

# memorandum

date June 29, 2007

to Michelle McConnell, Jefferson County  
Shoreline Coordinator

from Kent Hale; Margaret Clancy

subject **Jefferson County Shoreline Master Program Update - Draft Cumulative Impact Analysis**

With the assistance of a grant, Jefferson County is updating its Shoreline Master Program (SMP) consistent with state guidelines (WAC Chapter 173-26). Under the shoreline guidelines, local jurisdictions are required to evaluate and consider cumulative impacts of reasonably foreseeable future development in the shorelines of the state (WAC 173-26-186(8)(d)). This memorandum assesses the cumulative impacts of development in the shoreline that would result from development and activities over time under the proposed Jefferson County SMP. This memorandum is prepared as a grant deliverable (SMA Grant No. G0600343). At this point in time, the proposed amendments to the SMP are preliminary in nature (reflected in the April 2007 draft) and are undergoing staff and advisory committee review. Planning Commission and Board of County Commissioners review has not occurred. Accordingly, this analysis should be considered preliminary and will be revised based on anticipated revisions to the policies and regulations in the SMP.

Jefferson County's regulated shorelines (or designated shorelines of the state subject to regulations under the County's SMP) include more than 250 miles of marine shoreline, 367 miles of stream and river shoreline, and at least 18 miles of lakeshore. The purpose of evaluating cumulative impacts is to insure that, when implemented over time, the proposed SMP goals, policies and regulations will achieve no net loss of shoreline ecological functions from current "baseline" conditions. Baseline conditions are identified and described in the Final Shoreline Inventory and Characterization Report (ESA Adolfson, May 2007). The proposed Jefferson County SMP provides standards and procedures to evaluate individual uses or developments for their potential to impact shoreline resources on a case-by-case basis through the permitting process. The purpose of this memorandum is to determine if impacts to shoreline ecological functions are likely to result from the aggregate of activities and developments in the shoreline that take place over time.

The guidelines state that, "to ensure no net loss of ecological functions and protection of other shoreline functions and/or uses, master programs shall contain policies, programs, and regulations that address adverse cumulative impacts and fairly allocate the burden of addressing cumulative impacts among development opportunities. Evaluation of such cumulative impacts should consider:

- Current circumstances affecting the shorelines and relevant natural processes;
- Reasonably foreseeable future development and use of the shoreline; and
- Beneficial effects of any established regulatory programs under other local, state, and federal laws.”<sup>1</sup>

The guidelines further state that in addition to considering proposed SMP policies and regulations, the cumulative impact analysis should consider effects on shoreline ecological functions caused by unregulated activities and incremental effects from development exempt from shoreline permitting.<sup>2</sup>

The discussion of “development exempt from shoreline permitting” is focused on those foreseeable activities listed in WAC 173-27-040 with the greatest potential for adverse cumulative impacts. Not all activities that may be exempt from substantial development permits are discussed (e.g., watershed restoration plans and projects; hazardous material remediation, etc.). Similarly, not all regulated uses and activities under the SMP are addressed. The analysis is focused on those allowed uses or developments that have the greatest potential for adverse impacts when considered in a long-range or aggregate manner. For example, signs are regulated under the SMP but are not considered in this context based on their limited size and effect on shoreline functions. Additionally, exempt development activities are still subject to compliance with the SMP policies (e.g., to minimize impacts) and other regulations in place that protect shoreline resources (e.g., critical area regulations).

This cumulative impacts assessment uses these considerations as a framework for evaluating the potential long-term impacts on shoreline ecological functions and processes that may result from development or activities under the proposed SMP over time. The following table provides a qualitative discussion of these considerations for several types of “development or activity” (as described in the left hand column). The development categories are organized into several broad groups that generally follow the format and organization of the April 2007 draft SMP. These include:

- Unregulated Activities (per the SMA/SMP);
- Development Exempt from Shoreline Permitting (but subject to compliance with general SMP policies and regulations);
- Shoreline Modifications;
- Shoreline Uses; and
- Nonconforming Uses or Developments.

