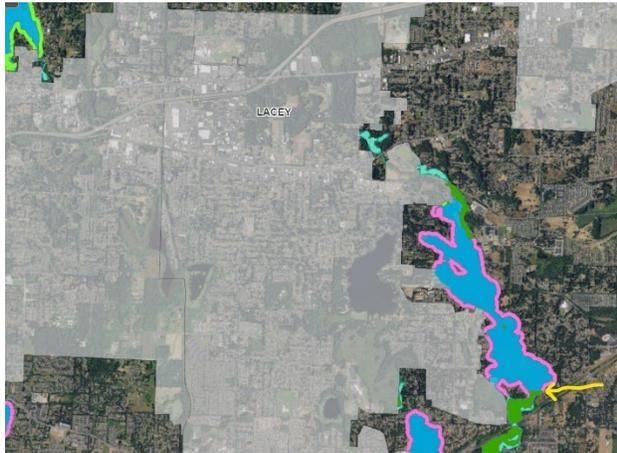
The Planning Commission may opt to retain the Shoreline Residential SED for this reach, or propose a different option that is consistent with the designation criteria.

Eld Inlet – Green Cove (MEL-29—MEL-30 and vicinity)

This request was to extend the Natural SED to a larger area of Green Cove, beyond the current boundaries of Reach MEL-29—MEL-30. Staff analysis is attached. Based on a review of existing conditions and the designation criteria, staff recommend modifying the boundaries of Reach MEL-29—MEL-30 to include additional area that meets the designation criteria for the Natural SED.

The Planning Commission may opt to change the boundaries of Reach MEL-29—MEL-30 or leave them as proposed.

**SED Review Analysis: Long Lake – LLO-4—LLO-5; LLO-5—LLO-6
(4242, 4244, and 4248 Kyro Rd. SE)**



Top left: General location of subject area. Top right: Parcel numbers of subject area, for reference. Bottom left: Highlighted subject area with current SEDs. Bottom right: Highlighted subject area with proposed SEDs. Proposed reach LLO-4—LLO-5 has a proposed SED of Shoreline Residential, in pink. Proposed reach LLO-5—LLO-6 has a proposed SED of Natural, in green.

Current SED: Rural & Conservancy

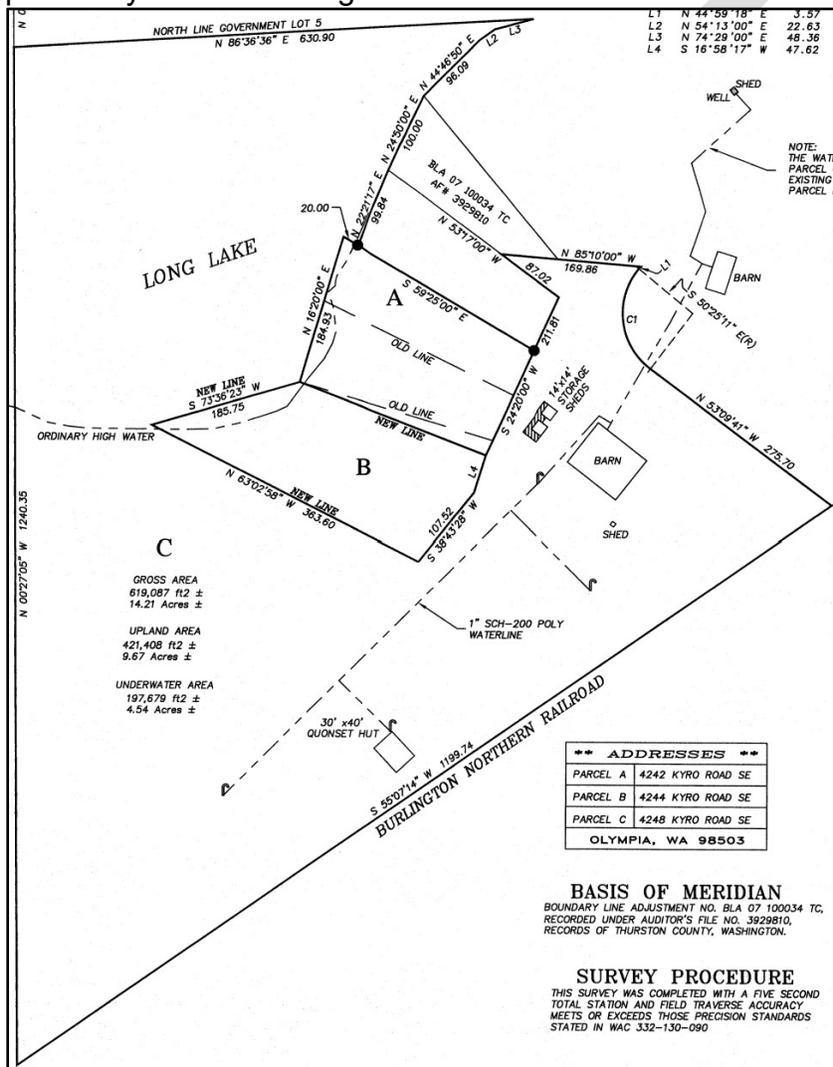
Proposed SED: Shoreline Residential & Natural

Citizen Request: Shoreline Residential

Staff Analysis:

The subject area is on the boundary of two proposed shoreline reaches: LLO-4—LLO-5 and LLO-5—LLO-6. The parcels in question currently have two designations—one portion is Rural, and the other is Conservancy. The proposal is for areas north of this reach break to be designated Shoreline Residential, and for areas south of it to be designated Natural. The proposed reach break is in approximately the same location as the boundary between the current Rural and Conservancy designated areas.

