

**REVISED**

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**CUMULATIVE IMPACTS ANALYSIS**

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City of Goldendale Shoreline Master  
Program

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# CUMULATIVE IMPACTS ANALYSIS

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## CITY OF GOLDENDALE SHORELINE MASTER PROGRAM

### 1 INTRODUCTION

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#### 1.1 Background & Purpose

This Cumulative Impacts Analysis (CIA) is a required element of the City of Goldendale (City or Goldendale) Shoreline Master Program (SMP) update.

The State Master Program Approval/Amendment Procedures and Master Program Guidelines (SMP 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” (WAC 173-26-186[8][d]).

The SMP Guidelines do not include a definition of cumulative impacts; however, federal guidance has defined a cumulative impact as:

The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency... or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (Council on Environmental Quality 1997).

The purpose of this CIA is to evaluate whether the final draft version of the City’s SMP (dated February 29, 2016) would address adverse environmental impacts such that no net loss of ecological functions would result over a 20-year planning horizon. The baseline against which changes in ecological function are evaluated is the current shoreline conditions, as documented in the Shoreline Analysis Report (The Watershed Company 2015). Per the SMP Guidelines, individual projects or activities that result in degradation of ecological functions must provide mitigation to return the resultant ecological function back to the baseline.

## 1.2 Approach

The SMP Guidelines (WAC 173-26-186[8][d]) state that the evaluation of cumulative impacts should consider:

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

Consistent with this guidance, Section 2 of this CIA summarizes existing conditions in the City's shoreline jurisdiction. Section 3 summarizes regulatory programs that may influence development activity in the City's shoreline jurisdiction. Section 4 analyzes the effects of application of the draft SMP on shoreline ecological functions given anticipated future development. Finally, Section 5 recaps the information in previous sections and features concluding remarks.

## 2 SUMMARY OF EXISTING CONDITIONS

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The following summary of existing conditions in the City's shoreline jurisdiction is based on the Shoreline Analysis Report.

The Little Klickitat River is the only waterbody in the City that qualifies as a Shoreline of the State. Shoreline jurisdiction within City limits covers approximately 7,263 linear feet of shoreline and encompasses approximately 115 acres, which includes portions of 61 tax parcels, as well as areas of right-of-way. Outside of current City limits, within its designated urban growth area, the City has also predesignated Little Klickitat River shorelines in preparation for eventual annexation (these shorelines were not reviewed in the Shoreline Analysis Report and are not discussed further in this section).

For purposes of the Shoreline Analysis Report, the City's shoreline jurisdiction was broken down into three segments or "reaches." These reaches are shown below in Figure 2-1.

