Final Consistency Report
Jefferson County SMP Update

Prepared for:
Jefferson County Department of Community Development

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Introduction

Jefferson County is updating the Shoreline Master Program (SMP) to comply with the Washington State Shoreline Management Act (SMA or the Act) requirements (RCW 90.58), and the state's shoreline Guidelines (Washington Administrative Code [WAC] 173-26), which were adopted in 2003.

This Consistency Report documents the level of consistency between the state guidelines and the Draft SMP developed, but not adopted by the County in 2000. It also describes the consistency between the County's preliminary shoreline inventory and analysis report[1] and state requirements for the amendment of shoreline master programs (WAC 173-26, Part III). The report outlines specific areas that need to be redrafted and/or reconsidered in light of the 2003 Guidelines. The Consistency Report will be used in conjunction with the Integration Strategy (prepared under separate cover) to guide the development of the updated SMP.

Consistency of the 2000 Draft SMP

In July 2000, Jefferson County completed the *Draft Jefferson County Shoreline Master Program* (SMP) as an update to its previously adopted SMP. While the 2000 draft SMP provided a comprehensive package of recommended changes to goals, policies, regulations and administration, formal adoption by the County was delayed in anticipation of the revisions to the shoreline guidelines contained in WAC 173-26.

Under a grant from Ecology, Jefferson County has now embarked on the development of a revised SMP to comply with the requirements of WAC 173-26. The 2000 draft SMP will be the foundation for this revision process, and this memorandum provides a consistency review, comparing Jefferson County's 2000 draft SMP with Chapter 173-26 WAC, the Shoreline Master Program Guidelines.

The Shoreline Management Act (RCW 90.58) and the Guidelines comprise standards and criteria to be used by Ecology in reviewing the adoption and amendment of local master programs under RCW 90.58.090. According to WAC 173-26-171, the Guidelines have three specific purposes. First, they assist local governments in developing master programs, and second, along with the policy of RCW 90.58.020, serve as criteria for state review of local master programs under RCW 90.58.090. Finally, the Guidelines contain parameters, standards and review criteria for local master programs, allowing local governments substantial discretion to adopt master programs that reflect local

[1] *Jefferson County Shoreline Master Program Update: Shoreline Inventory and Analysis Report prepared* by Neil Harrington of the Jefferson County Department of Community Development and last revised October 25, 2005.

circumstances and other regulatory and non-regulatory programs related to the goals of shoreline management.

Adolfson planners reviewed the Jefferson County's 2000 draft SMP to evaluate the level of consistency of the SMP with the Guidelines. This review specifically compared individual components of the Guidelines and the SMP including master program elements, environment designations, general provisions, shoreline modifications, and shoreline uses. Some of the key issues emerging from this review are summarized below, while more detailed findings are summarized in Table 1.

Overall, the 2000 draft SMP provides a good foundation from which to develop a revised Program. Many of the regulations for modifications and specific uses, for example, are fairly complete, and many other existing components such as exemptions, elements and environment designations are largely in alignment with the Guidelines.

Master Program Elements

WAC 173-26-191(b) states that master programs shall, where appropriate, incorporate various 'elements' into the program. These elements, derived from the Shoreline Management Act (90.58.100(2) RCW), address economic development; public access; recreation; circulation; shoreline use; conservation; and historic, scientific and educational resources.

Jefferson County's existing 2000 draft SMP is largely consistent with this provision of the Guidelines, as it contains all of the elements specified by the Guidelines in its Chapter 3, Master Program Elements: Goals and Policies. While not explicitly specified in the Guidelines, there are opportunities to add a 'restoration' element to help support policies, regulations and programs addressing restoration throughout the revised SMP.

Similarly, the Guidelines suggest that local jurisdictions consider adding a flood hazard reduction element. Comprehensive flood hazard reduction has been identified in this review as an opportunity for improvement in the 2000 draft SMP, and adding such an element could help provide a framework for adding new policy language and regulations.

No Net Loss of Ecological Functions

WAC 173-26-201(c) notes that the Guidelines are designed to assure, at a minimum, "no net loss" of ecological functions necessary to sustain shoreline natural resources and to plan for restoration of ecological functions where they have been impaired. Master programs shall contain policies and regulations to meet these "no net loss" goals through its environment designation system, policies and regulations for shoreline uses and modifications, critical area policies and regulations, and mitigation measures.

The existing 2000 draft SMP contains various references to avoiding adverse impacts to ecological functions, fish and wildlife habitat, and other resources, but there are substantial opportunities to incorporate the principle of no net loss of ecological functions throughout the document, in both policies and regulations.

Environment Designations

WAC 173-26-211 contains basic requirements for classifying environment designations in local shoreline master programs. Environment designation classification systems are to be based on existing use patterns, the biological and physical character of the shoreline, and the goals and aspirations of the local jurisdiction. The Guidelines recommend a system composed of six basic environments: High Intensity, Shoreline Residential, Urban Conservancy, Rural Conservancy, Natural and Aquatic. The Guidelines indicate that local governments should assign environment designations consistent with the corresponding designation criteria for each environment, and that they should assure the protection of ecological functions be consistent with policies for restoration of degraded shorelines. Alternate designation systems are permitted as long as they are consistent with the purposes and policies of the Guidelines. Parallel environments may also be used.

The 2000 draft SMP contains seven shoreline environment designations, several of which closely align with the Guidelines in purpose and designation criteria. For example, the SMP contains both Natural and Aquatic shoreline environments, as well as a Rural Conservancy designation that closely parallels the criteria in the Guidelines. The Urban Residential designation also closely resembles the criteria for the Shoreline Residential environment in the Guidelines.

The 2000 draft SMP contains a Public Conservancy designation intended for shorelines in public ownership. While this is not a specific environment designation included in the Guidelines, this designation appears to be consistent with the Guidelines. The County may also consider adding a comparable Urban Conservancy environment designation to the SMP to address shorelines in more urban areas of the County where significant ecological functions still persist.

Finally, the Guidelines contain a High Intensity environment designation, while the 2000 draft SMP contains two "high intensity" designations, Urban High Intensity and Rural Intensive. Both of the SMP designations appear to be consistent with the purpose and designation criteria for High Intensity in the Guidelines. Specifically, the Guidelines call for assigning this designation to urban growth areas and "rural areas of more intense development" if they currently support or are suitable and planned for high-intensity water-oriented uses.

Flood Hazard Reduction and Channel Migration Zones

WAC 173-26-221(3) contains provisions for developing policies and regulations to reduce flood damage or hazard, and for addressing uses, development, and shoreline

modifications that may increase flood hazards. Applicable shoreline master programs should include provisions to limit development and modifications that would interfere with the natural process of channel migration that may cause significant impacts to property or public improvements and result in a net loss of ecological functions. The Guidelines call for giving preference to non-structural over structural flood hazard reduction measures, for basing flood hazard reduction provisions on applicable comprehensive watershed and flood hazard management plans, and for integrating regulations with other flood hazard management regulations. Restoration is also encouraged.

The 2000 draft SMP provisions for flood hazard management are contained in policies and regulations for "flood hazard management projects" in Chapters 6 and 9. There appear to be substantial opportunities to augment the SMP with a broader strategy to address uses and development in both channel migration zones and flood hazard areas. This strategy would also include greater integration with comprehensive flood hazard management plans and programs.

Critical Areas

Protection of the ecological functions of critical areas is a key component of the Guidelines. In accordance with WAC 173-26-221(2), shoreline master programs must manage critical areas located in the shoreline jurisdiction with policies and regulations that provide a level of protection that is at least equal to that provided by the local government's critical area regulations adopted under the Growth Management Act.

There are significant opportunities to update the 2000 draft SMP with respect to critical areas. While the SMP contains policies for wetlands, fish and wildlife habitat areas, geologic hazard areas, and critical saltwater habitats, specific regulations are absent for many of these elements. Specifically, the Program does not include specific regulations for wetlands, geologic hazard areas, aquifer recharge areas, or frequently flooded areas. The SMP does include regulations for critical saltwater habitats, and what appear to be regulations that address some elements for critical freshwater habitats.

In the 2000 SMP's critical area policies and regulations, there are also opportunities to expand on the protection and restoration of ecological functions as well as to improve links to ecosystem-wide processes. Policies and regulations could also be supported by references to a "full spectrum" of planning measures to protect critical areas, including regulatory and non-regulatory approaches. To ensure equivalent levels of protection with the County's critical area regulations outside of the shoreline, the SMP could simply include those regulations by reference, or develop new regulations more closely tailored to conditions in the shoreline jurisdiction.

Incentives/Restoration

WAC 173-26-201(f) specifies that master programs shall include goals, policies and actions for restoration of impaired shoreline ecological functions. Provisions should be designed to achieve overall improvements in ecological functions over time.

While a substantial portion of restoration planning will occur in the restoration plan prepared for the update of the County's SMP, there are opportunities to support such restoration planning through policy and regulatory language. Specifically, policies could be added to the SMP, either in a new restoration element or elsewhere, to encourage restoration through a combination of mitigation strategies, incentives, permit streamlining and non-regulatory approaches. Provisions could also be added to specific use regulations to encourage restoration using a combination of these approaches.

Other Issues

Other opportunities for building on the existing 2000 Master Program include the following:

- Developing more integration between public access provisions in the SMP and County's plans for parks and trails.

- More specifically addressing vegetation conservation, including more explicit policies for vegetation conservation, specific vegetation conservation setback requirements, and vegetation conservation provisions in use regulations.

Table 1 Consistency Review of the 2000 Draft Jefferson County SMP

WAC Element	WAC Guidelines	Existing SMP
173-26-211 (4) and (5): Environment Designation System	1. For each environment designation, state purpose, classification criteria, and management policies. 2. Regulations shall address permitted, prohibited, and conditional uses; height and bulk limits; setbacks; density and frontage; and site development standards. 3. Six recommended environments: High Intensity, Shoreline Residential, Urban Conservancy, Rural Conservancy, Natural, and Aquatic.	1. Chapter 5 of the existing draft SMP is generally consistent in format and content. 2. Chapter 5 includes a slightly different system of environment designations than WAC 173-26-211(4)(c), which is consistent as long as designations meet the requirements of the guidelines. 3. The existing draft SMP provides uses and activity regulations for each shoreline environment in Table 8.020. 4. The existing draft SMP has seven environments instead of six. These include: Aquatic, Natural, Public, Rural Conservancy, Rural Intensive, Urban Residential, and Urban High-Intensity. 5. The existing plan's "Public Conservancy" environment closely resembles the "Urban Conservancy" as described in WAC 173-26-211(5)(e), but does not address private open space, floodplains, and other sensitive lands. There are opportunities to add an "Urban Conservancy" environment designation to the SMP for shorelines in urban growth areas that have sensitive resources or significant ecological functions intact. 6. The existing draft SMP's urban residential shoreline designation appears to align with the shoreline residential designation in the guidelines. 7. The existing SMP has a "Rural Intensive" environment, which is not described in the guidelines, but appears to meet the intent of the high intensity environment designation. 8. The guidelines include restoration of degraded shoreline as a purpose for the Aquatic, Natural, Urban/Public Conservancy Environments, and Rural Conservancy environments. The existing SMP does not specifically mention restoration in purpose statements for each environment designation.

WAC Element	WAC Guidelines	Existing SMP
173-26-221 (1): Archaeological and Historic Resources	1. Include policies and regulations to protect historic, archaeological, and cultural features and qualities. 2. Require stop work and notification of OAHP and tribes for resources uncovered during excavation. 3. Require site inspection or evaluation by a professional archaeologist for sites with documented archaeological resources.	1. Sections 3.080 and 8.040 of the existing draft SMP contain goals, policies and regulations that are generally consistent with WAC 173-26-221.
173-26-221(2): Critical Areas, Generally	1. SMPs must provide for management of critical areas designated by GMA in the shoreline jurisdiction. Provide equivalent level of protection to critical area regulations adopted pursuant to GMA. 2. Protect ecological functions and ecosystem-wide processes. 3. Establishes that the planning objective for critical areas should be "the protection of existing ecological functions and ecosystem-wide processes and restoration of degraded ecological functions and ecosystem-wide processes."	1. The existing draft SMP policies do not specify objectives for protection and restoration of ecological functions and ecosystem-wide processes. 2. The existing draft SMP does not require that in addressing issues related to critical areas management in the shoreline that scientific and technical information must be used per guidelines. 3. The existing draft SMP does not explicitly specify using "the full spectrum of planning and regulatory measures" in protecting and restoring critical areas, including the Comprehensive Plan; inter-local watershed plans; local development regulations; and state, tribal, and federal programs. 4. The draft SMP does not provide policies for the protection of critical fresh water habitats.