Note: There are boundary line changes to the subject parcels that have been approved and recorded with the County Auditor, but have not yet been reflected in the County's parcel layers. See the figure below.



The citizen request is to re-evaluate this proposal, and provide a designation of Shoreline Residential to the entire area. Because a portion of the area in question is already proposed to be designated Shoreline Residential (a portion of Lot A, 4242 Kyro Rd.), the analysis will focus on area within the subject parcels that is currently proposed to have a Natural SED.

The following tables provide a review of the Natural, Urban Conservancy, and Shoreline Residential designation criteria from the Thurston County SED Report, alongside information about Reach LLO-5—LLO-6 contained in the SED Report and Inventory & Characterization (I&C).

Natural SED

SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
Ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity.	<p>SED report notes this criteria for this reach.</p> <p>I&C states “Within the associated wetlands, riparian vegetation is still intact.”</p>	<p>WAC 173-26-211(5)(a)(iii)(C) discusses the term ‘ecologically intact’. Between the 2009 and 2012 aerial photographs, vegetation appears to have been removed in a portion of the shorelands of 4244 Kyro Rd, and begins to grow back in more recent photographs. The majority of the reach does not appear to have been altered in the recent past, per aerial photographs. The entire reach appears to be free of structural shoreline modifications, structures, and intensive uses (other than the aforementioned clearing). A ditch may have been cut through the wetland to aid flow from Pattison Lake into Long Lake. The wetlands appear vegetated, though the composition of that vegetation has not been confirmed. The majority of this reach appears to be closer to “intact” than “totally degraded”. The reach is bordered by a road and railroad.</p>
Considered to represent ecosystems and geologic types that are of particular scientific and educational interest	None noted	
Unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.	SED report notes this criteria for this reach.	<p>The majority of this reach appears to be intact and has not been altered in the recent past. Development could result in significant impacts in these areas. The shorelands associated with 4244 Kyro Rd.(Lot B), and wetland buffer of</p>

		Lot C have been cleared in the past (2009-2012), and a portion remain cleared. These areas may be providing a lower degree of ecological function.
Includes largely undisturbed portions of shoreline areas such as wetlands, estuaries, unstable bluffs, coastal dunes, spits, and ecologically intact shoreline habitats.	SED report notes this criteria for this reach.	Wetlands and riparian vegetation can be observed in this reach. The majority of the reach appears to be largely undisturbed.
Retain the majority of their natural shoreline functions, as evidenced by shoreline configuration and the presence of native vegetation.	SED report notes this criteria for this reach.	A portion of the shorelands along Long Lake have been converted to lawn/pasture/grass (some visible in all lots). The majority of this reach contains wetland and upland vegetation, though a site visit has not been conducted to determine the degree of native vegetation. Staff have not seen evidence to suggest shoreline configuration has been altered.
Generally free of structural shoreline modifications, structures, and intensive human uses.	SED report notes this criteria for this reach. I&C analysis matrix notes 0 piers, docks, armoring in this reach.	As a whole, this reach is largely free of structural shoreline modifications, structures, and intensive human uses. (One dock is observed on a portion of 4242 Kyro Rd. that is outside Reach LLO-5—LLO-6).

Urban Conservancy SED

SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
Appropriate and planned for development compatible with maintaining or restoring ecological		The subject area is within the Lacey urban growth area. Majority of reach is not appropriate for development based on critical area and floodplain regulations.

functions of the area, that lie in incorporated municipalities, urban growth areas, or commercial or industrial rural areas of more intense development AND at least one of the following:		
Suitable for low-intensity water-dependent, water-related or water-enjoyment uses without significant adverse impacts to shoreline functions or processes		Such uses may be the most appropriate uses for wetlands and their buffers. Permitted development impacts will be limited based on presence of wetlands and floodplain.
Open space, flood plain, or other sensitive areas that should not be more intensively developed		The majority of this reach is mapped wetland and floodplain. Development is restricted in these areas by critical area and flood regulations.
Potential for ecological restoration	I&C matrix: TCGDRS, 2007 ranked wetland sites 247, 249 and 167 a range of low to high environmental benefits. Riparian site 19 was ranked low for environmental benefit	
Retain important ecological functions, even though partially developed		TCGDRS, 2007 ranked wetlands in this reach as providing moderate benefit, and relatively high for ecological processes. Other parameters noted "at risk".
Potential for development that is compatible with ecological restoration		Development in much of this reach would be limited based on critical area protections.