The table includes a few placeholders indicated with highlighted text. These items should be addressed in future revisions of the cumulative impact analysis.

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<sup>1</sup> WAC 173-26-286(8)(d)

<sup>2</sup> WAC 173-26-201(3)(d)(iii)

**Jefferson County SMP Update – DRAFT Cumulative Impacts Analysis**

<b>Development or Activity</b>	<b>Current Circumstances</b>	<b>Relevant Shoreline Processes Affected</b>	<b>Foreseeable Use and Development</b>	<b>Foreseeable Impacts / Effects</b>	<b>SMP Provisions</b>	<b>Other Regulatory Programs</b>
<b>Unregulated Activities (per SMA/SMP)</b>						
Forest Practices	Much of County’s land base in upper watershed is in commercial forestry. Activities generally have effects at watershed scale.	Hydrology and sediment processes most directly affected at watershed scale.	Under the SMP, “Forest lands should be reserved for long term forest management and such other uses as are compatible with the dominant use.” Forest lands currently in production are likely to remain in production within the foreseeable future.	Poorly functioning forestry roads will likely continue to contribute fine sediments to riverine aquatic environments. Landslides associated with these roads and road failure due to channel migration is also possible.	Limitations and guidelines on placement of roads, application of chemicals, installation of culverts, and other activities potentially detrimental to aquatic environments.	Forest Practices Act (RCW 76.09); WAC 222, as amended; 1999 <i>Forest and Fish Report</i> implementing rules.
On-site Septic Systems	Most on-site septic systems in County are associated with rural residential and agricultural land uses, along marine shorelines and within the lower reaches of river valleys.	Failing on-site septic systems may affect water quality with the introduction of pathogens in the hyporheic, riverine, and marine aquatic environments. Functioning on-site systems may also affect water quality with the introduction of excess nutrients in the hyporheic, riverine, and marine aquatic environments.	Under Washington State’s Growth Management Act (GMA), sewer systems are generally not allowed outside of urban growth areas. On-site septic systems are likely to accompany residential and commercial development in rural areas of Jefferson County.	On-site septic systems within the shoreline jurisdiction or in proximity to waters of the state may contribute to increased nutrient loading in the foreseeable future, and failing on-site systems may contribute pathogens to aquatic environments of the County.	SMP regulations for water quality require siting and maintenance of on-site sewage systems to avoid septic failures and to minimize effects when failures occur. Preliminary buffer requirements are intended to control fecal coliform inputs from septic systems.	Septic permit through Jefferson County DCD and Jefferson County Public Health.
Roads (located outside shoreline jurisdiction)	Upper watersheds in County are primarily served by unpaved roads, which are typically maintained by the Forest Service. Impervious surface roads maintained by the County are concentrated in more densely developed rural residential areas; shoreline processes are in some cases interrupted by roads paralleling shorelines, such as Highway 101 along the western shore of Hood Canal.	Roads can constrict river and/or stream channels, limit channel migration, contribute pollutants to riverine and marine aquatic environments, increase sediment deposition in waters of the County, and disrupt feeder bluff/sediment supply for nearshore processes.	Some new roads to serve anticipated development can be expected, but the County’s Transportation Element shows that no capacity-related transportation improvements are necessary to meet estimated future traffic growth.	Road maintenance projects have the potential to increase erosion and associated sediment input to aquatic environments, but impacts are not likely due to the implementation of BMPs. Other impacts are unlikely, as transportation infrastructure is to be located outside of the shoreline jurisdiction.	New roads, highways, freeways, and railways shall be located outside shoreline jurisdiction, except for unavoidable water crossings and transportation facilities serving water-dependent or public uses. Other specific provisions limit road construction within floodplains and near sensitive marine areas, such as accretion shoreforms.	County requirements for stormwater detention and water quality treatment; Hydraulic Project Approval (HPA) permitting process (WDFW) and Section 404 permitting process (ACOE) for work within the Ordinary High Water Mark (OHWM); Department of Ecology water quality certification; SEPA; mitigation potential for projects with adverse impacts.