WAC Element	WAC Guidelines	Existing SMP
173-26-221(2)(c)(i): Wetlands	1. Regulations shall achieve, at a minimum, no net loss of wetland area and functions, including temporal losses when the wetland does not perform an intended function. 2. Wetlands shall be categorized based on the rarity, irreplaceability, or sensitivity to disturbance and the functions the wetland provides. 3. Master program provisions addressing alterations to wetlands shall be consistent with the policy of no net loss of wetland area and functions, wetland rating, scientific and technical information, and the mitigation sequence defined in WAC 173-26-201(2)(e). 4. Master programs shall contain requirements for buffer zones around wetlands. Buffer requirements shall be adequate to ensure that wetland functions are protected and maintained in the long-term. 5. Master programs shall contain wetland mitigation requirements that are consistent with WAC 173-26-201(2)(e) and which are based on a wetland's rating.	1. Wetlands are addressed in the existing draft SMP in Chapter 4 (4.040) and Chapter 8 (8.060). 2. Wetland policies in the existing SMP are generally consistent with the guidelines, but the draft SMP does not contain wetland regulations. 3. The existing SMP does not establish a wetland rating system based on rarity, irreplaceability, or wetland functions. 4. Buffers and mitigation requirements are not specified in the draft SMP.
173-26-221(2)(c)(ii): Geological Hazardous Areas	1. Development in designated geologically hazardous areas shall be regulated in accordance with the following: i. Consult minimum guidelines for geologically hazardous areas, WAC 365-190-080(4). ii. Do not allow new development or the creation of new lots that would cause foreseeable risk from geological conditions to people or improvements during the life of the development. iii. Do not allow new development that would require structural shoreline stabilization over the life of the development. iv. Exceptions may be made for the limited instances where stabilization is necessary to protect allowed uses, where no alternative locations are available and no net loss of ecological functions will result.	1. The existing SMP provides policies for Geological Hazardous Areas in Chapter 4 (4.040), but does not provide regulations of activities or uses in them. 2. Policies are generally consistent with the guidelines, with the exception that the guidelines allow some shoreline stabilization in geologically hazardous areas, where certain circumstances apply and a geotechnical report is prepared. The draft SMP does not include any regulations for geologically hazardous areas, although some specific use standards address setbacks from bluffs and other related issues.
173-26-221(2)(c)(iii): Critical Saltwater Habitat	1. Critical saltwater habitats include kelp beds; eelgrass beds; spawning and holding areas for forage fish, such as herring, smelt and sandlance; subsistence, commercial and	1. Critical saltwater habitat policies are provided in Chapter 4 (4.040) of the existing draft SMP; regulations are provided in Chapter 8(8.060).

WAC Element	WAC Guidelines	Existing SMP
	recreational shellfish beds; mudflats; intertidal habitats with vascular plants; and areas with which priority species have a primary association. 2. Management planning should address the following, where applicable: i. Protecting a system of fish and wildlife habitats with connections between larger habitat blocks and open spaces, and restoring such habitats and connections where they are degraded; ii. Protecting existing and restoring degraded riparian and estuarine ecosystems, especially salt marsh habitats; iii. Establishing adequate buffer zones around areas to separate incompatible uses from the habitat areas; iv. Protecting existing and restoring degraded nearshore habitat; degraded or lost salmonid habitat; and degraded upland ecological functions important to critical saltwater habitats, including riparian vegetation; v. Improving water quality; vi. Protecting existing and restoring degraded sediment inflow and transport regimens; and vii. Correcting activities that cause excessive sediment input where human activity has led to mass wasting. 3. Establish several specific standards regarding docks, bulkheads, bridges, fill, floats, jetties, utility, crossings, and other structures that potentially intrude over critical salt water habitat; 4. In conjunction with state resource agencies and affected Indian tribes, governments should classify critical saltwater habitats and protect and restore seasonal ranges and habitat elements with which federal-listed and state-listed endangered, threatened, and priority species have a primary association and which, if altered, may reduce the likelihood that a species will maintain its population and reproduce	2. The existing draft SMP does not include mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association as critical saltwater habitats. 3. The existing draft SMP does not address resource management planning for several recommended items (protecting connections between habitat blocks, protecting and restoring salt marsh habitats, etc.) 4. The existing draft SMP does not establish policies or regulations that "protect and restore seasonal ranges and habitat elements with which federal-listed and state-listed endangered, threatened, and priority species have a primary association. 5. The existing draft SMP does not identify habitats or species of local importance. 6. The SMP does not have an explicit policy addressing docks, bulkheads, and other structures within critical saltwater habitat. 7. The existing draft SMP does not establish specific buffer zones around critical saltwater habitats, although Table 8.020 provides setbacks by environment designation and for specific uses.

WAC Element	WAC Guidelines	Existing SMP
	over the long term; 5. Governments, in conjunction with state resource agencies and affected Indian tribes, should determine which habitats and species are of local importance; 6. Comprehensive saltwater habitat management planning should identify methods for monitoring conditions and adapting management practices to new information.	
173-26-221(2)(c)(iv): Critical Freshwater Habitat	1. Critical freshwater habitats include portions of streams, rivers, wetlands, and lakes, their associated channel migration zones, and flood plains designated as such. 2. Applicable master programs shall contain provisions to protect hydrologic connections between water bodies, watercourses, and associated wetlands. 3. Restoration planning should include incentives and other means to restore water connections that have been impeded by previous development. 4. Master program provisions for river and stream corridors should, where appropriate, be based on the information from comprehensive watershed management planning where available. 5. Master programs shall provide for the protection of ecological functions associated with critical freshwater habitat as necessary to assure no net loss. 6. Where appropriate, master programs shall integrate protection of critical freshwater habitat, protection with flood hazard reduction and other river and stream management provisions. 7. Master programs shall include provisions that facilitate authorization of appropriate restoration projects.	1. The existing SMP provides policies for fish and wildlife habitat (including salmonid habitats) in Chapter 4 (4.040), but does not have explicit policies for critical freshwater habitats. 2. The existing SMP's critical freshwater habitat regulations in Section 8.060 appear to apply only to areas "with which priority species have a primary association." 3. The guidelines require that critical fresh water habitat regulations address stream channels, associated channel migration zones, wetlands, and flood plains, to the extent such areas are in the shoreline jurisdictional area. Channel migration zones are not explicitly addressed in the draft SMP. 4. While the draft SMP does include provisions for restoration projects, there are opportunities to include more explicit recognition of other incentive programs that may be used to protect critical freshwater habitats.
173-26-221(3): Flood Hazard Reduction	8. Development in floodplains should not significantly or cumulatively increase flood hazard or be inconsistent with a comprehensive flood hazard management plan 9. New development, including subdivisions, should not be established where the need for structural flood hazard measures in floodway or channel migration zone (CMZ) is reasonably foreseeable.	1. The existing draft SMP does not have specific sections for goals, policies, and development regulations addressing flood hazard reduction, although activities in floodplains and other flood prone areas are addressed under sections on flood hazard management projects. 2. The existing draft SMP does not explicitly address CMZs.

WAC Element	WAC Guidelines	Existing SMP
	10. Potentially appropriate uses in the CMZ or floodway include restoration activities, forest practices, existing and ongoing agriculture not further restricting channel movement, mining, bridges, utilities and transportation projects with no feasible alternative, repair and maintenance of existing legal uses, modifications and additions to existing non-agricultural legal uses that do not further limit channel migration; development in UGAs with existing structures to prevent channel movement and flooding; and measures to reduce shoreline erosion that does not interfere with natural processes. 11. Allow new flood hazard reduction measures in the shoreline only when demonstrated as necessary to protect existing development, that non-structural measures are not feasible, vegetation can be conserved, and ecological functions mitigated to achieve no net loss. 12. Place new measures landward of associated wetlands and vegetation conservation areas unless the measures are intended to increase ecological functions (e.g. wetland restoration). 13. Require new measures to incorporate public access where there are no unavoidable safety, security, or environmental impacts and costs are not disproportionate. 14. Require biological/geomorphologic study for gravel removal. Extraction should have long-term benefit for flood hazard reduction, should not result in loss of ecological function, and should be part of comprehensive flood hazard management solution.	3. Flood hazard reduction measures are consistently addressed as Flood Hazard Management Projects in Chapters 6 and 9 (6.060 and 9.030) of the existing draft SMP. 4. The existing draft SMP does not address the integration of SMP flood management actions with applicable watershed management plans, comprehensive flood hazard management plans, and other comprehensive planning efforts. 5. Gravel removal is addressed under policies and regulations for mining. Mining is prohibited in floodways but flood hazard reduction is not specifically addressed. 6. Public access must be considered for all shoreline permits but is not specifically addressed for flood hazard reduction projects.
173-26-221(4): Public Access	1. Promote and enhance public access to waters held in public trust. 2. Protect rights of navigation and space for water dependent uses. 3. Protect public opportunity to enjoy physical and aesthetic shoreline qualities, including views. 4. Regulate permitted uses to minimize interference with public use of water	1. The existing draft SMP includes public access goals and polices as an SMP element in Chapter 3 (3.030). 2. The existing draft SMP also provides public access goals and policies in Chapter 8 (8.090 physical access and 8.140 visual access). 3. There is no specific section on public access regulations in the existing SMP; however, public access regulations are included throughout the existing program. The draft

WAC Element	WAC Guidelines	Existing SMP
	5. Local governments should plan for integrated public access system. 6. Address public access on public lands. 7. Require public shoreline development to include public access measures in developments unless incompatible, or alternate public access planning replaces site by site requirements. 8. Provide public access standards for water enjoyment, water related, and non-water dependent uses and subdivision into more than four parcels unless addressed by a public access planning process, or there are incompatibility issues. Consider alternate methods such as off-site improvements, viewing platforms, separation of uses, and restriction of hours. 9. Minimize impacts to existing views from public property or substantial numbers of residences. Give priority to water dependent uses where there is conflict. 10. Assure no net loss of ecological functions.	SMP calls for encouraging linkages with linear park and recreation systems. 4. There are opportunities to incorporate the County's existing plans for public access, trails, parks, and open space into policies and regulations for public use.
173-26-221(5): Vegetation Conservation	1. Include planning and regulatory provisions to address vegetation conservation and restoration. 2. Use available scientific information to establish vegetation conservation regulations. 3. Establish standards through setbacks, buffers, clearing and grading, incentives, environment designation standards, or other provisions. 4. Pruning and management of noxious weeds should be allowed.	1. Vegetation conservation is addressed in Chapter 4 (4.060) and Chapter 8 (8.130) of the existing draft SMP. 2. Vegetation conservation is also addressed in various other sections of the existing draft SMP including the provisions for clearing and grading, and for residential development. 3. Specific mitigation requirements for lost vegetative cover are not addressed in the existing SMP. The draft SMP does encourage use of native species, and limitations on clearing on landslide and erosion hazard areas. 4. The existing SMP does not have a policy requiring the use of "available scientific and technical information" in establishing vegetation conservation regulations. **5.** The existing SMP does not discuss vegetated setback or buffer requirements in its vegetation management regulations (8.130), although Table 8.020 provides general setback provisions.

WAC Element	WAC Guidelines	Existing SMP
173-26-221(6): Water Quality, Stormwater, and Nonpoint Pollution	1. Prevent impacts to water quality and storm water quality, or significant impacts to aesthetic qualities and recreational opportunities 2. Ensure consistency with other water quality and quantity regulations.	1. Water quality is addressed in Chapter 4 (4.080) of the existing draft SMP. Section 4.050 generally addresses policies for protection of water quality in shorelines. 2. Section 4.080 does not explicitly address "significant impacts to aesthetic qualities and recreational opportunities." 3. Section 4.080 generally directs the SMP to insure mutual consistency between SMP regulations and other federal, state, and local regulations that address water quality.
173-26-231: Shoreline Modifications, Generally	1. Allow structural shoreline modifications only where demonstrated to be necessary to support a primary use, legally existing use in danger of loss or damage, or for mitigation or enhancement. 2. Limit number of modifications and reduce effects. 3. Allow modifications appropriate to shoreline type and environmental conditions. 4. Ensure no individual or cumulative loss of ecological functions. 5. Base decisions on scientific information and comprehensive drift cell or reach analyses. 6. Plan for enhancement of impaired ecological functions, and incorporate measures to protect functions and ecosystem processes. 7. Employ mitigation sequencing.	1. The existing SMP has one goal to eliminate the need for shoreline modifications generally. 2. Chapters 7 and 10 address shoreline modification activities and establish goals, policies and regulations. The provisions in 7.010 through 7.020 are in general consistent with the guidelines. 3. Specific inconsistencies between the provisions of the guidelines and the existing draft SMP and provided below in 173-26-231(3)(a) through (g).
173-26-231(3)(a): Shoreline Modifications, Shoreline Stabilization	1. Locate new development, including subdivisions, to avoid need for shoreline stabilization where feasible. Provide setbacks for steep slopes and bluffs, and discourage impacts to down-current properties and shoreline areas. 2. Prohibit new structural stabilization except when necessary as demonstrated by the provisions in WAC 173-26-231(3)(a)(iii)(b)(I through IV): i. When necessary to protect primary structures using a geotechnical analysis, and when there is no let loss of ecological functions.	1. Shoreline modifications are addressed in the existing SMP in Chapters 7 (7.030) and 10 (10.030), which address bulkheads, seawalls, and revetments. 2. The goals, policies, and regulations addressing bulkheads, seawalls, and revetments in the existing SMP are generally consistent with the provisions of the guidelines. 3. The guidelines require that SMPs provide for setbacks for steep slopes and bluffs. The existing draft SMP addresses feeder bluffs, but does not address steep slopes.