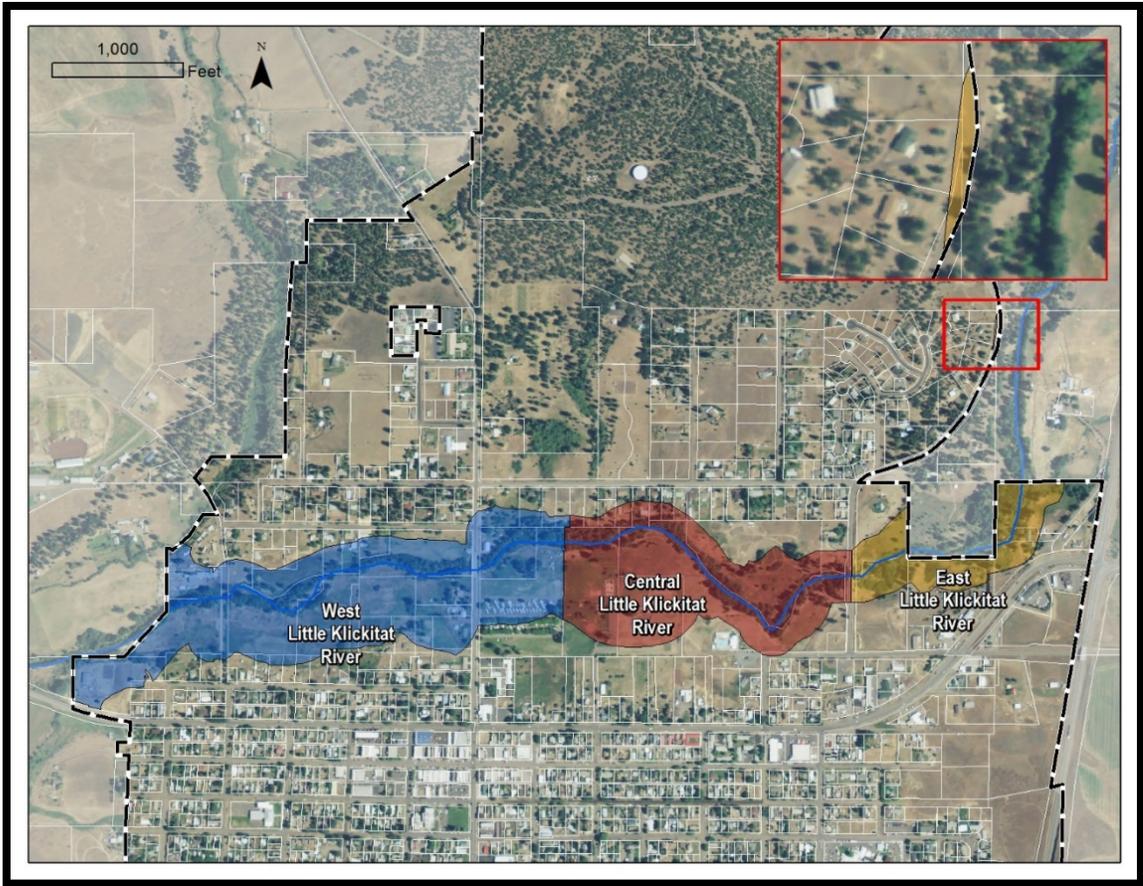


Figure 2-1. Shoreline reaches.

A large floodplain and extensive floodway are present throughout most of shoreline jurisdiction and development is very limited. A narrow, forested riparian area is intact along most of the shoreline. Upland shorelands generally consist of undeveloped open space or scrub/shrub vegetation.

The West Little Klickitat River reach is the largest reach and where the majority of development is found. It is comprised of primarily residential uses, but over a third of its area is undeveloped or vacant land. The 33 parcels in this reach are all privately owned. The reach is almost entirely within floodplain (99%). A narrow, forested and scrub/shrub riparian area is present adjacent to the river, but the majority of undeveloped shorelands consist of fields. Two areas of higher-intensity development are present in the western end of the reach. Two main roads cross the river, and a side street, vehicle access, and parking are associated with the high intensity developments, otherwise transportation infrastructure is not present within the reach.

The majority of the Central Little Klickitat River reach is undeveloped. It includes a City park and trails, and has a fairly intact riparian buffer separating the river from these uses. The majority of land in this reach is owned by Klickitat County (35%) or the City (20%). Klickitat County ownership consists of one large parcel (number 04161601003020). The parcel contains a park, including a public swimming pool facility, and the only wetland mapped within shoreline jurisdiction. City ownership consists of another large parcel (number 04161633000300), which contains Ekone Park. Private ownership makes up the remainder of the reach, which includes 18 parcels, including the Cottonwood RV Park and the Goldendale Little League ball fields. Eighty-two percent of the reach is within the floodplain.

The East Little Klickitat River reach is also primarily undeveloped. It contains the highest amount of intact woody vegetation overall; however, some commercial mining activities are present in the central portion of the southern shoreline where vegetation is lacking. The eight parcels in this reach are all privately owned. Eighty-three percent of the reach is within the floodplain.

As noted above, the vast majority of shoreline jurisdiction is in the 100-year floodplain and is therefore within the Flood Hazard District zoning category. GMC 17.32.010 restricts uses in the flood hazard district that are dangerous to health, safety or property in times of flood or cause increased flood heights or velocities. Areas outside of the floodplain within shoreline jurisdiction are generally zoned residential, with the exception of a small area of mixed commercial and highway commercial zoning near the eastern City boundary, and a small area of light industrial zoning at the western City boundary. More intensive development could occur in the City's shoreline jurisdiction; however, the extensive presence of floodway and floodplain constrain development potential overall.