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Agriculture (located outside shoreline jurisdiction)	Local and Commercial Agriculture zoning and activities exist primarily in the lower reaches of watersheds, such as Salmon, Snow, and Chimacum creeks and the Little Quilcene River.	Nutrients in runoff and/or groundwater may affect water quality in hyporheic and riverine aquatic environments.	Jefferson County's Comprehensive Plan establishes a policy basis for maintaining an undeveloped land base for future agricultural use. Some expansion of agriculture can be anticipated in the foreseeable future, though this expansion could be offset by current agricultural lands taken out of production or converted to other uses.	New agricultural development shall conform to the provisions of this Master Program. The SMP establishes standards for shoreline and water quality protection that will likely limit impacts of new agricultural development.	New agricultural activities should be managed to minimize impacts to shoreline environments, specifically to reduce livestock intrusion into the water, water quality contamination from the use of fertilizers and pesticides, and bank erosion.	Department of Ecology Concentrated Animal Feeding Operation General Permit (NPDES); Department of Ecology and Department of Agriculture pesticide application permits; County critical areas requirements.
<b>Development Exempt from Shoreline Permitting</b>					Development or activities exempt from obtaining a shoreline substantial development permit are required to demonstrate compliance with SMP policies through the Statement of Exemption process.	
Single-family development (and appurtenances)	Approximately XX% of the shoreline is currently developed as single-family residential.	Clearing and grading for single-family development within shoreline jurisdiction removes riparian vegetation, affecting water quality functions. Fertilizer application related to landscaping can also affect water quality by increasing nutrient loading.	Approximately XX% is zoned for residential [need to address anticipated increases in density and development per zoning/comp plan; note transitional land use (ag/forestry/resource lands to residential)]	Population growth throughout the County may create pressure to convert lands currently used for agriculture or forestry to residential uses. Residential land uses may typically result in associated shoreline modifications (i.e., vegetation clearing, grading, and shoreline structures such as piers, docks, bulkheads, etc.) that can affect shoreline functions.	Prohibits construction of residences within Aquatic environment; CUP required in Natural environment; limits construction of residences in other designations; establishes policy preference for configuring development to avoid the need for bulkheads (i.e., buffers from OHWM) or for shore stabilization measures with minimal impact on shoreline processes.	Jefferson County Building Permit can be issued with "shoreline conditions" per the SMP Statement of Exemption process.
"Normal protective bulkhead" associated with single-family development	Approximately XX% of marine shorelines have bulkheads or other armoring; Bulkheads are much less of	Interrupts feeder bluff/nearshore connection (e.g., sediment supply and transport processes);	Demand is associated with anticipated residential development or redevelopment activities	Building setback requirements and prioritization of alternative bank stabilization methods	Establishes policy basis and buffers to avoid need for new bulkheads; Bulkheads are prohibited in	HPA permitting process through WDFW; Army Corps of Engineers Section 10 permit for work in