Does not meet the designation criteria for the Natural environment.		Much of this reach does meet the criteria for the Natural environment.
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Shoreline Residential SED

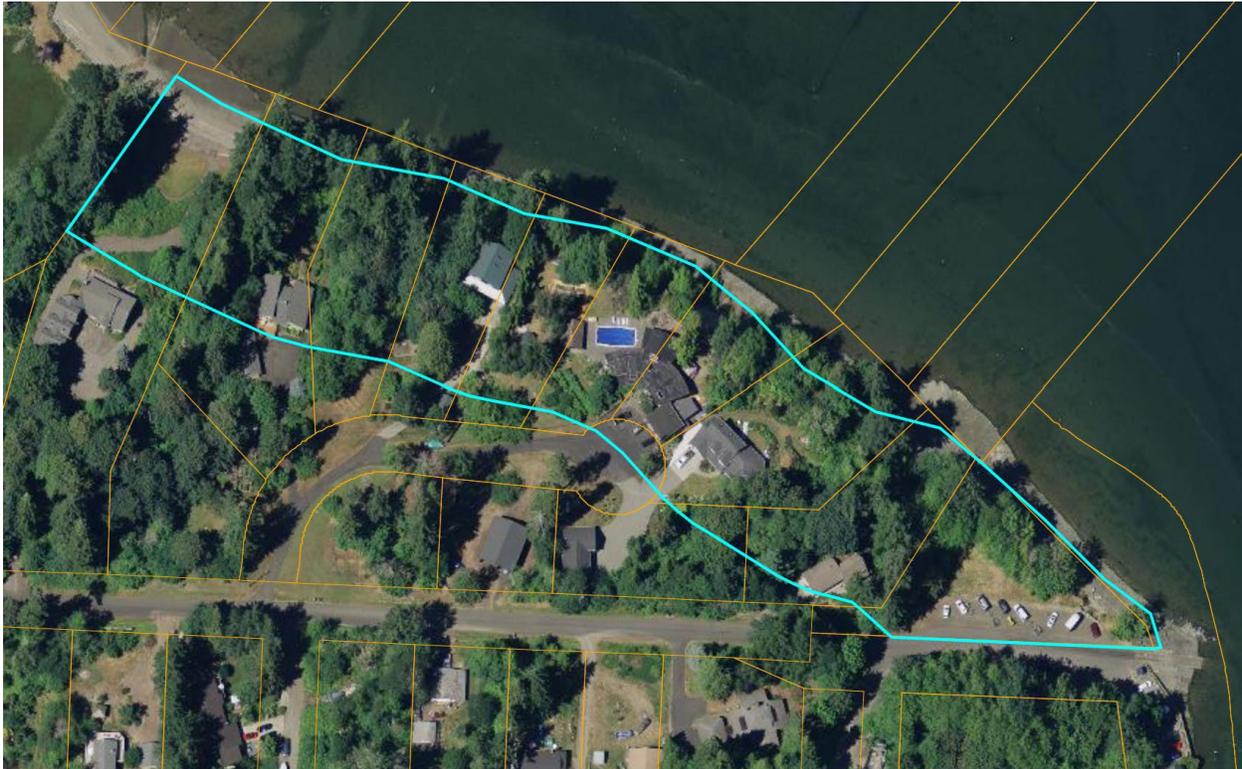
SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
Does not meet the criteria for the Natural or Rural Conservancy Environments.		4242 Kyro Rd. (Lot A) does not appear to meet the criteria for these designations. The other parcels meet some criteria of the Natural SED, particularly Lot C.
Predominantly single-family or multifamily residential development or are planned and platted for residential development.		4242 Kyro. Rd. contains residential development. 4244 Kyro Rd. is a 0.85 acre lot with area outside shoreline jurisdiction, and is adjacent to other residential lots, some also +/-1 acre in size. 4248 Kyro Rd. does not appear to contain residential structures and is over 14 acres in size.
Majority of the lot area is within the shoreline jurisdiction.		This is hard to estimate given that the mapping layer has not been updated since the boundary line adjustment, and GIS parcel shift occurs around lakes. The majority of 4242 Kyro Rd. appears to be within shoreline jurisdiction, and a portion of this lot is proposed to be Shoreline Residential. There is less clarity for the other lots. Staff notes the size of 4248 Kyro Rd. Even if a majority of the lot is in shoreline jurisdiction, a significant area remains outside shoreline jurisdiction on this parcel.
Ecological functions have been impacted by		Within the shorelands of Lot B/wetland buffer of Lot C, vegetation has been

<p>more intense modification and use.</p>		<p>removed, and cleared area maintained. The shoreline does not appear to be armored. There is one dock in the portion of Lot A that is already designated Shoreline Residential, along with a single-family home and garage. The portion of Lot C within shoreline jurisdiction does not appear to have been significantly modified.</p>
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Conclusions: The citizen’s request could be partially accommodated by shifting the reach break to the west to include the two smaller parcels (4242 and 4244 Kyro Rd., Lots A & B of the BLA). The presence of wetlands and floodplain will also control where development may occur on these parcels, regardless of assigned SED. The majority of area within mapped shoreline jurisdiction on the parcel at 4248 Kyro Rd. (Lot C) is vegetated, and is mapped as wetland or shorelands associated with Long Lake. This area is part of a larger wetland complex that comprises the majority of Reach LLO-5—LLO-6.