No existing or planned water-dependent or water-related uses were identified in the City's shoreline jurisdiction. However, existing shoreline public access locations that are present on County- and City-owned parcels in the Central Little Klickitat River reach represent water-enjoyment uses. This reach also has potential for expansion of recreational water-enjoyment uses in these public access areas.

Please see Chapters 3 and 4 of the Shoreline Analysis Report for more information on existing conditions in the City's shoreline jurisdiction.

### 3 SUMMARY OF REGULATORY PROGRAMS

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A variety of established local, state, and federal regulatory programs may influence development activity in the City’s shoreline jurisdiction. The current shoreline regulatory framework was discussed at length in Chapter 2 of the Shoreline Analysis Report. Key regulatory programs identified in the Shoreline Analysis Report are listed in Table 3-1 below. Other regulatory programs may also be relevant.

Table 3-1. Key shoreline regulatory programs applicable to the City.

<b>City</b>	Existing SMP
	Critical areas regulations
<b>State</b>	Shoreline Management Act
	Hydraulic Code
	Clean Water Act – Section 401
<b>Federal</b>	Clean Water Act – Section 402 and Section 404
	Endangered Species Act

Established regulatory programs can play an important role in the design and implementation of a shoreline project, ensuring that impacts to shoreline functions and values are avoided, minimized, and/or mitigated.

Please see Chapter 2 of the Shoreline Analysis Report for more detailed discussion on the current regulatory framework for development activities along the City’s shoreline.

### 4 APPLICATION OF THE SMP

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This section analyzes the effects of application of the draft SMP on shoreline ecological functions given anticipated future development. As discussed in Section 2, development in shoreline jurisdiction is limited. More intensive development could occur in the City’s shoreline jurisdiction; however, the extensive presence of floodway and floodplain constrain development potential overall.

Nonetheless, for any development that may occur, the following components of the SMP are integral to ensuring no net loss of shoreline functions. Each of these components is discussed in further detail later in this section.

- *Environment designations:* Shoreline environment designations are based on existing shoreline conditions. Allowed uses focus high-intensity development in

areas with a high level of existing alterations, while limiting future uses in areas where ecological functions and processes are more intact.

- *Shoreline critical areas regulations:* Shoreline critical regulations are intended to protect shoreline critical areas in accordance with most current, accurate, and complete scientific and technical information available. Regulations include buffers for Shorelines of the State.
- *Mitigation sequencing:* SMP standards require applicants to avoid, minimize, and then compensate for unavoidable impacts to shoreline functions. Where SMP standards do not provide specific, objective measures that clarify avoidance, minimization, and mitigation measures, a mitigation sequencing analysis is required.
- *Shoreline use and modification regulations:* Specific regulations for shoreline uses and modifications ensure that potential impacts are regulated to avoid a net loss of ecological function.

#### **4.1 Environment Designations**

The assignment of environment designations can help minimize cumulative impacts by concentrating development activity in lower functioning areas or areas with more intensive existing development that are not likely to experience significant degradation of function with incremental increases in new development or redevelopment.

According to the SMP Guidelines (WAC 173-26-211[2][a]), the assignment of environment designations must be based on the existing use pattern, the biological and physical character of the shoreline, and the goals and aspirations of the community as expressed through a comprehensive plan. The Shoreline Analysis Report reviewed such information and informed the development of environment designations.

The draft SMP features three upland environment designations: High Intensity, Parks and Recreation and Shoreline Residential. All areas waterward of the ordinary high water mark are designated Aquatic. Designation criteria for each environment designation are provided in Table 4-1.

Table 4-1. Environment designation criteria.