WAC Element	WAC Guidelines	Existing SMP
	ii. For new non-water dependent development when erosion is not being caused by upland conditions, when nonstructural measures are infeasible or insufficient, and need is shown through a geotechnical report and damage is caused by natural processes; allow no net loss of ecological function. iii. For water dependent development, when erosion is not being caused by upland conditions, when nonstructural measures are infeasible or insufficient, and need is shown through a geotechnical report; allow no net loss of ecological function. iv. For restoration or hazardous remediation projects, nonstructural measures are not feasible, and erosion will not result in net loss of ecological functions. v. Existing stabilization structures may be replaced where there is a demonstrated need to protect principal uses. Structures should be designed and located to assure no net loss of ecological functions. vi. Replacements shall not encroach waterward of OHWM unless structure was occupied before 1992 and there are safety or environmental concerns. Then, new stabilization shall abut existing stabilization structure. vii. Remove existing structure where there area impacts to critical saltwater habitats. viii. Soft shore stabilization should be permitted waterward of OHWM ix. Additions to or increases in size shall be considered new structures. x. Geotechnical reports should estimate time frames and rates of erosion to demonstrate need and urgency for hard armoring (structure will be damaged within three years), or that waiting will foreclose opportunities. xi. Limit structural measures to the minimum necessary if soft approaches are	

WAC Element	WAC Guidelines	Existing SMP
	demonstrated to be infeasible. xii. Publicly financed measures shall not restrict public access unless infeasible. xiii. Mitigate effects of new measures on sediment conveyance systems in sediment producing areas.	
173-26-231(3)(b): Shoreline Modifications, Piers and Docks	1. Allow new piers and docks only for water dependent uses or public access. 2. Restrict to minimum size necessary to meet needs of use. 3. Water related and water enjoyment uses are allowed as part of mixed-use development on over water structures if auxiliary and supportive of water dependent uses. 4. Demonstrate need to support water dependent uses for new piers and docks. 5. Needs analysis of port district or other public or commercial entity is sufficient to demonstrate need if approved by local government. 6. Require new residential development of two or more dwellings to provide joint use. 7. Avoid impacts to ecological functions, critical areas and processes. 8. Piers and docks shall be made of material approved by state agencies.	1. Piers and docks are addressed in Chapters 6 (6.050) as "shoreline uses and activities" and in Chapter 9 (9.010) as "boating and marina facilities." 2. Existing policies do not restrict piers, docks and floats be restricted to the minimum size necessary to meet the needs of the proposed water-dependent use. 3. The existing draft SMP does not specify that piers, docs and floats may only be allowed for water-dependent uses or public access (there are several exceptions). 4. The remaining regulations in section 9.010 are largely consistent with the guidelines. Joint use of docks and appropriate use of materials are addressed.
173-26-231(3)(c): Shoreline Modifications, Fill	1. Locate, design and construct to protect shoreline ecological functions and ecosystem wide processes, including channel migration 2. Only allow fill waterward of OHWM for water dependent use, public access, cleanup of contaminated sediments as part of cleanup plan, approved disposal of dredged material, expansion or alteration of transportation facilities of statewide significance where there are no alternatives, mitigation, restoration action, beach nourishment or enhancement. Waterward fills should require a conditional use permit.	1. Provisions for shoreline fill are addressed along with dredging in Chapters 7 (7.060) and 10 (10.050). 2. The goals and policies concerning fill in the existing SMP are generally consistent with guidelines. 3. The SMP does not address channel migration zones in regulating fill activities. 4. The regulations regarding fill in Chapter 10 are largely consistent with guidelines. 5. Waterward fills are specified as a conditional use.

WAC Element	WAC Guidelines	Existing SMP
173-26-231(3)(d): Shoreline Modifications, Breakwaters, Jetties, Groins, and Weirs	1. Shall be allowed waterward of OHWM only where necessary to support water dependent uses, public access, shoreline stabilization, or other public purpose. 2. Should require conditional use permit except for ecological restoration 3. Protect critical areas and use mitigation sequencing.	1. Goals and policies for breakwaters, jetties, weirs and groins are provided in Chapter 7 of the existing SMP (7.030), regulations are provided in Chapter 10 (10.020). 2. The existing draft SMP policies do not specify that breakwaters, jetties, weirs and groins shall be allowed only where necessary to support water-dependent uses, public access, shoreline stabilization, or other specific public purpose. 3. The existing draft SMP regulations are consistent with guidelines. 4. Breakwaters, jetties, groins and weirs are specified as conditional uses.

WAC Element	WAC Guidelines	Existing SMP
173-26-231(3)(e): Shoreline Modifications, Beach and Dunes Management	1. Provide for diverse and appropriate use of beach areas consistent with values and natural limitations. 2. Use setbacks to protect qualities.	1. The existing SMP does not address beach and dunes management specifically. No setbacks are established. 2. Beaches are addressed in other sections of the existing draft SMP. Shoreline stabilization measures are restricted if they are likely to cause significant erosion or beach starvation (10.030). Beach restoration and enhancement is addressed in 10.040.
173-26-231(3)(f): Shoreline Modifications, Dredging and Dredge Material Disposal	1. Avoid and minimize significant ecological impacts; mitigate to assure no net loss of ecological function. 2. Site new development to avoid, or if not minimize need for new maintenance dredging. 3. Allow dredging to establish, expand, or reconfigure channels and basins only where necessary to support existing navigational uses, with minimization and mitigation of impacts. 4. Restrict maintenance of established channels and basins to previously dredged areas. 5. Prohibit dredging waterward of OHWM for primary purpose of obtaining fill except for restoration. Fill must be placed waterward of OHWM. Must be associated with MTCA and CERCLA, or with a conditional use for other significant habitat enhancement project. 6. Include provisions for use of dredge material to benefit shoreline resources. Provide for implementation of adopted regional plans. 7. Discourage disposal in shorelands, wetlands, or CMZs. When allowed, require a conditional use permit.	1. Dredging and dredged material are addressed in the existing draft SMP in Chapters 7 (7.060) and 10 (10.050). 2. In general the goals, policies and regulations in the existing program regarding dredging and dredged material disposal are consistent with the guidelines. 3. The existing draft SMP does not specifically mention MTCA or CERCLA projects.
173-26-231(3)(g): Shoreline Modifications, Breakwaters, Shoreline Habitat and Natural Systems Enhancement Projects	1. Foster habitat and natural system enhancement projects. 2. Assure that projects have legitimate restoration needs and priorities.	1. Shoreline habitat and natural systems enhancement projects are addressed in the existing draft SMP in Chapters 7 (7.050) and 10 (10.040) as "Bioengineering and Beach Restoration and Enhancement."
173-26-241(3)(a): Agriculture	1. Employ specific meanings in WAC 173-26-020(3). 2. Include provisions for new agricultural activities on lands not meeting definitions, conversion of agricultural lands to other uses, and other development not considered an	1. Goals and policies for agriculture in the shoreline jurisdiction are provided in Chapter 6 (6.010) of the existing draft SMP. Agricultural development regulations are provided in Chapter 9 (9.100).

WAC Element	WAC Guidelines	Existing SMP
	agricultural activity. 3. New agricultural activities should be consistent with environment designation. 4. Agricultural uses and development shall assure no net loss of ecological functions and no significant adverse impact on shoreline resources and values. 5. Base buffers on scientific and technical information and management practices adopted by state agencies.	2. The policies in section 6.010 do not include provisions addressing conversion of agricultural lands to other uses, and other developments on agricultural land that do not meet the definition of agricultural activities. per WAC 173-26-241(3)(a)(ii). 3. The agriculture development regulations are generally consistent with the guidelines. 4. Buffers are provided in Table 8.020.
173-26-241(3)(b): Aquaculture	1. Should not be permitted where it would result in net loss of ecological function, impact eelgrass or algae, or conflict with navigation or water dependent uses. 2. Design to avoid spread of disease, establishment of non-native species, or significant effects to aesthetic qualities. 3. Impacts should be mitigated using mitigation sequencing.	1. The existing SMP addresses aquaculture in Chapters 6 (6.020) and 9 (9.100). 2. The existing SMP does not have policies or regulations requiring the avoidance or spread of disease to native aquatic life or the establishment of new nonnative species.
173-26-241(3)(c): Boating facilities	1. Facilities should be located only at sites with suitable environmental conditions, shoreline configuration, access, and neighboring uses. 2. Facilities should meet health, safety, and welfare requirements. 3. Aesthetic impacts should be avoided or mitigated. 4. New marinas should provide public access, particularly for associated water enjoyment uses 5. Impacts from live-aboards should be minimized. 6. Facilities should not result in a net loss of ecological functions. 7. Navigation rights should be protected. 8. Extended mooring on waters of the state should be restricted with state lease or permission. Impacts to public access and navigation should be minimized.	1. The existing SMP addresses boating facilities in Chapters 6 (6.030) and 9 (9.010). 2. The goals policies and regulation addresses boating facilities in the existing draft SMP are consistent with the guidelines.
173-26-241(3)(d): Commercial development	1. Give preference to water dependent uses over non-water dependent uses; second, give preference to water-related and water enjoyment uses over non-water oriented uses. 2. Uses authorized as water related or water enjoyment shall incorporate design and operational elements to meet	1. The existing SMP addresses commercial development in Chapters 6 (6.040) and 9 (9.020). 2. The existing draft SMP policies do not specify that public access and ecological restoration should be considered as potential mitigation of impacts to shoreline

WAC Element	WAC Guidelines	Existing SMP
	definitions 3. Public access should be required and ecological restoration considered as mitigation unless infeasible. Public access should be required for uses on public land. 4. Non-water oriented uses should be prohibited unless part of a mixed-use project that includes water dependent uses and provides significant public benefit, or if navigability is severely limited at the site. 5. Non-water oriented uses may be allowed if the site is physically separated from the shoreline by another property or public right-of-way. 6. Non-water dependent uses should not be allowed over water except in existing structures, or where auxiliary to and supportive of water dependent uses. 7. Regulations shall assure no net loss of ecological functions or significant adverse impact to navigation, recreation, public access, or other shoreline uses, resources and values.	resources and values from shoreline commercial development. 3. The existing draft SMP policies encourage that water-dependent uses should have priority over non-water dependant uses. 4. Regulations state that applicants must disclose whether or not the project is a water-dependent use, but there are no apparent and specific regulations pertaining to water dependency.
173-26-241(3)(e): Forest practices	1. Regulations apply to Class IV-General forest practices where shorelines are being converted or are expected to convert to non-forest uses. 2. Assure no net loss of ecological functions, maintain hydrologic system, and avoid significant adverse impacts to other shoreline uses, resources, and values. 3. Ensure consistency with environment designation. 4. Harvest shall be limited to selective removal; require conditional use permits for other harvest. 5. Include designated forest lands in natural or rural conservancy environment designation.	1. Forest practice goals and policies are contained in Chapter 6 (6.050); regulations are contained in Chapter 9 (9.100). 2. The existing SMP does not reference state rules for management of forest practices. 3. The existing SMP does not specifically address Class IV-general forest practices and other forest practice conversions to non-forest uses. Selective harvesting is mentioned in the context of preserving scenic views.
173-26-241(3)(f): Industry	1. Give preference to water-dependent uses over non-water dependent uses; second, give preference to water-related uses over non-water oriented uses. 2. Consider regional and statewide needs for water dependent and water-related facilities; avoid shorelines with severe environmental limitations. 3. Assure no net loss of ecological functions, avoid significant	1. Industry is addressed in Chapters 6 (6.080) and 9 (9.040). 2. The existing SMPs does not specifically state in policy that preference shall be given to water-dependent industrial uses over non-water-dependent industrial uses. 3. The existing SMP does not specifically encourage industrial development to locate where environmental cleanup and restoration of the shoreline area can be