Staff Recommendation: At a minimum, staff recommends shifting the reach boundary LLO-5 to incorporate the entirety of 4242 Kyro Rd. (Lot A) into reach LLO-4—LLO-5. A designation of Shoreline Residential (and inclusion within Reach LLO-4—LLO-5) may also be appropriate for 4244 Kyro Rd. (Lot B), given this lot’s similarity to other lots in the area and its present configuration/uses. Staff recommends retaining a designation of Natural for 4248 Kyro Rd. (Lot C) given the intact nature of the area within shoreline jurisdiction on this parcel and the requirement to ensure no net loss of ecological functions.

SED Review Analysis: Nisqually Reach – MNI-21—MNI-22



Reach MNI-21—MNI-22. It is currently designated Rural, and proposed to be designated Rural Conservancy.

Current SED: Rural

Proposed SED: Rural Conservancy

Citizen Request: Shoreline Residential

Staff Analysis:

This reach of Puget Sound shoreline along Nisqually Reach is identified as MNI-21—MNI-22. During the recent public comment period, a citizen has requested a Shoreline Residential SED for this reach, stating that the criteria for this SED is more representative of the developed condition of this reach.

The following tables provide a review of the Rural Conservancy and Shoreline Residential designation criteria from the Thurston County SED Report, alongside information about Reach MNI-21—MNI-22 contained in the SED Report, Inventory & Characterization (I&C), and county GeoData mapping.

Rural Conservancy SED

SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
Outside incorporated municipalities and outside urban growth areas, AND at least one of the following:	SED report uses this criteria to support Rural Conservancy SED for this reach.	Yes – this area is outside incorporated municipalities and UGAs.
Currently supporting low-intensity resource based uses such as agriculture, forestry, or recreation.		To some extent. There is a boat launch parking area at the eastern end of this reach. Also, the citizen requesting the re-designation indicates that there is aquaculture occurring in this reach. Staff observed some evidence of aquaculture operations offshore in 2019 aerial photos.
Currently accommodating residential uses	<p>SED report uses this criteria to support Rural Conservancy SED for this reach.</p> <p>I&C matrix: Most of the shoreline exhibits fragmented forest cover adjacent to residential use plots.</p>	Yes, all lots appear to have residential development.
Supporting human uses but subject to environmental limitations, such as properties that include or are adjacent to steep banks, feeder bluffs, wetlands, flood plains or other flood prone areas	<p>SED report uses this criteria to support Rural Conservancy SED for this reach.</p> <p>SED report/I&C matrix list unstable slopes, steep slopes, potential landslide areas, past landslides.</p> <p>I&C matrix states “moderate bluff height” for this reach.</p>	<p>Yes. All parcels are mapped with steep slopes. Homes are mainly at 40-60’ above sea level.</p> <p>Ecology’s Coastal Atlas maps this area as a feeder bluff.</p> <p>A non-jurisdictional stream or drainage appears to drain into Puget Sound mid-reach.</p>

<p>Can support low-intensity water-dependent uses without significant adverse impacts to shoreline functions or processes</p>	<p>SED report: Prioritized low for forage fish habitat preservation/restoration.</p> <p>I&C states this reach is sand beach.</p> <p>From I&C report (excerpts): Nisqually Reach marine shoreline provides habitat for geoduck, Dungeness crab, and forage fish including smelt, sand lance, rock sole, and herring. The marine shoreline also provides habitat for bald eagle, blue heron and waterfowl concentrations. Southern Nisqually Reach is mapped as containing patchy eelgrass.</p>	<p>Low-intensity uses may be more appropriate given the degree of existing vegetation and potential feeder bluff presence. Steep slopes may limit new development. Development on beaches would need to account for impacts to achieve no net loss to forage fish and other habitat and sediment transport.</p>
<p>Private and/or publicly owned lands (upland areas landward of OHWM) of high recreational value or with valuable historic or cultural resources or potential for public access.</p>	<p>From I&C matrix: Public access within the reach: Nisqually Habitat Management Area owned by DFW with known public access</p>	<p>Yes, in parts of reach. Majority of reach does not appear to contain substantial public access potential. However, east end of reach is used for recreation and is adjacent to a WDFW boat launch. Entirety of Puget Sound is of cultural significance to area tribes.</p>
<p>Does not meet the designation criteria for the Natural environment.</p>		<p>This reach does not appear to meet the designation criteria for the Natural SED.</p>

Shoreline Residential SED

SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
<p>Does not meet the criteria for the Natural or Rural</p>		<p>Does not meet the criteria for Natural.</p>