Environment Designation	Designation Criteria
High Intensity	A High-Intensity environment designation is assigned to shoreline areas that currently support or are suitable and planned for high-intensity uses related to commerce, industry or transportation.
Shoreline Residential	A Shoreline Residential environment designation is assigned to shoreline areas that are predominantly single-family or multifamily residential development or are planned and platted for residential development.
Parks and Recreation	<p>A Parks and Recreation environment designation is assigned to shoreline areas that are appropriate and planned for development that is compatible with maintaining or restoring the ecological functions of the area, that are not generally suitable for water-dependent uses, if any of the following characteristics apply:</p> <ul style="list-style-type: none"> <li>• They are suitable for water-related or water-enjoyment uses;</li> <li>• They are open space, floodplain or other sensitive areas that should not be more intensively developed;</li> <li>• They have potential for ecological restoration;</li> <li>• They retain important ecological functions, even though partially developed; or</li> <li>• They have the potential for development that is compatible with ecological restoration.</li> </ul>
Aquatic	An Aquatic environment designation is assigned to lands waterward of the ordinary high water mark.

## 4.2 Shoreline Critical Areas Regulations

The SMP, in Appendix B, includes numerous regulations to address potential impacts to shoreline critical areas, including wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, aquifer recharge areas, and geologically hazardous areas. Shoreline critical regulations are intended to protect shoreline critical areas in accordance with most current, accurate, and complete scientific and technical information available. Key regulations for wetlands and streams that should help ensure no net loss of ecological function include standard buffer areas, which are discussed in greater detail below.

### 4.2.1 Wetlands

The SMP requires vegetated buffers for all shoreline wetlands. The standard wetland buffer widths are based on wetland category and habitat score (Appendix B, Table 2-1). Buffer averaging is permitted when certain criteria are met, including that the total area

contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging, and that such averaging will clearly provide greater protection of the functions and values of critical areas than would be provided by the prescribed habitat buffers (Appendix B, regulation 2.5(2)H).

#### **4.2.2 Streams**

The Little Klickitat River and non-shoreline streams occurring in shoreline jurisdiction are designated as Fish and Wildlife Habitat Conservation Areas. As such, buffers are required to protect stream function.

The buffer scheme for the Little Klickitat River has been developed to be consistent with existing conditions, as generally described as part of the Shoreline Analysis Report, and varies based on environment designation. In the Parks and Recreation and Shoreline Residential environment designations, a 150-foot buffer is required. For the purpose of assigning buffer widths, the High-Intensity environment designation has been divided into two subareas: High-Intensity A and High-Intensity B. In the High-Intensity A environment designation, a buffer of 50 feet is required. In the High Intensity-B environment designation, a buffer of 100 feet is required (Appendix B, Table 3-1).

These buffers are generally wide enough to encompass the existing area of intact riparian vegetation. Any vegetation removal in shoreline jurisdiction must also meet the regulations of Section 6.6, Vegetation conservation, which requires that vegetation removal be limited to the minimum necessary and that mitigation sequencing be applied, including compensatory mitigation for any adverse impacts. These provisions offer additional protection for any intact riparian areas that may be present outside of the designated shoreline buffer areas.

For non-shoreline tributaries within shoreline jurisdiction, required buffers range from 25 to 200 feet, depending on the type of stream (Appendix B, Table 3-1). Buffers on non-shoreline streams within shoreline jurisdiction help ensure that riparian functions are maintained at ecologically significant confluence areas.

### **4.3 Mitigation Sequencing**

The mitigation sequence is a series of measures that can be applied to projects to ensure they achieve no net loss of ecological functions. In short, these measures are to avoid, minimize, and then compensate for unavoidable impacts to shoreline functions (the full sequence is listed in regulation 6.3[3]). Mitigation sequencing applies to all projects in

shoreline jurisdiction, and is incorporated into the SMP through multiple regulations in Section 6.3.

For some development activities, provisions in the SMP stipulate specific, objective standards for avoiding impacts (e.g. placement), minimizing impacts (e.g. size), and compensating for unavoidable impacts (e.g. planting requirements). If a proposed shoreline use or development is entirely addressed by such standards, then further mitigation sequencing analysis is not required.