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	an issue on freshwater shorelines in Jefferson County.	increases wave energy and refraction, scouring and coarsening substrate, which affects eelgrass and shellfish habitat.		decrease the likelihood of cumulative protective bulkhead impacts from new development.	the Natural environment and on all lakes. Where new or replacement bulkhead is needed, applicant must consider alternative bank stabilization (“soft-shore”) designs.	navigable waters; SEPA and potential for mitigation.
Agricultural practices and construction (including structures and irrigation facilities)	See discussion above for agriculture.	Within shoreline jurisdiction, grading for cultivation removes riparian vegetation, affecting water quality (e.g., temperature) functions and nutrient inputs to aquatic environment (e.g., excessive nutrients from fertilizers; lack of nutrients from lost LWD recruitment); Irrigation facilities (e.g., diversions, channels, pumps) alter hydrologic processes (timing and volume of flows) and drainage patterns.	See discussion above for agriculture.	See discussion above for agriculture.	See discussion above for agriculture.	See discussion above for agriculture.
Docks (below threshold criteria for fair market value - \$5,000, salt water; \$10,000, fresh water)	Most concentrations of docks are located in bays and harbors of the County, including Mats Mats Bay, Mystery Bay, and Ludlow Bay. Concentrations are also found near population centers such as Nordland and Port Townsend.	Docks can affect sediment transport processes and negatively impact eelgrass beds, which provide habitat functions for a number of nearshore-dependent species, including salmonids.	Some of the population growth projected in the County’s Comprehensive Plan can be expected to occur in or near the shoreline jurisdiction, and some demand for new docks can be expected to accompany this growth. Due to SMP policies, substantial demand for individual, private docks is unlikely.	SMP regulations allow private docks for individual lots only if those lots were permitted on or before January 28, 1993. Policy preference for buoys and community docks over individual docks in all cases, decreasing the odds of substantial cumulative impacts related to new dock construction.	Private recreational docks and floats for individual lots are permitted in existing subdivisions which were approved on or before January 28, 1993, only where shared moorage has not already been developed. Also, difficult to build dock under current cost thresholds.	Hydraulic Project Approval (HPA) permitting process (WDFW); SEPA and potential for mitigation.

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Irrigation Systems (including canals, waterways, reservoirs)	Identified infrastructure includes an unscreened irrigation canal on the Little Quilcene River. Other facilities (e.g. pumps) are likely associated with agricultural uses in lower watersheds of the County.	Irrigation diversions can reduce downstream water quantity within the shoreline jurisdiction.	The construction of new, large-scale irrigation systems – including canals and reservoirs that could damage salmonid habitat – is unlikely within the current regulatory framework of the county and state. Less invasive infrastructure (e.g. pumps) can be expected to accompany new agricultural development and expanded current operations.	New infrastructure enabling water withdrawals may reduce downstream water quantity in streams of Jefferson County, though the regulatory framework makes withdrawals affecting aquatic ecosystems unlikely.	The SMP does not specifically address irrigation infrastructure.	Department of Ecology Reservoir Permit, Water Right Change, or New Water Right Permit; HPA permitting process
Restoration Plans and Projects	A variety of restoration efforts are underway or planned in Jefferson County, including stream restoration, beach nourishment, bulkhead removal, eelgrass restoration, and others.	Shoreline processes such as sediment supply and transport, channel migration, and LWD recruitment can benefit from restoration. Habitat functions provided by eelgrass and upper intertidal areas can also be restored through restoration efforts.	Funding opportunities for restoration benefiting salmonids and nearshore areas are increasing, and the restoration of Puget Sound is a high priority at the state level, particularly in Hood Canal. Restoration opportunities will likely increase in the foreseeable future.	Beneficial effects by restoring shoreline ecological functions and processes where they have been degraded through programmatic or site specific restoration actions.	SMP Restoration Plan establishes policy basis and priorities for shoreline restoration actions.	Specific projects would be developed in concert with a variety of stakeholders, permitting agencies, and/or funding agencies.
<b>Shoreline Modifications</b>						
Beach Access Structures (i.e., stairs)	Numerous staircases are identified along the western shore of Hood Canal, particularly near Triton Cove State Park, Fulton Creek, and Pleasant Harbor. Stairways are also identified on Marrowstone Island, in Oak Bay, and in the vicinity of Port Ludlow.	Staircases can affect sediment transport processes and contribute to increased scouring of upper intertidal areas, decreasing habitat functions.	Provisions for stairs and stair towers are made for new residential development in the SMP, though shared access structures are preferred. Demand for new beach access structures can be expected to accompany new development in and near the shoreline jurisdiction.	Beach access structures can affect shoreline functions by removal of vegetation, disruption of sediment transport processes, and natural bank stability.	Locating beach access structures are limited to the Shoreline Residential and High Intensity environments, with provisions for “essential minor structures” serving public access in the Natural and Conservancy environments in association with recreational facilities. They are prohibited in landslide/erosion hazard areas and other critical areas.	HPA permitting process; potential for SEPA and/or mitigation.
Shoreline Stabilization (excluding residential bulkheads)	Shoreline stabilization is present throughout most shoreline reaches of the	Marina breakwaters and jetties made of riprap block longshore transport of	Additional shoreline stabilization measures are most likely to accompany	Shoreline stabilization is typically highly detrimental to sediment transport	SMP policies and regulations require that construction within the shoreline	HPA permitting process; Department of Ecology Water Quality Certification;