WAC Element	WAC Guidelines	Existing SMP
	adverse impacts to other shoreline resources and values. 4. Developments should consider public access as mitigation unless infeasible due to interference or hazards. Public access should be required for developments on public land. 5. Encourage development and redevelopment where cleanup and restoration can be incorporated 6. Non-water oriented development should be prohibited except when part of a mixed-use project including water-dependent uses, and when it provides significant public benefit; or if navigability is severely limited. 7. Non-water oriented use may be allowed if the site is physically separated from the shoreline by another property or public right-of-way	incorporated. May not be applicable in Jefferson County. 4. Preferences for some non-water dependent industrial development under certain conditions are not included in the existing SMP. Non-water-oriented uses are prohibited. 5. The existing industrial development regulations are, in general consistent with the guidelines.
173-26-241(3)(g): In-stream structural uses	1. Provide for protection and preservation of ecosystem-wide processes, functions, and cultural resources. 2. Give consideration to the full range of public interests, functions, processes, and environmental concerns. Emphasize protecting and restoring priority habitats and species.	1. In-stream structures are addressed by the existing SMP in Chapters 6 (6.090) and 9 (9.050). 2. The existing draft SMP in-stream structure goals, policies, and regulations are generally consistent with the guidelines.
173-26-241(3)(h): Mining	1. Identify where mining may be an appropriate use based on the environment designation, local designation of mineral resource lands with long-term significance, and dependence on shoreline location. 2. Avoid and mitigate adverse impacts to achieve no net loss of ecological functions based on final reclamation plan. Prefer proposals that create, enhance, or restore habitat for priority species. 3. Coordinate provisions and permit requirements with 78.44 RCW. 4. Assure consistency of subsequent use with environment designation; assure appropriate ecological functions for setting. 5. Prohibit mining in active river channels unless impacts to natural gravel transportation processes, significant impacts to priority species, and net loss of ecological functions are	1. Mining is addressed by the existing SMP in chapters 6 (6.100) and 9 (9.050). 2. The existing SMP does not state explicitly that preference will be given to mining proposals that result in the creation, restoration, or enhancement of habitat for priority species. 3. The existing SMP does not address provisions for new mining in active river channels. Scalping of gravel from stream bars is considered a conditional use.

WAC Element	WAC Guidelines	Existing SMP
	avoided. Determinations shall be consistent with RCW 90.58.100(1) and WAX 173-26-201(2)(a). Integrate evaluations with SEPA process. 6. Require compliance for renewal, extension, or reauthorization of gravel bar and other in-channel mining. 7. Require conditional use permits for mining in a channel migration zone.	
173-26-241(3)(i): Recreational development	1. Recreational development should be given priority related to access to and enjoyment of the water and shorelines. 2. Commercial recreational development should be consistent with commercial development provisions. 3. Public recreational development shall be consistent with environment designation and result in no net loss of ecological functions or ecosystem-wide processes 4. Reflect that state-owned shorelines are suited for wilderness beaches, ecological study areas, and other public recreational uses. 5. Policies shall be consistent with growth projections and level of service standards.	1. Recreational development is addressed by the existing draft SMP in chapters 6 (6.140) and 9 (9.070). 2. The existing SMP does not reflect that state-owned shorelines are particularly adapted to providing wilderness beaches, ecological study areas, and other recreational uses for the public. 3. Other recreational development regulations are, in general consistent with the guidelines.

WAC Element	WAC Guidelines	Existing SMP
173-26-241(3)(j): Residential development	1. Include policies and regulations to assure no net loss of ecological functions. 2. Provisions should include regulations for setbacks, buffer areas, density, armoring, vegetation conservation, and on-site sewage systems. 3. Development should be set back from steep slopes and erosion-prone shorelines to avoid the need for structural stabilization. 4. Over-water residences should be prohibited. 5. New multi-unit development including subdivision for four or more parcels should provide community or public access. 6. Require plats and subdivisions to assure no net loss of ecological functions at full build-out. 7. Require avoidance of the need for new stabilization and flood hazard reduction measures.	1. Residential development is addressed by the existing SMP in Chapters 6 (6.150) and 9 (9.090). 2. The existing SMP does not have a policy requiring that plats and subdivisions be designed, configured and developed in a manner that assures that no net loss of ecological functions. 3. The existing draft SMP does not include policies specifying that creation of new lots through land division should prevent the need for new shoreline stabilization or flood hazard reduction measures that would cause significant impacts to other properties or public improvements, or a net loss of shoreline ecological functions. 4. The residential development regulations in Chapter 9 are generally consistent with the guidelines. 5. The existing SMP residential development regulations do not explicitly address land division.
173-26-241(3)(k): Transportation and parking	1. Include policies and regulations to provide safe, reasonable, and adequate circulation to, through, and over shorelines. 2. Plans and projects shall be consistent with public access plans and policies, and environmental protection regulations. 3. Include systems for pedestrian, bicycle, and public transportation where appropriate. 4. Plan, design, and locate facilities with least possible effects on shoreline features, to avoid net loss of ecological functions, and to avoid impacts to planned water-dependent uses. Options outside the shoreline jurisdiction should be explored. 5. Allow parking only as accessory to an authorized use. 6. Minimize environmental and aesthetic impacts.	1. Transportation and parking facilities in the shoreline are addressed in separate sections in the existing draft SMP. 2. Parking goals and policies are provided in Chapter 6 (6.120) and parking regulations are provided in Chapter 8 (8.090). 3. Transportation goals and policies are provided in Chapter 6 (6.160) and regulations are provided in Chapter 9 (9.110). 4. The parking goals, policies, and regulations are generally consistent with the guidelines. 5. The existing draft SMP includes a policy recommending that transportation facilities include public access where possible and assure no net loss of shoreline ecological functions. 6. The existing transportation development regulations are, in general, consistent with the guidelines.
173-26-241(3)(l): Utilities	1. Onsite utilities serving a primary use are accessory and considered part of primary use. 2. Design and locate to assure no net loss of ecological functions, preserve landscape, and minimize conflicts with	1. The existing SMP establishes primary utility goals and policies in Chapter 6 (6.170). Regulations for accessory utilities are located in Chapter 8 (8.120) and regulations for primary utilities are location in Chapter 9 (9.120).

WAC Element	WAC Guidelines	Existing SMP
	existing and planned land uses. 3. Prohibit utility production and processing facilities that are non-water-oriented unless there is no other feasible option. 4. Locate transmission facilities outside of the shoreline where feasible; assure no net loss of ecological function when in the shoreline. 5. Use existing rights-of-way where possible. 6. Discourage pipelines and cables, and facilities requiring periodic maintenance in tidelands except when no other feasible alternative. Assure facilities do not result in loss of ecological functions or other significant impacts.	2. The existing SMP does not provide policies prohibiting utility production and processing facilities, transmission facilities, and development of facilities that may require periodic maintenance which disrupts shoreline ecological functions. 3. The existing SMP accessory utility regulations are generally consistent with the guidelines. 4. Regulations governing primary utilities in the existing draft SMP do not discourage several utility facility types and uses in the shoreline including production and processing facilities, transmission facilities, and pipelines and cable on tidelands.

Consistency of the Shoreline Inventory and Analysis Report

Adolfson reviewed the *Jefferson County Shoreline Master Program Update: Shoreline Inventory and Analysis Report* for consistency with state requirements for the amendment of shoreline master programs (WAC 173-26, Part III). The report was authored by Neil Harrington of the Jefferson County Department of Community Development and was last revised October 25, 2005. Adolfson planners and biologists reviewed the report in the context of specific guidelines and requirements established in WAC 173-26-201, entitled "Comprehensive process to prepare or amend shoreline master programs."

Issues for consideration and discussion are outlined below. Table 2 documents in more detail our review of the Shoreline Inventory and Analysis Report for each water body and/or marine shoreline segment discussed in the Report. The table identifies the elements that are addressed in the Report, highlights elements that are missing, and provides general recommendations to consider during development of the updated inventory and characterization.

Overall, the Inventory and Analysis Report reflects a significant amount of work by County staff. The Report includes much information that will be helpful in ensuring consistency with the WAC guidelines and in updating the County's Shoreline Master Program.

Shoreline Inventory and Analysis Report Organization

The current Report includes a basic introduction with a brief discussion of regulatory context and reach break rationale, and a minimal description of the methods used. The shoreline inventory follows. The inventory is organized by basin beginning in the southeast portion of the County and continuing counterclockwise through the southwest portion of the County. Lakes are included in each appropriate river basin but addressed separately in the inventory.

Inventory headings for marine shoreline segments generally include ecological background, shoreline alterations, restoration opportunities, public access, and preliminary reach breaks. Inventory headings for river and stream shoreline segments include anadromous fish use, anadromous fish habitat, restoration opportunities, and preliminary reach breaks.

A more complete introductory section would expand on the discussion of regulatory context and include a more comprehensive methods section as described below. Following this introduction, we suggest including a large part of the existing introduction in a new Landscape Analysis section, with a regional overview of landscape controls such as climate and topography and major shoreline features, and a discussion of data gaps.

To facilitate analysis of ecosystem functions and processes, we suggest organizing stream segments by Water Resource Inventory Area (WRIA). For each WRIA, condition of the watershed and an overview of processes and functions would be summarized in a table. Organizing the inventory in this manner would not change the overall order of the shoreline segments.

In addition, more closely following the inventory elements identified in WAC 173-26-201 could achieve a more consistent organization of individual marine and freshwater shoreline segments. In general, we envision each shoreline segment inventory could include a basin overview, followed by a section identifying preliminary shoreline reaches, which would then be discussed in detail. Lakes would be included within their respective basins. The physical environment and biological resources would be described for each shoreline segment. A discussion of land use and altered conditions would follow, which would include land use and zoning, transportation and utilities, shoreline modifications, and public access. Finally, we suggest inserting a section presenting an ecological functions and processes analysis for each shoreline segment, which would relate to potential restoration opportunities and contribute to the overall functions and processes analysis tables for each WRIA.

Mapping

The current Shoreline Inventory and Analysis Report includes 20 maps on 8.5" x 11" sheets. One map shows the western portion of the County at a coarse scale (approximately 1:230,000). The eastern portion of the County is shown on 19 maps at varying scales (from approximately 1:63,360 to 1:47,500). The existing map series includes aerial photography, drift cells, reach break boundaries for marine reaches, and text boxes identifying areas of special interest (e.g., important feeder bluffs, marinas, public access sites). Generally, the mapping provides a good framework for understanding the location of regulated shorelines and the general land cover and development patterns across the landscape. The use of text boxes is informative, but not uniformly used (e.g., some shoreline parks and recreational areas are identified, but not all are shown).

Maps do not show the approximate extent of the shoreline jurisdiction as a horizontal plane; for example, floodways and associated wetlands are not included in the mapping of the shoreline jurisdiction. The mapping also does not specifically address inventory elements as distinct themes or map series (e.g., zoning and land use; designated critical areas). To avoid development of an unwieldy map folio, we suggest developing thematic maps at a scale that would allow all of the County's shorelines to be shown on two or three sheets. Additionally, a new map series would be developed to illustrate the landscape analysis at a Countywide scale. These maps would depict landforms and factors that control and influence ecosystem-wide processes across the landscape (e.g., topography, geology, soils, precipitation, land cover) as well as other important areas and altered areas.

Inventory Elements

The Shoreline Inventory and Analysis Report was reviewed to determine which elements described in WAC 173-26-201(3)(c), entitled "Inventory shoreline conditions," are addressed and whether or not there are opportunities to expand the existing discussion or include missing elements in the update. Each element is described below. The table in Table 2 addresses these elements in greater detail for each regulated water body and/or marine shoreline segment.

- *Shoreline and adjacent land use patterns; transportation and utility facilities; impervious surfaces; vegetation; shoreline modifications; water-oriented uses (173-26-201(3)(c)(i)).*

Generally, there are opportunities in the existing Shoreline Inventory and Analysis Report to more consistently discuss elements of the built environment and their effects on shoreline functions. There is, for example, no consolidated discussion of land use patterns and associated impervious surfaces. For some resources, land use and land cover are discussed at a watershed scale. For other resources, land ownership and uses are described at the reach scale. Transportation facilities are sporadically discussed, usually in the context of impairment to a specific resource. Vegetation, when discussed, is generally related to riparian condition, and shoreline modifications are discussed in detail for the marine shoreline only (bulkheads, docks and piers, etc.). Marinas and other water-dependent uses are generally identified for marine shorelines, and overall, there is much more detailed information for marine shorelines, providing an opportunity to expand on freshwater shorelines (rivers, streams, lakes, and non-estuarine wetlands).