However, in the following situations, applicants must provide an analysis of how the project will follow the mitigation sequence:

- If a proposed shoreline use or modification is addressed in any part by discretionary standards (such as standards requiring a particular action “if feasible” or requiring the minimization of development size) contained in the City’s shoreline regulations, then the mitigation sequence analysis is required for the discretionary standard(s).
- When an action requires a shoreline conditional use permit or shoreline variance permit.
- When specifically required by a provision in the City’s SMP.

The application of mitigation sequencing standards will help ensure that shoreline uses and modifications achieve no net loss of shoreline ecological functions.

#### **4.4 Shoreline Use & Modification Regulations**

As discussed previously, WAC 173-26-186(8)(d) directs local SMPs to evaluate and consider the cumulative impacts of “reasonably foreseeable future development and use of the shoreline.” Although future development may include other less common types of development, the location, timing, and impacts of less common uses and development projects are less predictable. WAC 173-26-201(3)(d)(iii) states:

For those projects and uses with unforeseeable or uncommon impacts that cannot be reasonably identified at the time of master program development, the master program policies and regulations should use the permitting or conditional use permitting processes to ensure that all impacts are addressed and that there is not net loss of ecological function of the shoreline after mitigation.

The below subsections address the extent to which future changes to shoreline land uses and modifications are anticipated, and describe how the SMP would apply to each of these changes to help maintain no net loss of functions.

The majority of activities within shoreline jurisdiction will likely fall under repair and maintenance. However, while repair and maintenance activities are exempt from shoreline substantial development permit requirements, SMP standards still apply.

#### **4.4.1 Agriculture**

*Likelihood of development:* Historically, Goldendale was a farming and timber community. Currently some agricultural activities continue to occur in the City, including in shoreline jurisdiction, as well as in the City's urban growth area. Given the City's agricultural past and setting, agricultural activities—particularly on a small scale—are expected to continue to occur.

*Application of the SMP:* Possible impacts from agriculture include the potential for livestock waste, pesticides, herbicides, and fertilizers to enter waters through runoff, and affects to groundwater and base flows from irrigation withdrawals.

SMP provisions do not limit or require modification to ongoing agricultural activities. SMP provisions apply to new agricultural activities or expansion of such activities on land not meeting the definition of agricultural land (regulation 7.2[1]). New agriculture is allowed in all upland environments (Table 7-1). New agricultural activities must assure that uses and developments in support of agricultural uses are located and designed to assure no net loss of ecological functions (regulation 7.2[2]). New agricultural activities must employ applicable best management practices established by relevant agriculture-related agencies (regulation 7.2[3]). Measures must be incorporated to prevent impacts to surface water and groundwater quality and quantity that would result in a net loss of shoreline ecological functions (regulation 6.7[2]). Conversion of agricultural land to nonagricultural uses shall be consistent with the environment designation and the general and specific use regulations applicable to the proposed use, and shall not result in a net loss of ecological functions (regulation 7.2[4]). In such cases, shoreline buffers consistent with Appendix B, Table 3-1 are required.

#### **4.4.2 Aquaculture**

*Likelihood of development:* No aquaculture currently exists in the City's shoreline jurisdiction. While aquaculture is not anticipated within the City's shoreline jurisdiction, some scale or form of aquaculture could be appropriate.

*Application of the SMP:* Aquaculture can result in a reduction in water quality from substrate modification, supplemental feeding practices, pesticides, herbicides, and antibiotic applications. Aquaculture structures can cause alteration in hydrologic and sediment processes. Accidental introduction of non-native species or potential interactions between wild and artificially produced species is also possible.

Aquaculture would need to be located, designed, constructed, and managed to avoid a net loss of shoreline ecological functions (regulation 7.3[1]). The applicant would be required to complete a mitigation sequence analysis that describes how the proposal would avoid, minimize, and mitigate for any adverse impacts (regulation 6.3[2]B). Authorization would be via the relatively more rigorous conditional use permit process (regulation 7.3[1]), which would include mandatory action on the City-issued permit by Ecology (approval, approval with conditions, or denial).