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	County, functioning as a breakwater for marinas, shoreline stabilizer, and occasionally existing as jetties. Seawalls – made of concrete or wood – are also present near population centers.	sediment, while riprap bulkheads can contribute to increased scouring of upper intertidal areas. Riprap is also known to block tidal flow between marine waters and salt marshes. Riprap along stream banks can restrict channel migration.	necessary public infrastructure, such as roads. Policies and regulations of the SMP strongly discourage new development where shoreline stabilization would be necessary. It should be noted that rising sea levels could substantially alter shoreline jurisdiction in the foreseeable future, necessitating significant shoreline stabilization measures in areas where infrastructure is at risk.	processes and habitat in the upper intertidal zone. Additional stabilization measures are, however, unlikely in the near future under the policies and regulations of the SMP. Long-term stabilization measures as a result of rising sea levels could significantly alter shoreline processes and functions.	jurisdiction be carried out in a manner that avoids or minimizes the need for shoreline stabilization. Residential and appurtenant structures, for example, should comply with buffers, and be set back from steep slopes and shorelines vulnerable to erosion.	Army Corps of Engineers 404 and/or Section 10 permits; SEPA and potential for mitigation.
Flood Control Structures	Dikes and levees are noted in the delta and estuary of the Big and Little Quilcene River, and in the Hoh River valley. Diking is also noted in the lower Dosewallips River watershed and around Ludlow Lagoon.	Levees and dikes isolate rivers from their floodplains, restricting channel migration. Dams can interrupt the passage of sediment from freshwater to marine systems, affecting sediment supply and thereby altering habitat functions.	The construction of additional dikes and levees is highly unlikely in the near future due to the current regulatory framework. As with shoreline stabilization measures, the construction of flood control infrastructure may be necessary in the long term as a result of increased flooding associated with climate change.	Flood control structures such as dikes and levees can cause significant damage to aquatic habitats. The construction of new flood control structures is, however, unlikely in the near future. Long-term flood control improvements as a result of climate change could significantly alter processes and functions of freshwater aquatic systems.	Residential development shall not be approved where flood control will be required to create residential lots or site area. Other provisions are made for transportation infrastructure, which should not create the need for new flood control devices.	HPA permitting process; Army Corps of Engineers 404 and/or Section 10 permits; Department of Ecology Dam Construction and/or Reservoir permit; NEPA; SEPA and potential for mitigation.
Moorage (docks, piers, buoys) [need to expand discussion in future iteration]	See discussion above for docks.	See discussion above for docks.	See discussion above for docks.	See discussion above for docks.	See discussion above for docks.	See discussion above for docks.
<b>Shoreline Uses</b>						
Aquaculture	Commercial aquaculture operations are identified in Scow Bay, Discovery Bay, and Quilcene Bay. There is high potential for aquaculture throughout much of the marine shorelines.	Aquaculture activities can have positive effects on marine water quality. Infrastructure associated with aquaculture operations can affect longshore transport of sediment. If not properly located, aquaculture	Aquaculture is a water-dependent use, and when consistent with control of pollution and avoidance of adverse impacts to the environment and preservation of habitat for resident native species, is a	If undertaken in accordance with the SMP and other regulatory provisions, expansion of aquaculture operations is unlikely to result in negative impacts to shoreline processes or functions.	SMP establishes a policy basis for limiting the proximity of aquaculture operations, impacts of overwater structures, potential to interrupt sediment transport, and other potentially detrimental	Recommended Interim Guidelines for the Management of Salmon Net Pen Culture in Puget Sound; WDFW Aquaculture Registration and Transfer Permit; Department of Health Aquatic Farm