- *Critical areas (including wetlands, aquifer recharge areas, fish and wildlife conservation areas, geologically hazardous areas, channel migration zones, and frequently flooded areas/floodplains) (173-26-201(3)(c)(ii) and (vii)).*

The Shoreline Inventory and Analysis Report describes some critical areas (e.g., estuarine wetlands associated with river/stream mouths; feeder bluffs that may be regulated as landslide hazard areas). There are, however, opportunities to provide a more comprehensive discussion and mapping to describe the location and function of critical areas across the landscape and adjacent to the shoreline.

- *Degraded areas and sites with potential for ecological restoration (173-26-201(3)(c)(iii).*

The Shoreline Inventory and Analysis Report generally discusses restoration opportunities in the context of site-specific structural fixes in the shoreline jurisdiction. There are opportunities to provide a more comprehensive discussion of restoration objectives or priorities, as well as a discussion of opportunities outside the shoreline jurisdiction.

- *Areas of special interest, such as priority habitats, developing or redeveloping harbors and waterfronts, previously identified toxic or hazardous material clean-up sites, dredged material disposal sites, or eroding shorelines (173-26-201(3)(c)(iv).*

The Shoreline Inventory and Analysis Report identifies some of these elements for different water bodies or segments of the marine shoreline. There is generally more detail focused on habitat and habitat conditions for the marine environment, and there are opportunities to add a more specific and comprehensive discussion of federally or state listed species or protected habitats. The Report includes occasional discussion of waterfront areas that are experiencing development pressure. Hazardous materials/contaminated sites and dredge disposal sites are not discussed. Eroding shorelines are referenced in the context of marine feeder bluffs, but not riverine channel migration zones.

- *Conditions and regulations in shoreland and adjacent areas (173-26-201(3)(c)(v).*

Zoning designations are described occasionally at a watershed or basin scale. There are opportunities to identify and discuss in more detail comprehensive land use, zoning designations, existing shoreline environment designations, and other land use regulations to identify potential conflicts between the condition of shoreline resources and potential development. Surface water management regulations should be considered, specifically in urbanizing or designated urban growth areas to identify applicable detention and water quality treatment requirements for new development and potential impacts on or benefits to shoreline resources.

- *Existing and potential shoreline public access sites, including public rights of way and utility corridors (173-26-201(3)(c)(vi).*

Generally, public access locations are identified consistently throughout the Report but are not consistently mapped. The Report also identifies the type of recreational uses in some places but not others (e.g., shellfishing, boating, camping), and the potential for new or expanded public access is not addressed. Information from the County's applicable long-range plans for parks and open space could be more effectively integrated as it relates to shorelines.

- *Rapidly developing shorelines, cumulative impacts from historic development (clearing and grading, bulkhead construction, intrusive development on priority habitats), and conversion of shorelines to nonwater-oriented uses (173-26-201(3)(c)(ix).*

The Shoreline Inventory and Analysis Report includes a general introduction section that provides a regional context, but there is no discussion of historic development patterns and use activities that have altered the landscape. This discussion could be included as part of the ecosystem-wide processes discussion. For the marine environment, the Report provides a fair amount of detail on the extent of bulkheads and other shoreline modifications and their general effects on habitats, but it does not specifically identify locations where development of non-water-oriented uses has occurred.

- *If archaeological or historic resources have been identified in shoreline jurisdiction, consult with the state historic preservation office and local affected Indian tribes regarding existing archaeological and historical information. (173-26-201(3)(c)(x).*

The Shoreline Inventory and Analysis Report does not identify or address the location or extent of cultural resources. Shoreline areas (riverine and marine) are generally high probability areas for archaeological resources. We suggest integrating any available Countywide inventories of historic and/or archaeological resources into the Report.

- *Gaps in existing information. During the initial inventory, local governments should identify what additional information may be necessary for more effective shoreline management. (173-26-201(3)(c)(viii).*

The Report occasionally notes the lack of data or research for a given location or topic area. We recommend developing a separate "data gaps" chapter to specifically address information that is not readily available but would more effectively aid the development and implementation of the County's Shoreline Master Program.

Characterization of Functions and Ecosystem-wide Processes

The existing Report was reviewed to determine which elements described in WAC 173-26-201(3)(d)(i) entitled, "Characterization of functions and ecosystem-wide processes," are addressed and whether or not there are opportunities to expand discussion or include missing elements in the update. Each element is described below.

- *Hydrologic: Transport and storage of water; storing, transporting and stabilizing sediment across the natural range of flow variability; attenuating flow, wave and tidal energy; developing pools, riffles, gravel bars; removing excessive nutrients and toxic compounds; recruitment and transport of large woody debris and other organic material.*

The Shoreline Inventory and Analysis Report occasionally notes where floodplains have been cut off due to shoreline armoring and, blocking culverts and roads, although it generally relates the function of floodplains to salmonid habitat. Restrictions to tidal exchange in the marine environment from docks and road crossings are also occasionally noted but are not consistently related to habitat functions. Dams and water diversions are introduced, but their effects on shoreline functions and processes are not analyzed on either a shoreline segment or ecosystem-wide scale.

- *Shoreline Vegetation: maintaining temperature; removing excessive nutrients and toxic compounds, sediment removal and stabilization; attenuation of flow and wave energy; and provision of large woody debris and other organic matter.*

Generally, the Report does not address this element except for the occasional reference to the shoreline vegetation functions of bluff stabilization and providing large woody debris to rivers and streams. A connection was not usually drawn between riparian condition and streams and rivers listed on the 303(d) list for water temperature, excessive nutrients, or poor fish habitat. There are also opportunities to address the function of vegetation in shorelines in providing shading for spawning forage fish.

- *Hyporheic functions: removing excessive nutrients and toxic compound, storing water and maintaining base flows, support of vegetation, and sediment storage.*

The Report does not identify or address shoreline conditions in relation to hyporheic functions.

- *Habitat for native aquatic and shoreline-dependent birds, invertebrates, mammals; amphibians; and anadromous and resident native fish: Habitat functions may include but are not limited to; space or conditions for reproduction; resting, hiding and migration; and food production and delivery.*

This element was commonly mentioned in relation to salmonids, but infrequently for birds, invertebrates, mammals, or amphibians. The Report does not include a comprehensive discussion of habitat functions or processes at an ecosystem scale.

Methods and Approach for Landscape-scale Assessment

We suggest that the landscape-scale assessment of the marine shoreline consider a variety of factors that influence shoreline conditions in Jefferson County, including:

- *Process controls such as surficial geology, landforms, topography, and bathymetry;*
- *Oceanographic processes;*
- *Nearshore processes including net shore-drift patterns and fluvial influences;*
- *Circulation, nutrient dynamics, sediment transport and heat/light transport across the landscape;*
- *Coastal bluff landslides; and*
- *Land use.*

We suggest basing the landscape characterization approach for non-marine shorelines (including estuaries and freshwater rivers, streams and lakes) in part on the landscape analysis guidance developed by Stephen Stanley, Susan Grigsby, and Jenny Brown of the Ecology's Shorelands and Environmental Assistance Program (Ecology publication #05-06-027). The landscape characterization approach attempts to answer four questions:

- *What are the key landscape processes that maintain aquatic/shoreline resources and their functions?*
- *Which geographic areas within Jefferson County are most important for maintaining each key process?*
- *How have human activities/land use altered important process areas and to what extent have the key processes been impaired?*
- *Which areas have potential for sustaining or improving resource function through protection and/or restoration?*

We suggest that the approach to characterizing landscape-scale processes consist of several steps, which are described below:

Step 1: Identify Aquatic Resources and their Contributing Areas;

Step 2: Identify Key Landscape Processes;

Step 3: Identify Process-Intensive Areas;

Step 4: Identify Process Alterations;

Step 5: Identify Responses to Process Alterations; and

Step 6: Synthesize Information to Identify Restoration and Conservation Opportunities.

Table 2 Consistency Review: Jefferson County Inventory and Analysis Report

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Marine					
Fulton Creek nearshore	√	√	1. Complete description of drift cell segments, especially geology, riparian vegetation, eelgrass distribution, & salmon use 2. Some description of critical areas 3. Shoreline alterations include vacation homes, boat ramps and staircases, bulkheading and fill 4. Public access well addressed, but scattered through discussion 5. Begins to relate current conditions to processes & functions	1. No overview of shoreline segment 2. Minimal information on existing land use & transportation features 3. No discussion of zoning, impervious area, future land use designations or current Shoreline Environment Designation, hazardous waste, or new public access opportunities 4. No discussion of other infrastructure and utilities (outfalls, pipelines) 5. Restoration opportunities focused on structural repairs, salmon habitat 6. No discussion of data gaps, wetlands or priority habitats, water quality, archaeological/ historical resources, shellfish resources within the public shellfishing site, wildlife use 7. No mapping or focused discussion of regulated critical areas	1. Clarify segment boundaries – Map 3 shows 6 reach breaks; they are listed at end of chapter but text is organized around 2 drift cells 2. Units of measurement could be made more consistent (miles, km, meters, yards, etc.) 3. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 4. Suggest addressing likelihood of development pressure in the future for adjacent lands
Duckabush River & Black Point	√	√	1. Provides overview of major shoreline features 2. Complete description of drift cell	1. Minimal information on existing land use and transportation features 2. No discussion of zoning, impervious	1. Text/map identify 9 marine reaches - if kept, we suggest including length of each

[2] This shoreline segment is identified as a Shoreline of the State in the Washington Administrative Code (WAC) Chapter 173-18 streams and rivers constituting shorelines of the state, Chapter 173-20 lakes constituting shorelines of the state, or Chapter 173-22 Shoreland area designation criteria
[3] This shoreline segment was addressed in the *Jefferson County Shoreline Master Program Update: Shoreline Inventory and Analysis*, dated October 25, 2005
[4] Inventory Elements as identified in the *Washington State Shoreline Master Program Guidelines*, WAC 173-26-201(3)

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
			segments, especially geology, delta habitat, eelgrass distribution, and fish & wildlife use 3. Shoreline alterations include rail boat launches, Hwy 101 & side roads, bulkheading, docks at Quatsop Pt and Pleasant Harbor, staircases, marina 4. Begins to relate shoreline alterations to processes & functions (shade, channel constriction, etc.) 5. Public access discussed 6. Historic resource – National Register of Historic Places bridge	area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 3. No discussion of other infrastructure and utilities (outfalls, pipelines) 4. Minimal information on water quality 5. Does not describe rare plant communities identified on Map 3 6. Data gaps –archaeological resources 7. Restoration opportunities focused on structural repairs 8. No mapping or focused discussion of regulated critical areas	2. Units of measurement could be made more consistent (miles, km, meters, yards, etc.) 3. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 4. Recommend addressing likelihood of development pressure in the future for adjacent lands
Dosewallips River and Brinnon shoreline	√	√	1. Partial overview of major shoreline features 2. Complete description of drift cell segments, especially geology, riparian vegetation, eelgrass distribution, and fish & wildlife use 3. General description of land use pattern 4. Complete description of shoreline alterations, including staircases, structures in upper intertidal, derelict barge, Hwy 101, bulkheading & private boat ramps 5. Public access discussed 6. Limited analysis relating shoreline alterations to processes & functions (sediment transport, forage fish spawning, channel migration)	1. No description of water quality 2. Limited description of transportation features 3. Restoration opportunities focused on structural repairs 4. Data gaps not identified 5. Archaeological/historical resources not discussed 6. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 7. No discussion of other infrastructure and utilities (outfalls, pipelines) 8. No mapping or focused discussion of regulated critical areas	1. Units of measurement could be made more consistent (miles, km, meters, yards, etc.) 2. Discuss land use pattern and alterations in terms of density (lot size, existing versus future land use) 3. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 4. Recommend addressing likelihood of development pressure in the future for adjacent lands