#### **4.4.3 Boating Facilities**

*Likelihood of development:* No boating facilities currently exist in the City's shoreline jurisdiction. Boating activity in the City is limited to seasonal rafting. No boating facilities are anticipated.

*Application of the SMP:* The SMP prohibits boating facilities in shoreline jurisdiction (7.4[1]).

#### **4.4.4 Commercial Development**

*Likelihood of development:* Relatively little commercial development currently exists in shoreline jurisdiction. Existing zoning would allow for some new commercial development.

*Application of the SMP:* Common effects of commercial development include increased impervious surfaces, increased traffic, and vegetation clearing.

Under the proposed SMP, commercial development is prohibited everywhere except in the High-Intensity environment designation. All commercial development must not result in a net loss of shoreline ecological functions (regulation 7.5[4]).

#### **4.4.5 Dredging & Dredge Material Disposal**

*Likelihood of development:* Dredging and dredge material disposal is not known to occur regularly.

*Application of the SMP:* Dredging activities have potential short-term and long-term effects on the aquatic environment. Short-term effects include elevated turbidity and direct habitat disturbance. Long-term effects stem from the alteration of currents and sediment transport processes, both to on-site and downstream areas.

Dredging may only be authorized for a limited number of purposes, including the reduction of flood hazards (regulation 7.6[3]). Any dredging and dredge material disposal must be done in a manner that avoids, minimizes, and mitigates impacts. Additionally, dredge material disposal may only be permitted if it will not result in significant or ongoing adverse impacts to water quality, fish and wildlife habitat conservation areas and other critical areas, flood-holding capacity, natural drainage and water circulation patterns, and significant plant communities (regulation 7.6[5]B).

#### **4.4.6 Fill & Excavation**

*Likelihood of development:* Fill and excavation would most likely occur over relatively small areas of shoreline jurisdiction in support of approved developments.

*Application of the SMP:* Fill can result in a change in habitat conditions and temporary effects to water quality. In some cases, these actions can be used to restore habitats that have been degraded as a result of altered watershed processes or past practices.

Fills and excavations may only be permitted when associated with an approved use and must generally be located outside of applicable buffers (regulation 7.7[1]). Fills must be the minimum size necessary to implement the allowed use or modification, must fit the topography so that minimum alterations of natural conditions will be necessary, and must not adversely affect hydrologic conditions or increase the risk of slope failure (regulation 7.7[4]). Fill waterward of the ordinary high water mark is allowed only under a narrow set of circumstances (regulation 7.7[2]). A temporary erosion and sediment control plan must be provided for all proposed fill and excavation activities (regulation 7.7[6]).

#### **4.4.7 Forest Practices**

*Likelihood of development:* Forest practices do not currently occur and are not expected to occur in shoreline jurisdiction.

*Application of the SMP:* Forest practices are prohibited in shoreline jurisdiction (7.8[1]).

#### **4.4.8 Industrial Development**

*Likelihood of development:* Existing zoning would allow for some new industrial development.

*Application of the SMP:* Common effects of industrial development include increased impervious surfaces, increased risk of contaminant spills and water quality contamination, and shoreline modifications, which may affect instream habitat.

Industrial development is prohibited in all but the High- Intensity environment. Industrial development and redevelopment is encouraged to locate where environmental cleanup and restoration of the shoreline area can be incorporated (policy 4.2.9[2]). Such development must also be located, designed, constructed, and in a manner that assures no net loss of shoreline ecological functions (regulation 7.9[3]).

#### **4.4.9 In-stream Structures**

*Likelihood of development:* Existing in-stream structures appear to be limited to those associated with existing agricultural activities, primarily in the City's urban growth area. Maintenance and repair of existing structures may occur. New in-stream structures would likely be limited to new irrigation diversion or discharge structures.

*Application of the SMP:* Instream structures are typically intended to modify flows, which can result in alterations to circulation patterns, water quality, and habitat access and conditions.