Conservancy Environments.		Yes, does meet several Rural Conservancy criteria.
Predominantly single-family or multifamily residential development or are planned and platted for residential development.	From I&C: Nisqually Reach south to Nisqually Head contains low density residential development with associated impervious surfaces.	Yes. This reach has LAMIRD zoning (R1/2), and all lots appear to contain residential development except for one parcel. Most primary residential structures appear to be more than 50 feet from the mapped boundary of Puget Sound. Several are within 125 feet. However: This is not the OHWM.
Majority of the lot area is within the shoreline jurisdiction.		Yes. This appears to be the case for the vast majority of lots.
Ecological functions have been impacted by more intense modification and use.	<p>SED report: Prioritized low for forage fish habitat preservation/restoration.</p> <p>SED report: bulkheads mid-reach.</p> <p>From I&C matrix, for this reach: Most of the shoreline exhibits fragmented forest cover adjacent to residential use plots.</p> <p>From I&C: Around Nisqually Head and Luhr Beach, there are some small areas of built environment and non-forest vegetation within 100 feet of the shoreline.</p> <p>Characterized as Residential, undeveloped, aquatic</p> <p>From I&C: Nisqually Reach south to Nisqually Head contains low density residential development with associated impervious</p>	<p>Many homes are more than 50' from the mapped water body of Puget Sound (which is not the OHWM), with vegetation between them and the beach. Many structures are within the buffer that a Rural Conservancy SED would provide. Some appear to be outside that buffer area.</p> <p>The shorelands retain some vegetation—entirety of reach has not been developed in SMP jurisdiction.</p> <p>There are some bulkheads noted but the majority of reach appears to retain natural shoreline configuration, with minimal modifications.</p>

	<p>surfaces. MNI-21 to MNI-24 and MNI-25-MNI-26 contain the Nisqually Habitat Management Area owned by WDFW</p> <p>I&C lists southern Nisqually Reach as areas where docks are infrequent.</p> <p>From I&C matrix: Most of the shoreline exhibits fragmented forest cover adjacent to residential use plots.</p>	
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Conclusions: This reach contains residential development and some shoreline modifications. It also contains vegetated slopes, mapped feeder bluffs, and sandy beaches with large woody debris visible. It appears to meet the criteria for Rural Conservancy, as residential areas outside the UGA/incorporated cities, and with environmental limitations.

The area is currently designated Rural, though not all parcels are built out to the full extent this designation would allow. The existing conditions of this reach appear to more accurately reflect a designation of Rural Conservancy. Therefore, a designation of Rural Conservancy may be more appropriate to protect the existing conditions and aid in the SMP achieving its requirement of no net loss of ecological function.

Staff Recommendation: Based on review of criteria, retain a proposed designation of Rural Conservancy for this reach.

SED Review Analysis: Eld Inlet – MEL-02—MEL-03

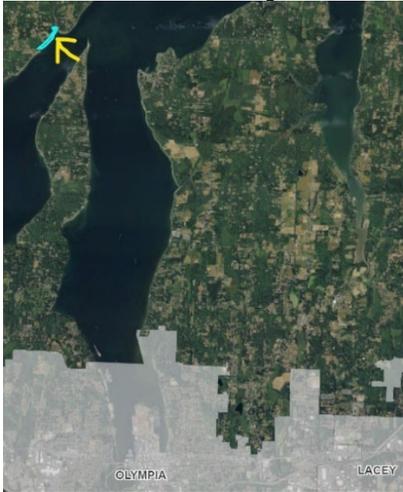


Fig. 1. General location of Reach MEL-02—MEL-03 on Eld Inlet, highlighted in light blue.



Fig. 2. Northern end of Reach MEL-02—MEL-03.



Fig. 3. Southern end of Reach MEL-02—MEL-03.

Current SED: Rural (Rural Conservancy for few parcels at north end)

Proposed SED: Shoreline Residential

Citizen Request: Natural

Staff Analysis:

This reach of Puget Sound shoreline on the west side of Eld Inlet is identified as MEL-02—MEL-03. During the recent public comment period, a citizen has requested the spit at the northern end of the reach remain as Rural Conservancy, and ideally to have the Rural Conservancy SED extend south ¼ mile from the north end of this reach. The concern is that the area is providing significant wildlife habitat, and land uses allowed in the Shoreline Residential SED could conflict with this.

The following tables provide a review of the Rural Conservancy and Shoreline Residential designation criteria from the Thurston County SED Report, alongside information about Reach MEL-02—MEL-03 contained in the SED Report, Inventory & Characterization (I&C), county GeoData mapping, and other sources. In addition, a portion of the reach is reviewed alongside criteria for the Natural SED.