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Marine					
Jackson Cove	√	√	1. Partial overview of major shoreline features 2. Identifies priority conservation area 3. Complete description of drift cell segments, especially geology, riparian vegetation, eelgrass distribution, and fish & wildlife use 4. Identifies wetlands and accretionary beach 5. Shoreline alterations include State Shellfish Lab, Camp Parsons, bulkheading & docks 6. Public access discussed	1. Limited description of land use 2. No description of transportation features, water quality, or archaeological/historical resources 3. Restoration opportunities focused on structural repairs 4. Data gaps not identified 5. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 6. No discussion of other infrastructure and utilities (outfalls, pipelines) 7. No mapping or focused discussion of regulated critical areas	1. Text and map identify 7 reaches but text is not necessarily organized around these reaches 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 3. Recommend addressing likelihood of development pressure in the future for adjacent lands
Quilcene Bay	√	√	1. Complete overview of major shoreline features 2. Complete description of drift cell segments, especially geology, riparian vegetation, eelgrass distribution, and fish & wildlife use 3. Detailed shellfish harvest info, calls to preserve water quality 4. Shoreline alterations: Quilcene Boat Haven, bulkheading, diking, and intertidal fill 5. Public access discussed 6. Begins to assess how shoreline alterations have affected shoreline features (loss of salt marsh & riparian vegetation)	1. Limited description of transportation features 2. Does not identify sources of water quality impacts 3. Restoration opportunities focused on structural repairs 4. Data gaps not identified 5. No description of archaeological/historical resources 6. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 7. No discussion of other infrastructure and utilities (outfalls, pipelines)	1. Clarify rationale for reach breaks; i.e., why more than one within a drift cell (land use, stream mouths, etc.) 2. Could expand discussion of fecal coliform contamination in context of important shellfish harvesting area – what is source? Is it being addressed through a TMDL study? 3. Suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
				8. No mapping or focused discussion of regulated critical areas	4. Recommend addressing likelihood of development pressure in the future for adjacent lands
Dabob Bay	√	√	1. Complete overview of major shoreline features 2. Torpedo and submarine testing area 3. Commercial & recreational shellfish production 4. Complete description of drift cell segments, especially geology, riparian vegetation, eelgrass distribution, and fish & wildlife use 5. Rare plant communities described adequately 6. Shoreline armoring (% by segment), homes atop eroding bluffs 7. Public access well described 8. Complete general assessment of overall condition of shoreline ecological functions (e.g., largely intact and recommends protection/preservation)	1. No description of transportation features, water quality concerns, data gaps, or archaeological/historical resources 2. Identifies limited restoration opportunities, focused on preservation 3. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 4. No discussion of other infrastructure and utilities (outfalls, pipelines) 5. No mapping or focused discussion of regulated critical areas	1. Clarify rationale for reach breaks; i.e., why more than one within a drift cell (land use, stream mouths, etc.); 8 reaches identified 2. Recommend addressing likelihood of development pressure in the future for adjacent lands 3. General assessment of condition is there (largely intact) and recommends protection; this could be expanded in the context of what current protections are there (current zoning, setbacks, Shoreline Environment Designation provisions) to enhance recommendation (i.e., is more stringent protection needed?)
Southern Toandos Peninsula & Thorndyke Bay	√	√	1. Partial overview of major shoreline features 2. Identified as priority conservation area 3. Complete description of drift cell segments, especially geology, riparian vegetation, eelgrass distribution, and fish & wildlife use 4. Shoreline alterations include residential bulkheading, an existing	1. Limited description of land use 2. No discussion of transportation features, water quality concerns, data gaps, or archaeological/historical resources 3. Restoration opportunities not clearly identified 4. Very limited discussion of processes or functions – i.e., how have alterations at Bridgehaven Marina	1. Clarify rationale for reach breaks; i.e., why more than one within a drift cell (land use, stream mouths, etc.); 9 reaches identified 2. Recommend addressing likelihood of development pressure in the future for adjacent lands 3. General assessment of condition

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
			marina, former ferry terminal, and several docks & overwater structures 5. Public access discussed	affected shoreline functions beyond just sediment transport? 5. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 6. No discussion of other infrastructure and utilities (outfalls, pipelines) 7. No mapping or focused discussion of regulated critical areas	is there; this could be expanded in the context of what current protections are there (current zoning, setbacks, Shoreline Environment Designation provisions) to enhance recommendation
Marine					
Squamish Harbor	√	√	1. Complete overview of major shoreline features 2. Complete description of drift cell segments, especially geology, riparian vegetation, eelgrass distribution, and fish & wildlife use 3. Armoring, Bridgehaven Marina, & Hood Canal bridge footing effects on sediment transport 4. Public access discussed	1. Limited description of land use 2. No discussion of transportation features, water quality concerns, data gaps, or archaeological/historical resources 3. Limited discussion of effects of shoreline alterations on functions and processes other than sediment transport 4. Restoration opportunities focused on structural repairs 5. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new pubic access opportunities 6. No discussion of other infrastructure and utilities (outfalls, pipelines) 7. No mapping or focused discussion of regulated critical areas	1. Clarify rationale for reach breaks; 7 reaches identified 2. Recommend addressing likelihood of development pressure in the future for adjacent lands 3. General assessment of condition is there; this could be expanded in the context of what current protections are there (current zoning, setbacks, Shoreline Environment Designation provisions) to enhance recommendation

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Hood Canal Bridge to Tala Point	√	√	1. Partial overview of major shoreline features 2. Complete description of drift cell segments, especially geology, riparian vegetation, marsh habitats, kelp & eelgrass distribution, and fish & wildlife use 3. Shoreline alterations include bulkheading, stairway and access road 4. Water quality discussion is thorough – approved shellfish harvest 5. LWD in intertidal as salmon habitat 6. Public access well described	1. Limited description of land use 2. No discussion of transportation features, data gaps, or archaeological/historical resources 3. Limited discussion of effects of shoreline alterations on functions and processes other than sediment transport 4. Restoration opportunities focused on structural repairs 5. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 6. No discussion of other infrastructure and utilities (outfalls, pipelines) 7. No mapping or focused discussion of regulated critical areas	1. Clarify rationale for reach breaks; 11 reaches identified 2. Addresses development pressure very generally, could expand on this – what is expected in the future? Residential, industrial, smaller lot sizes, marinas? 3. General assessment of condition is there; this could be expanded in the context of what current protections are there (current zoning, setbacks, Shoreline Environment Designation provisions) to enhance recommendation

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Port Ludlow	√	√	1. Partial overview of major shoreline features and land use 2. Complete description of drift cell segments, especially geology, riparian vegetation, marsh habitats, kelp & eelgrass distribution, and fish & wildlife use 3. Marina, residential docks, and fish passage barriers 4. Public access discussion is limited, but may be sufficient 5. Structural and some functional restoration opportunities identified 6. Complete specific discussion of development pressure	1. Limited description of transportation features 2. No discussion of water quality concerns, data gaps, or archaeological/historical resources 3. Limited discussion of effects of shoreline alterations on functions and processes other than sediment transport 4. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 5. No discussion of other infrastructure and utilities (outfalls, pipelines) 6. No mapping or focused discussion of regulated critical areas	1. Clarify rationale for reach breaks; 10 reaches identified 2. General assessment of condition is there; this could be expanded in the context of what current protections are there (current zoning, setbacks, Shoreline Environment Designation provisions) to enhance recommendation
Mats Mats Bay	√	√	1. Partial description of riparian vegetation, eelgrass distribution, fish & wildlife use, wetlands, and water quality 2. Limited description of shoreline alterations 3. Public access discussed 4. Identifies water quality issues	1. No overview of major shoreline features or land use 2. No discussion of transportation features, critical areas, data gaps, or archaeological/historical resources 3. Limited functional restoration opportunities identified 4. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 5. No discussion of other infrastructure and utilities (outfalls, pipelines)	1. Clarify description and rationale for reach breaks; 3 reaches identified 2. Could expand on water quality issues (fecal coliform) – what is source or what is driving this? 3. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 4. Recommend addressing likelihood of development pressure in the future for adjacent lands

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Marine					
Oak Bay	√	√	1. Partial overview of major shoreline features 2. Complete description of drift cell segments, especially geology, riparian vegetation, marsh habitats, eelgrass distribution, and fish & wildlife use 3. Shoreline alterations include salt marsh encroachment from residential development, armored spit at oak bay county park, culverting of little goose creek 4. Public access discussed	1. Limited description of land use 2. No discussion of transportation features, water quality issues, data gaps, or archaeological/historical resources 3. Limited discussion of effects of shoreline alterations on functions and processes 4. Restoration opportunities limited to salt marsh restoration 5. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 6. No discussion of other infrastructure and utilities (outfalls, pipelines) 7. No mapping or focused discussion of regulated critical areas	1. Clarify description and rationale for 6 reach breaks 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 3. General development pattern is described; recommend addressing likelihood of development pressure in the future for adjacent lands
South Indian and Marrowstone Islands	√	√	1. Describes extent of jurisdiction 2. Complete description of drift cell segments, especially geology, riparian vegetation, marsh habitats, eelgrass distribution, rare plants, and fish & wildlife use 3. Commercial aquaculture in Scow Bay 4. Shoreline alterations include bulkheading, docks & boat ramps, spit breaching, marsh filling, a small house over the intertidal, a driveway truncating a marsh, and the Marrowstone-Indian island causeway	1. Incomplete overview of major shoreline features 2. Limited description of land use and transportation features 3. No discussion of water quality issues, data gaps, or archaeological/historical resources 4. Restoration opportunities focused on structural repairs and creosote pile removal 5. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment	1. Clarify description and rationale for 20 reach breaks 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 3. General development pattern is described; recommend addressing likelihood of development pressure in the future for Marrowstone Island

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
			interrupting tidal flow 5. Public access well described	Designation, hazardous waste, or new public access opportunities 6. No discussion of other infrastructure and utilities (outfalls, pipelines) 7. No mapping or focused discussion of regulated critical areas	
Port Townsend Bay	√	√	1. Complete description of drift cell segments, especially geology, riparian vegetation, marsh habitats, eelgrass distribution, and fish & wildlife use 2. Recreational shellfish harvest at mouth of Chimacum Creek 3. Describes extent of jurisdiction 4. Shoreline alterations include marina, bulkheading (% by drift cell), and docks & boat ramps 5. Public access discussed 6. Identifies existing restoration project at old log dump	1. Incomplete overview of major shoreline features & land use 2. Addresses only structural effects from paper mill 3. No description of transportation features, water quality issues, data gaps, or archaeological/historical resources 4. Restoration opportunities focused on structural repairs, salmonid access 5. Identifies areas in UGA but no discussion of specific zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 6. No discussion of other infrastructure and utilities (outfalls, pipelines) 7. No mapping or focused discussion of regulated critical areas	1. Clarify description and rationale for 20 reach breaks 2. General assessment of condition is there; this could be expanded in the context of what current protections are there (current zoning, setbacks, Shoreline Environment Designation provisions) to enhance recommendation

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
Marine					
Straight of Juan de Fuca & Discovery Bay	√	√	1. Complete overview of major shoreline features 2. Describes extent of jurisdiction 3. Some description of historical resources (Capt. Vancouver) 4. Complete description of drift cell segments, especially geology, riparian vegetation, marsh habitats, rare plants, old growth forest, kelp & eelgrass distribution, and fish & wildlife use 5. Aquaculture facility at Kalset Point 6. Shoreline alterations include an abandoned rail bed, marinas & jetties; armoring & bulkheading; culverts in creeks; and resort development on fill over the intertidal 7. Restoration of Salmon & Snow Creek estuary has been funded by SRB 8. Some preservation opportunities identified 9. Public access well addressed	1. Limited description of transportation features, land use 2. No discussion of water quality issues, data gaps 3. Limited discussion of functions & processes affected by shoreline alterations (e.g., mentions effects of aquaculture facility on sediment transport only; what about water quality?) 4. Primarily structural restoration opportunities identified 5. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 6. No discussion of other infrastructure and utilities (outfalls, pipelines) 7. No mapping or focused discussion of regulated critical areas	1. Clarify description and rationale for 18 reach breaks 2. General assessment of condition is there; this could be expanded in the context of what current protections are there (current zoning, setbacks, Shoreline Environment Designation provisions) to enhance recommendation 3. Recommend addressing likelihood of development pressure in the future for adjacent lands
Freshwater					
East Jefferson County					
Fulton Creek	√	√	1. Complete general description of larger watershed 2. Describes extent of jurisdiction 3. Describes water quality protection	1. Does not identify any public access points, transportation features, wildlife use, critical areas, archaeological/historical resources, or data gaps	1. Could expand/enhance discussion of what functions are impaired (e.g., diking on Fulton Creek affects floodplain and channel migration functions

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
			provided by ONF 4. Habitat description limited to salmon, but does describe passage barriers, riparian vegetation condition & LWD recruitment, sediment supply data gap 5. Minimal description of channel modifications	2. Does not specifically address channel migration zones 3. 4. Does not link Fulton Creek functions to Fulton Creek delta except for restoration opportunities 5. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 6. No discussion of other infrastructure and utilities (outfalls, pipelines)	beyond just loss of floodplain habitat) 2. We suggest a general assessment of Fulton Creek – is it characteristic of E. Jeff. Co. streams, or unique? 3. Recommend addressing likelihood of development pressure in the future for adjacent lands
Duckabush River	√	√	1. Describes size of watershed, annual discharge, and extent of jurisdiction 2. Complete description of salmon use of river 3. Describes floodplain connectivity 4. Describes road density in relation to mass wasting events 5. Describes development within riparian zone 6. Begins to relate shoreline alterations to processes & functions (limited spawning and rearing habitat)	1. Does not give general description of upper watershed features such as gradient, minimal description of lower watershed 2. Does not address critical areas, or habitat for species other than salmonids 3. Does not address public access, data gaps, or restoration opportunities 4. Does not specifically address channel migration zones 5. Does not relate riparian condition or hydrological maturity to shoreline processes and functions 6. Minimal information on existing land use 7. No discussion of zoning, impervious area, future land use designations or current Shoreline Environment Designation	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes; is the river characteristic of E. Jeff. Co., or unique? 2. Recommend addressing likelihood of development pressure in the future for adjacent lands