All in-stream structures, except those used to protect or restore ecological functions, require a conditional use permit. In-stream structures installed to protect or restore ecological functions, such as woody debris in streams, may be allowed by a shoreline substantial development permit or exemption (Table 7-1). The SMP permits in-stream structures that provide for the protection and preservation of ecosystem-wide processes and ecological functions, including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, and hydrogeological processes (7.10[2]).

#### **4.4.10 Mining**

*Likelihood of development:* A small area of mining is currently present in the eastern end of shoreline jurisdiction. Expansion of mining in shoreline jurisdiction is not anticipated.

*Application of the SMP:* New mining is prohibited in shoreline jurisdiction (7.11[1]).

#### **4.4.11 Recreational Development**

*Likelihood of development:* The central portion of shoreline jurisdiction includes several recreational facilities including Ekone Park and the Goldendale Little League ball fields. The park includes restrooms, a kitchen, two softball fields, picnic facilities, a gazebo, playground, skate park, and shoreline access. It is possible that additional recreational development, such as trail extensions, could be proposed in this area.

*Application of the SMP:* Recreational development can result in increased impervious surfaces, increased use of pesticides and fertilizers, and increased potential for riparian degradation.

A Parks and Recreation environment designation was assigned to the area that contains existing recreational development. New recreational development may be permitted in this designation, as well as in the Shoreline Residential environment designation. Recreational developments must be located, designed, and operated in a manner consistent with the purpose of the environment designation in which they are located and such that no net loss of shoreline ecological functions or ecosystem-wide processes results 7.12.[3]. Recreational development is allowed in shoreline buffers, provided that the applicant can demonstrate that the design applies mitigation sequencing and appropriate mitigation is provided to ensure no net loss of ecological functions (Appendix B, regulation 3.3[2]B.3).

#### **4.4.12 Residential Development**

*Likelihood of development:* Some residential development is currently located in shoreline jurisdiction. New or expanded residential development could occur. However, the extensive floodway and floodplain present limit the potential for residential development.

*Application of the SMP:* Residential development typically is associated with an increase in impervious surfaces, the potential for water quality contamination, and the disturbance of riparian corridors.

New residential lots created through land division must assure that no net loss of ecological functions will result from the subdivision at full build-out, and that the need for new shoreline stabilization or flood hazard reduction measures is prevented (regulation 7.13[2]). Similarly, new residential development must be located to avoid the need for shoreline stabilization, and be located, designed, and constructed in a manner that assures no net loss of shoreline ecological functions (regulations 7.15[2][A])

and 7.13[7]). Residential development would also need to comply with the shoreline buffer provisions specified in Appendix B, regulation 3.3(2).

#### **4.4.13 Shoreline Habitat & Natural Systems Enhancement Projects**

*Likelihood of development:* Several restoration opportunities are identified in the Shoreline Restoration Plan (The Watershed Company 2015). Many of these opportunities originated in watershed-scale planning documents.

*Application of the SMP:* Policy 4.2.14(1) identifies the intent to foster shoreline habitat and natural systems enhancement projects. Such projects must be carried out in accordance with an approved shoreline restoration plan (regulation 7.14[2]). Shoreline habitat and natural systems enhancement projects must also be designed using the best available scientific and technical information, and implemented using best management practices (regulation 7.14[3]). Long-term maintenance and monitoring must also be included (regulation 7.14[5]).

#### **4.4.14 Shoreline Stabilization**

*Likelihood of development:* Some armoring is present in shoreline jurisdiction. New shoreline stabilization is not anticipated to commonly occur, but could be proposed, particularly in association with transportation or utility infrastructure.

*Potential Impacts and Application of the SMP:* Shoreline stabilization measures tend to result in the simplification of shoreline habitat complexity and increased flow velocities along the shoreline.

The occurrence of new stabilization measures will be limited as new development must be located and designed to avoid the need for future shoreline stabilization, if feasible (regulation 7.15[2]A), and new or enlarged stabilization is only allowed under certain circumstances (regulation 7.15[3]). Soft approaches must be used unless demonstrated not to be sufficient to protect primary structures, dwellings, and businesses (regulation 7.15[7]A). All proposals for shoreline stabilization structures must not result in a net loss of ecological functions (regulation 7.15[7]C), and must be the minimum size necessary (regulation 7.15[7]B).