Rural Conservancy SED

SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
Outside incorporated municipalities and outside urban growth areas, AND at least one of the following:		Yes
Currently supporting low-intensity resource based uses such as agriculture, forestry, or recreation.	None noted	Private recreation on individual parcels.
Currently accommodating residential uses	I&C matrix lists the following land uses: Undeveloped, residential, other-tidelands	Yes – dense development close to the water.
Supporting human uses but subject to environmental	I&C matrix notes unstable, stable, and intermediate slopes. It also notes steep	Most of reach is mapped with steep slopes. Many areas appear to be low bank.

limitations, such as properties that include or are adjacent to steep banks, feeder bluffs, wetlands, flood plains or other flood prone areas	slopes in the north end of the reach, and potential landslide area.	Estuarine/marine wetlands are mapped inside and outside of Sanders Cove. Reach is mapped within floodplain, which appears to encroach onto several lots upslope from the beach.
Can support low-intensity water-dependent uses without significant adverse impacts to shoreline functions or processes	Reach may contain the following species: smelt, rocksole. Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. SED report: High Priority restoration/preservation site for forage fish habitat, based on sediment source (north end of reach).	Such uses may be best suited to protecting ecological function of the more natural areas of this reach, including spit area.
Private and/or publicly owned lands (upland areas landward of OHWM) of high recreational value or with valuable historic or cultural resources or potential for public access.	No public access noted in I&C matrix.	Parcels have individual access to the shoreline. Public may access the area from the water, though private ownership of tidelands appears to extend below the OHWM. Unsure if there is general public access to sand spit from the water.
Does not meet the designation criteria for the Natural environment.		The sand spit area may meet the criteria for the Natural SED, but the rest of this reach does not appear to.

Shoreline Residential SED

SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
Does not meet the criteria for the Natural or Rural	SED report includes this criteria.	Yes. The majority of this reach does not appear to

Conservancy Environments.		meet the criteria of either of these SEDs.
Predominantly single-family or multifamily residential development or are planned and platted for residential development.	SED report includes this criteria. Also says: Estimated average set back less than 50 feet from OHWM.	Yes. Nearly all, if not all lots in this reach contain residential development.
Majority of the lot area is within the shoreline jurisdiction.	SED report includes this criteria.	Yes. This appears to be the case for almost all lots in this reach.
Ecological functions have been impacted by more intense modification and use.	<p>From SED report: Shoreline vegetation is comprised of trees and shrubs that extend upslope into mostly residential areas, with some areas of clearing to the shoreline</p> <p>I&C matrix notes bulkheads continuous throughout reach.</p> <p>I&C includes lists reach as "less degraded" (from Strategic Needs Assessment: Analysis of Nearshore Process Degradation in Puget Sound (Schlenger et al., 2011))</p> <p>From I&C: Restoration is recommended management strategy in vicinity of north end of reach (Puget Sound Water Characterization Mgmt Strategies (Stanley et al 2012))</p>	Yes. Along this reach, many lots have homes and appurtenances very close to the water, with significant vegetation clearing and numerous shoreline stabilization structures.

In addition, staff reviewed the criteria for the Natural SED as it relates to the sand spit within this reach.



Fig. 4. Sand spit and Sanderson Harbor within Reach MEL-02—MEL-03.

Natural SED

SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
Ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity.		Sand spit area and wetlands behind it appear to have been left in unaltered state in recent past, which suggests these areas may be ecologically intact.
Considered to represent ecosystems and geologic types that are of particular scientific and educational interest		The area contains a pocket estuary. Estuaries provide refuge and nursery habitat for fish species, as well as food sources for other animals, such as birds and predatory fish.
Unable to support new development or uses without significant adverse		Due to the intact nature of the area, new development could result in significant adverse ecological impacts. The area

impacts to ecological functions or risk to human safety.		in question is mapped in the floodplain and development could pose risks to human safety.
Includes largely undisturbed portions of shoreline areas such as wetlands, estuaries, unstable bluffs, coastal dunes, spits, and ecologically intact shoreline habitats.	Unstable slopes, steep slopes, and potential landslide areas noted in I&C matrix. SED report notes a stream delta and estuarine inlet mouth.	Yes – area is mapped as estuarine wetlands, and contains a sand spit. Sanderson Harbor is mapped as a pocket estuary by Ecology.
Retain the majority of their natural shoreline functions, as evidenced by shoreline configuration and the presence of native vegetation.		Shoreline configuration appears natural – this is a mapped accretionary land form. Staff have not been onsite to verify vegetation composition.
Generally free of structural shoreline modifications, structures, and intensive human uses.		Yes, the sand spit is generally free of structural modifications and intensive human uses.

Conclusions: The vast majority of this reach contains residential development close to the water (within 50 feet), with lawns, decks and bulkheads on most lots. A few lots at the north end of the reach, and the sand spit, appear to be less modified. Those lots are currently designated Conservancy, are larger, and have more vegetation present than what typical for this reach. However, modifications on these lots are visible within shoreline jurisdiction, and particularly within the buffer that would be provided by a Rural Conservancy SED.

This reach is currently designated Rural, and most of it has been developed accordingly. The sand spit does not appear to be built out, and appears to be generally ecologically intact. Therefore, a designation of Natural may be more appropriate to protect the existing conditions and aid in the SMP achieving its requirement of no net loss of ecological function. However, there are practical considerations to redesignating the spit. The spit is located in or adjacent to estuarine wetlands, and is in the mapped floodplain. Given its size and configuration, it is unlikely to support legal development.

Staff must also review some practicality considerations. The area in question is unlikely to be developed based on existing regulations. And providing designations at a sub-parcel scale is inconsistent with SED assignment in previous phases of the SMP update.