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
				8. No discussion of other infrastructure and utilities (except mention of BPA powerline)	
Freshwater					
Dosewallips River	√	√	1. Partial overview of major watershed features 2. Describes size of watershed, discharge and extent of jurisdiction 3. Complete general description of land use at watershed scale 4. Complete description of salmon use of river, falls barrier to passage 5. Describes channel development eliminating side channels and wetlands, relates to salmon spawning and rearing habitat	1. No description of transportation features or water quality 2. Does not address critical areas, or habitat for species other than salmonids 3. Does not address public access (except for mention of steelhead campground), data gaps, or archaeological/historical resources 4. Does not specifically address channel migration zones 5. Restoration opportunities limited to structural repairs 6. No discussion of zoning, impervious area, future land use designations or current Shoreline Environment Designation 7. No discussion of other infrastructure and utilities (outfalls, pipelines)	1. 4 reach breaks identified in text, not shown on map 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes; is the river characteristic of E. Jeff. Co., or unique? 3. Recommend addressing likelihood of development pressure in the future for adjacent lands
Big Quilcene River	√	√	1. Partial overview of major watershed features 2. Describes size of watershed, complete description of land use and zoning at watershed scale 3. Describes water diversions, fish passage barriers 4. Describes LWD, temperature, water quality, riparian vegetation	1. Describes salmonid use, but not other species 2. No description of limits of jurisdiction, transportation features, historical/archaeological resources, critical areas, data gaps, or public access 3. Does not specifically address channel migration zones	1. Could expand on effects of diking and river aggradation (beyond just floodplain habitat) on shoreline functions 2. Reach breaks are listed but not mapped; text does not appear centered around breaks 3. We suggest a general summary statement of overall condition of

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
			limitations	4. Restoration opportunities limited to structural repairs 5. No discussion of impervious area/future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities; limited discussion of zoning 6. No discussion of other infrastructure and utilities (outfalls, pipelines)	shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes; is the river characteristic of E. Jeff. Co., or unique? 4. Recommend addressing likelihood of development pressure in the future for adjacent lands
Little Quilcene River	√	√	1. Partial overview of major watershed features 2. Describes size of watershed and extent of jurisdiction 3. Complete description of land use and zoning at watershed scale 4. Complete description of riparian corridor condition 5. Describes water quality, water diversion, no fish passage barriers 6. Complete description of salmon use, stock origins 7. Both structural and some functional restoration opportunities identified	1. Describes salmonid use, but not other species 2. Limited discussion of data gaps 3. No description of transportation features, historical/archaeological resources, wetlands or other priority habitats, or public access 4. Does not specifically address channel migration zones 5. No discussion of impervious area/future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities; limited discussion of zoning 6. No discussion of other infrastructure and utilities	1. Suggest defining "Type B Nodal Riparian Corridors" or relate what that means in terms of overall habitat conditions 2. 3 reach breaks identified but not mapped 3. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 4. Recommend addressing likelihood of development pressure in the future for adjacent lands
Chimacum Creek	√	√	1. Partial overview of major watershed features 2. Describes size of watershed and extent of jurisdiction noting discrepancy between current regulated extent and likely 20 cfs	1. Limited description of land use, water quality 2. No description of riparian condition, critical areas, shoreline modifications, transportation features, historical/archaeological resources,	1. 3 reach breaks identified but not mapped 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
			extent 3. Historically supported beaver ponds & swamp, now drained and channelized 4. Complete description of fish use, reintroduced summer chum run 5. Some structural and functional restoration opportunities identified, including existing restoration of old log dump 6. Very general reference to development pressure	existing wetlands & other critical areas or priority habitats, data gaps, or public access 3. Does not specifically address channel migration zones 4. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 5. No discussion of other infrastructure and utilities	relationship to ecosystem processes 3. Suggest expanding on issue of development pressure and existing development pattern in lower reaches (an urbanizing UGA) 4. Recommend addressing existing regulatory controls or lack thereof (through zoning, Shoreline Environment Designation, etc.)

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Freshwater					
Snow Creek	√	√	1. Describes extent of jurisdiction 2. Partial overview of major watershed features, including description of land use adjacent to creek and within watershed 3. Partial description of riparian vegetation 4. Describes salmonid use	1. No description of water quality; LWD recruitment; passage barriers; habitat use by other fish & wildlife species; transportation features; historical/archaeological resources; existing wetlands & other critical areas; data gaps; or public access 2. Restoration opportunities primarily structural 3. Does not specifically address channel migration zones 4. No discussion of zoning, impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access opportunities 5. No discussion of shoreline modifications or other infrastructure and utilities	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 2. Recommend addressing likelihood of development pressure in the future for adjacent lands
Lake Leland	√	√	1. Partial overview of major watershed features 2. Partial description of fish & wildlife use 3. Identifies invasive vegetation and associated water quality issues 4. Addresses public access and surrounding land use and zoning designation	1. No description of riparian condition, transportation features, critical areas, priority habitats, archaeological/historical resources, data gaps, or restoration opportunities 2. Does not address shoreline modifications (docks, piers, bulkheads, boat ramps, etc.) or other infrastructure and utilities 3. No discussion of impervious area, future land use designations, current Shoreline Environment Designation, hazardous waste, or new public access	1. Could expand on water quality issues (e.g., what is driving Elodea growth? Excess nutrients? Source?) 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 3. Recommend addressing likelihood of development pressure in the future for

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
				opportunities	adjacent lands
Lords Lake	√	√	1. Results from water diversion of Little Quilcene River to serve as water supply to city of Port Townsend 2. Public access discussed	1. No general description of the lake and relationship to watershed 2. Does not address riparian vegetation, fish & wildlife use, critical areas, priority habitats, archaeological/ historical resources, data gaps, or restoration opportunities 3. Does not address built environment surrounding lake or in area draining to lake (land use, zoning, shoreline modifications, impervious area, current Shoreline Environment Designation, infrastructure & utilities, transportation, hazardous waste, or new public access opportunities) 4. Does not identify functions other than water supply to Port Townsend	1. Text refers to issues on Big Quilcene River (excessive suspended sediment and low flows) but these issues are not addressed in the River write-up 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 3. Recommend addressing likelihood of development pressure in the future for adjacent lands
Rice Lake		√	1. Describes wood duck use 2. Identifies zoning designations surrounding the lake	1. Incomplete general description of lake including size and connection to Quilcene Bay 2. Does not address riparian vegetation, water quality, fish & other wildlife use, critical areas, priority habitats, archaeological/ historical resources, public access, data gaps, or restoration opportunities 3. Does not address many elements of built environment (transportation, infrastructure & utilities, shoreline modifications, impervious area, current Shoreline Environment Designation, hazardous waste, or new	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 2. Recommend addressing likelihood of development pressure in the future for adjacent lands

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
				public access opportunities 4. Does not identify processes or functions	

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Freshwater					
Tarboo Lake	√	√	1. Describes size and land use surrounding lake 2. No outlet, but described as trout fishing lake 3. Public access discussed	1. Does not address water quality concerns, transportation features, riparian vegetation, other fish & wildlife use, critical areas, priority habitats, archaeological/ historical resources, data gaps, or restoration opportunities 2. Does not address built environment surrounding lake or in area draining to lake (land use, zoning, shoreline modifications, infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities) 3. Does not identify processes or functions	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 2. Recommend an assessment of current regulatory controls and whether enhanced protection is called for 3. Recommend addressing likelihood of development pressure in the future for adjacent lands
Sandy Shore Lake	√	√	1. Describes salmonid use 2. Describes size and land use surrounding lake	1. No general description of the lake and relationship to watershed 2. Does not describe connection to Thorndyke Creek 3. Does not address water quality concerns, transportation features, riparian vegetation, other fish & wildlife use, critical areas, priority habitats, archaeological/ historical resources, data gaps, or restoration opportunities 4. Does not identify public access or what type of recreation is allowed 5. Does not address built environment surrounding lake or in area draining to	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 2. Suggest an assessment of current regulatory controls and whether enhanced protection is called for 3. Recommend addressing likelihood of development pressure in the future for adjacent lands

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
				lake (zoning, shoreline modifications, infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	
Wahl Lake	√	√	1. Describes size and land use surrounding lake	1. Does not identify rare wetland plants/assemblages 2. No general description of the lake and relationship to watershed 3. Does not describe hydrologic connection to Thorndyke Bay 4. Does not adequately address water quality concerns, transportation features, riparian vegetation, other fish & wildlife use, critical areas, priority habitats, archaeological/ historical resources, data gaps, or restoration opportunities 5. Does not identify public access or what type of recreation is allowed 6. Does not address built environment surrounding lake or in area draining to lake (zoning, shoreline modifications, infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	1. Identifies resources for protection but we suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 2. Recommend addressing likelihood of development pressure in the future for adjacent lands 3. Suggest an assessment of current regulatory controls and whether enhanced protection is called for
Gibbs Lake	√	√	1. Describes size, connection to Chimacum Creek, and land use surrounding lake 2. Public access discussed	1. No general description of the lake and relationship to watershed 2. No description of water quality issues from county park, riparian vegetation,	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
			3. Describes salmonid use	transportation features, other fish & wildlife use, critical areas, archaeological/ historical resources, data gaps, or restoration opportunities 3. Does not address built environment surrounding lake or in area draining to lake (zoning, shoreline modifications, infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	relationship to ecosystem processes 2. Recommend addressing likelihood of development pressure in the future for adjacent lands 3. Suggest an assessment of current regulatory controls and whether enhanced protection is called for

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Freshwater					
Anderson Lake	√	√	1. Describes size, connection to Chimacum Creek through a wetland 2. Identifies State Park with facilities surrounding lake 3. Describes lake as a popular fishing spot, recreation around lake	1. Limited description of land use or wetland stream outlet; generally described as "pristine" 2. No description of fish or wildlife use, public access, water quality issues from state park, riparian vegetation, transportation features, critical areas, archaeological/ historical resources, data gaps, or restoration opportunities 3. Does not address built environment surrounding lake or in area draining to lake (zoning, shoreline modifications, infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 2. Recommend addressing likelihood of development pressure in the future for adjacent lands 3. Suggest an assessment of current regulatory controls and whether enhanced protection is called for
Peterson Lake	√	√	1. Describes size, commercial forestry surrounding lake but with intact buffer 2. Some information on fish & wildlife use included 3. No public access 4. Addresses surrounding land use, zoning, and alterations	1. Limited description of riparian vegetation 2. No general description of lake; connection to Chimacum Creek; water quality; critical areas; archaeological/historical resources; data gaps; or restoration opportunities 3. Lacks discussion of built environment but is implied that conditions are "pristine". Does not address infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities	1. Could expand on assessment of overall shoreline conditions (mentions generally pristine) 2. We suggest an assessment of current regulatory controls and whether enhanced protection is called for 3. Recommend addressing likelihood of development pressure in the future for adjacent lands

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
The Mill Settling Pond		√	1. Describes size, industrial uses, current Shoreline Environment Designation 2. Historical salt marsh	1. No description of shoreline alterations; fish or wildlife use; public access; riparian vegetation; critical areas; archaeological/ historical resources; data gaps; or restoration opportunities 2. Does not address water quality within or downstream of settling pond – any issues associated with industrial uses? 3. Does not address built environment surrounding lake or in area draining to lake (zoning, shoreline modifications, infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	1. If appropriate, identify as Unnamed Lake listed as Shoreline of the State in WAC 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 3. Recommend addressing likelihood of development pressure in the future for adjacent lands
Unnamed Lake (T30N-R1W 16-H/J)	√		1. Most likely this is synonymous with the Mill Settling Pond		

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Crocker Lake	√	√	1. Describes size and surrounding land use 2. Fish & wildlife use addressed 3. Identifies WDFW research station downstream 4. Public access discussed	1. No description of connection to Snow Creek; riparian condition; water quality or other concerns from boat launch; critical areas; archaeological/ historical resources; or data gaps 2. Restoration opportunities focused on vegetation 3. Does not address built environment surrounding lake or in area draining to lake (zoning, shoreline modifications, infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 2. Recommend addressing likelihood of development pressure in the future for adjacent lands
Kah Tai Lagoon (T30N-R1W 11-D/E)	√				1. Because this shoreline segment has been identified in the WAC as a Shoreline of the State within Jefferson County, we suggest describing it as out-of-jurisdiction and refer to Port Townsend SMP Inventory
Freshwater					
West Jefferson County					
Bogachiel River	√	√	1. Describes salmonid use 2. Erosion, sedimentation & water quality addressed 3. Partial description of LWD and riparian condition	1. Incomplete description of watershed, reach characteristics, and limits of jurisdiction 2. No description of use by other fish & wildlife species, archaeological/historical resources; restoration opportunities; public	1. Clarify rationale for reach breaks 2. Could expand on issue of erosion and channel migration 3. Provide context for regulations (e.g., 4 miles of river in Jeff. Co.; what percentage of the river is this?)