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		operations can also impact submerged aquatic vegetation such as eelgrass.	preferred use of the shoreline under the SMP. Current operations are dependent on water quality, and a future expansion of aquaculture would only occur if water quality was maintained and improved, where necessary.		cumulative effects of operation.	Registration and Shellfish Operation License; Department of Natural Resources Aquatic Use Authorization; NPDES permits for waste discharge.
Marinas and Boat Launches	Marinas and boat launches are present throughout most of Hood Canal and eastern Jefferson County.	Marinas and boat launches both affect longshore transport of sediment and can contribute to degradation of upper intertidal habitat. Marinas can be focal points for the introduction of pollutants into marine waters, negatively impacting water quality.	Demand for expansion of existing marinas or construction of new marinas and boat launches can be expected to accompany population growth at the county and regional level.	SMP regulations require new marinas and boat launches to be sited away from ecologically sensitive areas, and for mitigation to accompany any disruption of shoreline processes. Cumulative impacts are unlikely if activities are in accordance with the SMP.	Expansion of existing marinas preferred over addition of new marinas; provisions for launch ramps that do not affect sediment transport or tidal processes; restricts construction of marinas and launches to less ecologically sensitive areas.	HPA permitting process; Army Corps of Engineers Section 10 permit; SEPA and potential for mitigation.
Commercial Use	Commercial use and development is noted at the Snow/Salmon Creek estuary, within the middle Chimacum Creek watershed, in Port Townsend, Port Hadlock, and Port Ludlow, and within the lower reaches of the Duckabush and Dosewallips rivers.	Impervious surfaces associated with commercial development can increase the rate of runoff to freshwater and marine aquatic environments, affecting water quality and quantity downstream. Waterfront commercial development can include docks and other structures that impact sediment transport and tidal processes.	Jefferson County's Comprehensive Plan identifies commercially zoned lands available for future development; most commercial centers contain undeveloped land that could be built out in the future. Due to mandates of the GMA, conversion of lands zoned for other uses to commercial purposes is unlikely.	The Comprehensive Plan identifies the need to protect ecological functions in sensitive areas with some level of commercial development, such as the estuary of Snow/Salmon Creek. Impacts to shoreline functions and processes are unlikely within the current regulatory structure and if development is carried out according to the SMP.	Establishes policy basis for prioritizing water-dependent commercial uses of the shoreline when securing locations for commercial use; encourages restoration of impaired shoreline ecological functions and processes as part of commercial development.	Department of Community Development building permits; NPDES Construction Stormwater General Permit and Coverage; NPDES Individual Permit for wastewater discharge to surface waters.
Industrial/Port Development	Industrial zoning and development is mostly concentrated around population centers, including Port Townsend, Port Hadlock, Port Ludlow, and Quilcene.	Port development can include structures that impact sediment and tidal processes, and eliminate habitat functions associated with eelgrass.	The GMA contains provisions for siting industrial lands outside of urban growth areas (UGAs) under specific circumstances, and for qualified counties to designate two Industrial Land Banks (outside of UGAs) before December 31, 2007 for specific purposes of	Possible impacts from new industrial development are difficult to foresee without the knowledge of where this development might be located. If activities within or near the shoreline jurisdiction are undertaken according to the SMP, impacts to processes and	Shoreline industrial development shall result in no net loss of shoreline ecological functions and processes; water-dependent shoreline industrial use is prioritized over water-related and water-enjoyment commercial uses.	Department of Community Development building permits; NPDES Individual Permit for wastewater discharge to surface waters; HPA permitting process and Army Corps Section 10 permit for port developments impacting aquatic areas.