Staff Recommendation: Based on a review of designation criteria, existing regulations, and the process used to determine reach breaks for Thurston County's shorelines as a whole, retain a proposed designation of Shoreline Residential for the entire reach.

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SED Review Analysis: Green Cove, on Eld Inlet – Reaches MEL-28—MEL-29, 29-30, and 30-31

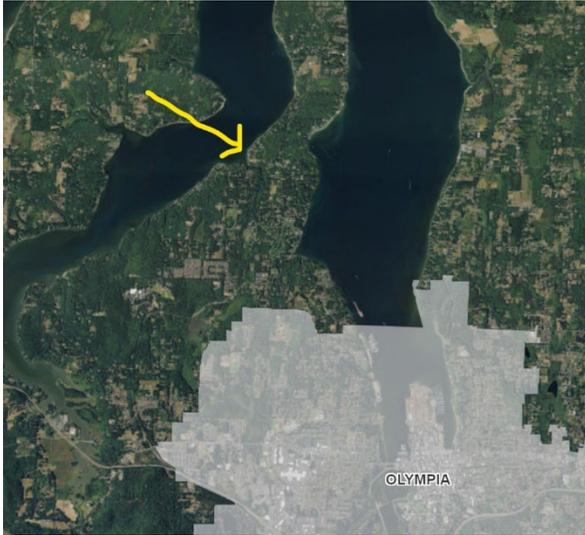


Fig. 1. General location of Green Cove on Eld Inlet, as indicated by yellow arrow.

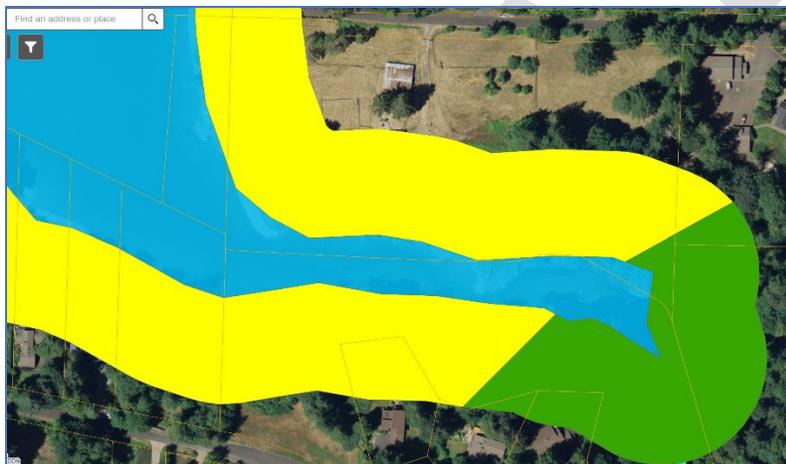


Fig 2. A portion of Reach MEL-30—MEL-31 (Yellow, top), MEL-29—MEL-30 (Green), and MEL-28—MEL-29 (Yellow, bottom).



Fig. 3. Aerial photo showing Green Cove, with estimated reach break lines. The area visible is the study area for this SED review.

Current SED: Conservancy

Proposed SED: Rural Conservancy and Natural

Citizen Request: Natural (for additional portions of Green Cove)

Staff Analysis:

Green Cove is located on Puget Sound, on the east side of Eld Inlet. Green Cove is included in portions of 3 reaches; MEL-30—MEL-31 at the north end, MEL-29—MEL-30 in the middle, and MEL-28—MEL-29 at the south end. All reaches are currently Conservancy. Reach MEL-29—MEL-30 is proposed to be designated Natural. During the recent public comment period, a citizen has requested the Natural SED for Reach MEL-29—MEL-30 be expanded, stating that Green Cove is “a rich and rare estuary, and is essentially wild...from the creek inlet to estuary mouth”. The concern expressed is that the area is not protected outside of the SMP, and there are important ecological functions that could be lost.

The following tables provide a review of the Natural and Rural Conservancy designation criteria from the Thurston County SED Report, alongside information contained in the SED Report, Inventory & Characterization (I&C), county GeoData mapping, and other sources about the areas of Green Cove adjacent to Reach MEL-29—MEL-30 (see “study area” in Figure 3, above).

Natural SED

SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
Ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity.	SED report states this for Reach MEL-29—MEL-30.	Somewhat – There are 3 parcels at the eastern end of Reach MEL-28—MEL-29 that appear to be somewhat intact, from aerial imagery, though no site visits have been performed to verify this. One is used for recreation, and two have single family residences. There are two parcels on the eastern end of Reach MEL-30—MEL-31 that have significant vegetation along the shoreline, though the outer half (estimated) of shoreline jurisdiction has had