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
				access 3. Limited description of data gaps 4. Does not address built environment or regulations (zoning, shoreline modifications, infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities) 5. Implies that channel migration is an issue but does not specifically address 6. No specific discussion or mapping of regulated critical areas	4. What drives conditions upstream? 5. Expand on water quality issues – what is source of low do and high temp? 6. Define Habitat Limiting Factors Analysis and explain classification of "poor" and "fair" 7. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Goodman Creek	√	√	1. Describes salmonid use 2. Culverts and passage barriers identified 3. Wetlands, lack of LWD described	1. Incomplete description of watershed, reach characteristics, riparian condition, and limits of jurisdiction 2. Limited description of transportation features, data gaps, public access 3. No description of use by other fish & wildlife species; or archaeological/historical resources 4. Restoration opportunities focused on structural repairs 5. Does not address built environment or regulations (land use, zoning, shoreline modifications, infrastructure & utilities, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities) 6. Does not specifically address channel migration zones 7. No specific discussion or mapping of regulated critical areas	1. Clarify rationale for reach breaks 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Minter Creek	√				1. Tributary of Goodman Creek, listed as Shoreline of the State in WAC. Appears there are sections within Jefferson County jurisdiction and should therefore be included in this Inventory
Mosquito Creek	√	√	1. Describes salmonid use 2. Identifies passage barriers 3. Public access discussed	1. Incomplete description of watershed, reach characteristics, riparian condition, limits of jurisdiction, restoration opportunity, and data gaps 2. No discussion of transportation features; water quality; use by other	1. Clarify rationale for reach breaks 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
				fish and wildlife species; or archaeological/historical resources 3. Does not address built environment or regulations (land use, zoning, shoreline modifications, infrastructure & utilities, transportation, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities) 4. Does not specifically address channel migration zones 5. No specific discussion or mapping of regulated critical areas	processes

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Freshwater					
Hoh River	√	√	1. Partial description of watershed and limits of jurisdiction 2. Land use primarily timber harvest 3. Some information on wildlife use 4. Complete description of salmonid use 5. Lack of passage barriers on mainstem, but culverts blocking tributary access 6. Roads reducing floodplain habitat 7. Describes riparian condition 8. Structural and functional restoration opportunities identified	1. Limited discussion of transportation features, public access, water quality, and data gaps 2. No information on archaeological/historical resources 3. Does not address built environment or regulations (zoning, shoreline modifications, infrastructure & utilities, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities) 4. Does not specifically address channel migration zones 5. No specific discussion or mapping of regulated critical areas	1. Could expand water quality discussion – what is source of high temperatures on tributaries? 2. Provide rationale and mapping of 3 reach breaks 3. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Hoh River South Fork	√	√	1. Describes riparian condition 2. Water quality addressed	1. No overview of major watershed features 2. No discussion of limits of jurisdiction, transportation features, fish & wildlife use, passage barriers, LWD recruitment, critical areas , archaeological/historical resources, data gaps, public access, restoration opportunities 3. Does not address built environment or regulations (land use, zoning, shoreline modifications, transportation, utilities, etc.)	1. Suggest developing specific section of report addressing stream; currently unclear if Hoh tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Maple Creek	√	√	1. Riparian condition addressed 2. Temperature, water quality addressed	1. No overview of major watershed features	1. Suggest developing specific section of report addressing

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
				2. No discussion of limits of jurisdiction, transportation features, fish & wildlife use, passage barriers, LWD recruitment, critical areas , archaeological/historical resources, data gaps, public access, restoration opportunities 3. Does not address built environment or regulations (land use, zoning, shoreline modifications, transportation, utilities, etc.)	stream; currently unclear if Hoh tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Nolan Creek	√	√	1. Describes cedar splats affecting flow, temperature, water quality 2. Identifies blocking culverts 3. Riparian condition addressed	1. No overview of major watershed features 2. No discussion of limits of jurisdiction, transportation features, fish & wildlife use, LWD recruitment, critical areas , archaeological/historical resources, data gaps, public access, restoration opportunities 3. Does not address built environment or regulations (land use, zoning, shoreline modifications, transportation, utilities, etc.)	1. Suggest developing specific section of report addressing stream; currently unclear if Hoh tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Owl Creek	√	√	1. Riparian condition addressed 2. Temperature, water quality addressed	1. No overview of major watershed features 2. No discussion of limits of jurisdiction, transportation features, passage barriers, fish & wildlife use, LWD recruitment, critical areas , archaeological/historical resources, data gaps, public access, restoration opportunities 3. Does not address built environment or	1. Suggest developing specific section of report addressing stream; currently unclear if Hoh tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
				regulations (land use, zoning, shoreline modifications, transportation, utilities, etc.)	processes

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Freshwater					
Winfield Creek	√	√	1. Describes cedar splats affecting flow, temperature, water quality 2. Riparian condition addressed	1. No overview of major watershed features 2. No discussion of limits of jurisdiction, transportation features, passage barriers, fish & wildlife use, LWD recruitment, critical areas , archaeological/historical resources, data gaps, public access, restoration opportunities 3. Does not address built environment or regulations (land use, zoning, shoreline modifications, transportation, utilities, etc.)	1. Suggest developing specific section of report addressing stream; currently unclear if Hoh tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Cedar Creek	√	√	1. Partial description of limits of jurisdiction, land use as private timberland 2. Describes salmonid use 3. Blocking culverts identified	1. Incomplete overview of major watershed features 2. Limited discussion of data gaps 3. No description of water quality, riparian condition, LWD recruitment, wildlife use, critical areas, archaeological/historical resources, public access, restoration opportunities 4. Does not specifically address channel migration zones 5. Does not address built environment or regulations (land use, zoning, shoreline modifications, transportation, infrastructure & utilities, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	1. Could expand discussion of conditions – regulated portions run through private timberland – recently logged? 2. Clarify rationale for reach breaks 3. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Kalalock Creek	√	√	1. Partial description of jurisdiction & land use (private & state timberland) 2. Water quality addressed 3. Describes salmonid use	1. Not identified on Map 20 as indicated 2. Incomplete overview of major watershed features, data gaps 3. No description of fish passage barriers, riparian condition, LWD recruitment, wildlife use, critical areas, archaeological/historical resources, public access, restoration opportunities, data gaps 4. Does not specifically address channel migration zones 5. Does not address built environment or regulations (land use, zoning, shoreline modifications, transportation, infrastructure & utilities, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	1. Could expand discussion of water quality – what is source of high temps? 2. Clarify rationale for reach breaks 3. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes 4. Clarify rationale for reach breaks
Clearwater River	√	√	1. Partial overview of major watershed features, jurisdiction, and land use (experimental forest) 2. Describes salmonid use 3. Passage barriers & floodplain data gaps identified 4. High road density identified 5. Geological instability due to road failure and timber harvest, data gaps identified 6. Riparian condition addressed 7. LWD recruitment & data gaps identified 8. Structural and functional restoration	1. No description of reach characteristics, critical areas, habitat use by wildlife, archaeological/historical resources, public access 2. Does not specifically address channel migration zones 3. Limited discussion of transportation features, water quality 4. Does not address built environment or regulations (zoning, shoreline modifications, infrastructure & utilities, impervious area, Shoreline Environment Designation, hazardous waste, or new public access	1. Describe rationale and map the 3 reach breaks identified 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
			opportunities identified	opportunities)	
Freshwater					
Christmas Creek	√	√		1. No description of reach characteristics, jurisdictional boundaries, land use, water quality, passage barriers, LWD recruitment, riparian condition, fish & wildlife use, transportation features, critical areas , archaeological/historical resources, public access, data gaps, or restoration opportunities	1. Suggest developing specific section of report addressing stream; currently unclear if Clearwater tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Hurst Creek	√	√		1. No description of reach characteristics, jurisdictional boundaries, land use, water quality, passage barriers, LWD recruitment, riparian condition, fish & wildlife use, transportation features, critical areas , archaeological/historical resources, public access, data gaps, or restoration opportunities	1. Suggest developing specific section of report addressing stream; currently unclear if Clearwater tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Miller Creek	√	√		1. No description of reach characteristics, jurisdictional boundaries, land use, water quality, passage barriers, LWD recruitment, riparian condition, fish & wildlife use, transportation features, critical areas ,	1. Suggest developing specific section of report addressing stream; currently unclear if Clearwater tributary is regulated shoreline, what portion is regulated, etc.

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
				archaeological/historical resources, public access, data gaps, or restoration opportunities	2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Miller Creek East Fork	√	√		1. No description of reach characteristics, jurisdictional boundaries, land use, water quality, passage barriers, LWD recruitment, riparian condition, fish & wildlife use, transportation features, critical areas , archaeological/historical resources, public access, data gaps, or restoration opportunities	1. Suggest developing specific section of report addressing stream; currently unclear if Clearwater tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Shale Creek	√	√		1. No description of reach characteristics, jurisdictional boundaries, land use, water quality, passage barriers, LWD recruitment, riparian condition, fish & wildlife use, transportation features, critical areas , archaeological/historical resources, public access, data gaps, or restoration opportunities	1. Suggest developing specific section of report addressing stream; currently unclear if Clearwater tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Snahapish River	√	√	1. Riparian condition addressed	1. No description of reach characteristics, jurisdictional boundaries, land use, water quality,	1. Suggest developing specific section of report addressing stream; currently unclear if

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
				passage barriers, LWD recruitment, fish & wildlife use, transportation features, critical areas , archaeological/historical resources, public access, data gaps, or restoration opportunities	Clearwater tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
Freshwater					
Solleks River	√	√	1. Riparian condition addressed	1. No description of reach characteristics, jurisdictional boundaries, land use, water quality, passage barriers, LWD recruitment, fish & wildlife use, transportation features, critical areas, archaeological/historical resources, public access, data gaps, or restoration opportunities	1. Suggest developing specific section of report addressing stream; currently unclear if Clearwater tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Stequaleho Creek	√	√	1. Riparian condition addressed	1. No description of reach characteristics, jurisdictional boundaries, land use, water quality, passage barriers, LWD recruitment, fish & wildlife use, transportation features, critical areas, archaeological/historical resources, public access, data gaps, or restoration opportunities	1. Suggest developing specific section of report addressing stream; currently unclear if Clearwater tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Salmon River	√	√	1. Partial description of watershed, jurisdictional limits 2. Vegetation cover in watershed described 3. No blocking culverts, isolated floodplain habitat described	1. Limited discussion of water quality 2. No description of reach characteristics, land use, LWD recruitment, fish & wildlife use, critical areas, archaeological/historical resources, public access, data gaps, or restoration opportunities 3. Does not specifically address channel	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	**Gaps and Opportunities**	
				migration zones 4. Does not address built environment or regulations (zoning, shoreline modifications, transportation, infrastructure & utilities, impervious area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	
Matheny Creek	√	√		1. No description of reach characteristics, jurisdictional boundaries, land use, water quality, passage barriers, LWD recruitment, riparian condition, fish & wildlife use, transportation features, critical areas, archaeological/historical resources, public access, data gaps, or restoration opportunities	1. Suggest developing specific section of report addressing stream; currently unclear if Clearwater tributary is regulated shoreline, what portion is regulated, etc. 2. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes
Quinault River	√	√	1. Partial description of watershed, jurisdictional boundaries, and land use 2. Describes salmonid use 3. Water quality addressed	1. No description of reach characteristics 2. No description of passage barriers, LWD recruitment, riparian condition, wildlife use, transportation features, critical areas, archaeological/historical resources, public access, data gaps, or restoration opportunities 3. Does not specifically address channel migration zones 4. Does not address built environment or regulations (zoning, shoreline modifications, transportation, infrastructure & utilities, impervious	1. We suggest a general summary statement of overall condition of shoreline ecological functions (impaired, intact, etc.) and relationship to ecosystem processes

SMP Resource	WAC[2]	INV[3]	Inventory Elements[4]		Additional Comments and Revision Opportunities
			Elements Addressed in Current Inventory	Gaps and Opportunities	
				area, Shoreline Environment Designation, hazardous waste, or new public access opportunities)	