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			siting Major Industrial Developments. <b>It is unknown whether the County will designate these land banks.</b>	functions are unlikely. <b>[need additional research on this issue – review Comp Plan]</b>		
Mining	Gravel mines operated by private landowners are located in the upper and middle Hoh River watershed, and Mineral Resource Lands near Shine are the site of a 137-acre gravel mine operated by Fred Hill Materials.	Sediment input to marine and fresh water bodies can increase as a result of mining, decreasing water quality. Mining within floodplains can alter channel morphology and decrease habitat functions.	The 137-acre gravel mine near Shine is scheduled to be mined sequentially in approximately 12 to 15-acre increments. Other mineral resource lands may be developed over time.	Review of potential environmental impacts during gravel mine permitting is extensive. Combined with SMP policies and regulations, this framework makes impacts to shoreline processes and functions unlikely.	Restricts new mining practices to fewer environment designations than the current SMP and is only allowed with approval of a shoreline conditional use permit.	State Surface Mining Act (RCW 78.44); JC UDC 18.20.240
Recreational Development	Parks and other recreational facilities are located on fresh and marine water bodies, with a majority located in eastern parts of the County.	Infrastructure associated with parks – such as boat ramps and docks – can interrupt sediment transport processes, contribute to scouring of the upper intertidal zone, and alter habitat functions associated with eelgrass. Water quality can be impacted in areas where wastewater/stormwater is not properly treated. Development often requires parking and other infrastructure.	As part of its planning process, Jefferson County regularly analyzes its Level of Service (LOS) for park and recreational facilities, based on population density. As population grows, the County will likely identify a need for new facilities to meet increasing demand of County residents. Several new parks and trail systems are already under development as of 2007.	Park and recreation facilities that do not require structures are unlikely to impact shorelines processes and functions. Facilities involving new structures are subject to permitting requirements and regulations of the SMP, which require the maintenance or improvement of shoreline functions. Foreseeable impacts are unlikely.	No proposal for recreational development shall be approved unless it is demonstrated to the satisfaction of the Shoreline Administrator that the development will maintain, enhance or restore desirable shoreline features including unique and fragile areas, scenic views and aesthetic values.	Appropriate permits from Department of Community Development
Transportation and Utility Facilities	Transportation infrastructure and utility corridors are generally more common in lower watersheds, while unpaved Forest Service roads exist within some upper river basins.	Roads can constrict river and/or stream channels, limit channel migration, contribute pollutants to riverine and marine aquatic environments, and increase sediment deposition in waters of the County.	Based on policies and regulations set forth in the SMP, the addition of new roads within the shoreline jurisdiction is unlikely. In addition, the County's Transportation Element shows that no capacity-related transportation improvements are necessary to meet estimated future traffic growth.	Road maintenance projects have the potential to increase erosion and associated sediment input to aquatic environments, but impacts are not likely due to the implementation of BMPs. Other impacts are unlikely, as transportation infrastructure is to be located outside of the shoreline jurisdiction.	Requirements that new roads, parking, and primary utility facilities (e.g., stormwater treatment ponds, wastewater pump stations, electrical substations, etc.) be located outside shoreline jurisdiction or as far away from the shoreline as possible.	Allowed facilities such as stormwater or wastewater outfalls would require WDFW and/or Corps permits for in-water work.
<b>Nonconforming Uses or</b>					Legal nonconforming	

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Developments					<p>structures may be maintained or rebuilt if damaged not more than 75% of the value of the structure [need to verify];</p> <p>Voluntary redevelopment of properties with nonconforming structures must bring development into compliance with SMP standards.</p>	