		vegetation converted to lawn, and a house and appurtenances are visible. The east end of the larger parcel appears to be in a more natural state.
Considered to represent ecosystems and geologic types that are of particular scientific and educational interest	SED report states this for Reach MEL-29—MEL-30 (estuarine zone).	Yes – The whole area in question contains Green Cove, an estuary.
Unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.	I&C matrix lists unstable and stable slopes, and steep slopes, for Reach MEL-28/29, and MEL-30/31.	Some areas are more heavily vegetated than others. In these areas, new development could cause significant adverse impacts to ecological function. The entire area in question is mapped in steep slopes, which would be evaluated before development is permitted. Floodplain is mapped at toe of slopes.
Includes largely undisturbed portions of shoreline areas such as wetlands, estuaries, unstable bluffs, coastal dunes, spits, and ecologically intact shoreline habitats.	SED report states this for Reach MEL-29—MEL-30.	Many areas adjacent to Green Cove appear to be largely undisturbed, though tree canopy cover obscures view of the ground. Some disturbances are visible within shoreline jurisdiction, including residential structures and/or lawns. Green Cove is mapped as estuarine and marine wetland.
Retain the majority of their natural shoreline functions, as evidenced by shoreline configuration and	SED report states this for Reach MEL-29—MEL-30.	Many areas of Green Cove retain a native Douglas fir overstory. Condition and composition of understory is unknown. From aerial photographs, the shoreline configuration in this area appears unmodified.

the presence of native vegetation.		
Generally free of structural shoreline modifications, structures, and intensive human uses.	SED report states this for Reach MEL-29—MEL-30.	There is a mixture of conditions in the study area; 3 homes are in or adjacent to SMP jurisdiction. Associated clearing of vegetation for lawns/human use is evident in places.

Rural Conservancy SED

SED Criteria from SED Report	Inventory & Characterization/SED Report Information	Staff Analysis
Outside incorporated municipalities and outside urban growth areas, AND at least one of the following:	SED report states this for reaches MEL-28—MEL-29 and MEL-30—MEL-31.	Yes, Green Cove is outside the cities and UGAs.
Currently supporting low-intensity resource based uses such as agriculture, forestry, or recreation.	SED report states this for reaches MEL-28—MEL-29 and MEL-30—MEL-31 (aquaculture)	Parcel owned by the Green Park Community Club in MEL-28—MEL-29 is used for recreation.
Currently accommodating residential uses	SED report states this for reaches MEL-28—MEL-29 and MEL-30—MEL-31.	Yes, on some parcels
Supporting human uses but subject to environmental limitations, such as properties that include or are adjacent to steep banks, feeder bluffs, wetlands, flood plains or other flood prone areas	SED report states this for reaches MEL-28—MEL-29 and MEL-30—MEL-31.	Yes. Area is mapped with steep slopes. Floodplains are mapped at toe of slope.

Can support low-intensity water-dependent uses without significant adverse impacts to shoreline functions or processes	SED report states this for reaches MEL-28—MEL-29 and MEL-30—MEL-31.	This area may be best suited to such uses given the existing conditions.
Private and/or publicly owned lands (upland areas landward of OHWM) of high recreational value or with valuable historic or cultural resources or potential for public access.	SED report states this for reaches MEL-28—MEL-29 - Green Park Comm. Club	Parcel owned by the Green Park Community Club in MEL-28—MEL-29 is used for recreation. Other parcels have limited recreation potential and are in private ownership. The entirety of Puget Sound is of great cultural significance to area tribes.
Does not meet the designation criteria for the Natural environment.	SED report states this for reaches MEL-28—MEL-29 and MEL-30—MEL-31.	Portions of the area adjacent to Green Cove appear largely intact, though some structures and vegetation conversion are visible within SMP jurisdiction.

Conclusions: As a whole, reaches MEL-28—MEL-29 and MEL-30—MEL-31 appear to best meet the Rural Conservancy criteria. Reach MEL-29—MEL-30 appears to best meet criteria for the Natural SED.

In evaluating whether to expand Reach MEL-29—MEL-30 to encompass surrounding area within the Natural SED, staff notes some areas appear intact, but there is a lack of information about the condition of the understory in this area. Modifications are visible within the area that would be provided by the Natural buffer on several parcels.

Staff note that the eastern portion of APN 12933220400 may meet the designation criteria for Natural (in Reach MEL-30—MEL-31). However, due to practicality considerations and to be consistent with the overall SED assignment process that has occurred to date, staff generally prefer to avoid placing reach breaks in the middle of parcels. In Reach MEL-28—MEL-29, staff is aware of public use of one of these parcels, and residential development on adjacent parcels in the study area. However, the shoreline appears to retain much ecological function as evidenced by vegetation presence and shoreline configuration.

Staff recommendation: This area (outside Reach MEL-29—MEL-30) is currently designated Conservancy, and portions are developed accordingly. However, portions of the study area appear to better meet the criteria for the Natural SED. Reach Break

MEL-30 should be realigned to match the eastern parcel boundary of APN 12933220400 (residential parcel along north side of Green Cove). Reach Break MEL-29 should be moved west to the western boundary of APN 42520100000 (parcel owned by the Green Park Community Club).

Inclusion of additional area within Reach MEL-29—MEL-30, with a proposed Natural SED, is appropriate to protect the existing conditions and aid in the SMP achieving its requirement of no net loss of ecological function. All other portions of the study area should retain a designation of Rural Conservancy based on development pattern.

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