An existing shoreline stabilization structure, hard or soft, may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents or waves. However, additions to or increases in size of

existing shoreline stabilization measures shall be considered new structures (regulation 7.15[4]).

Repair and maintenance of existing shoreline stabilization measures may also be allowed. As with replacement, any additions to or increases in the size of existing shoreline stabilization measures shall be considered new structures. Areas of temporary disturbance within the shoreline buffer shall be expeditiously restored to their pre-project condition or better (regulation 7.15[5]).

#### **4.4.15 Transportation & Parking**

*Likelihood of development:* Existing transportation infrastructure is limited as much of shoreline jurisdiction is undeveloped. Three main local roads cross the Little Klickitat River within the City. Various other local access roads and a parking lot for Ekone Park are also in shoreline jurisdiction. Outside of the City limits, in the City's urban growth area, portions of Highway 97 and Highway 142 run through shoreline jurisdiction. There is potential for new transportation facilities, including roads, to be constructed; however, the replacement, repair, and maintenance of existing transportation infrastructure are expected to be more common.

*Application of the SMP:* New transportation and parking facilities are associated with increased stormwater discharge, increased shoreline crossing structures, and riparian disturbance. The SMP limits development of new transportation facilities or parking areas in shoreline jurisdiction if other options outside of shoreline jurisdiction are available and feasible (regulations 7.16[1]A and 7.16[2]B). When new transportation and parking facilities are unavoidable in shoreline jurisdiction they must be planned, located, and designed to minimize possible adverse effects on unique or fragile shoreline and maintain no net loss of shoreline ecological functions (7.16[1]).

#### **4.4.16 Utilities**

*Likelihood of development:* Limited new utility development, including the expansion of existing utilities, is expected. Moreover, regular utility maintenance and repair of utilities is expected to occur.

*Application of the SMP:* Utilities have the potential to disrupt shoreline functions through associated shoreline armoring; the potential for spills or leakage; and disturbance to riparian vegetation. Under the proposed SMP, transmission lines, cables, pipelines, and nonwater-oriented components of production and processing facilities must be located outside of shoreline jurisdiction, where feasible (regulation 7.17[3]). In order to limit the

spatial extent of any impacts from new utilities, they must be located in existing right-of-ways and corridors whenever possible (7.17[4]). Utility projects allowed within shoreline jurisdiction shall be designed to achieve no net loss of shoreline ecological function (regulation 7.17[6]), including the requirement that any areas disturbed during construction or maintenance must be regraded and revegetated to compatibility with the natural terrain (regulation 7.17[7]).

## **5 NET EFFECT ON ECOLOGICAL FUNCTION**

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This CIA indicates that future development in shoreline jurisdiction is likely to be limited due to the extensive presence of floodway and floodplain, though certain types of development are likely to occur.

The SMP is expected to maintain existing shoreline functions while accommodating the reasonably foreseeable future shoreline development. As discussed above, major elements of the SMP that ensure no net loss of ecological functions fall into four general categories: 1) shoreline environment designations, which are based on existing shoreline conditions; 2) shoreline critical regulations, which are intended to protect shoreline critical areas in accordance with most current, accurate, and complete scientific and technical information available; 3) mitigation sequencing, which directs applicants to avoid, minimize, and then compensate for unavoidable impacts to shoreline functions; and 4) shoreline use and modification provisions, which ensure that likely development is regulated to avoid a net loss of ecological function.

Other local, state and federal regulations, acting in concert with this SMP, will provide further assurances of maintaining shoreline ecological functions over time.

As part of a comprehensive SMP update, local jurisdictions are required to plan for the restoration of impaired shoreline functions. Such planning “should be designed to achieve overall improvements in shoreline ecological function over time, when compared to the status upon adoption of the master program” (WAC 173-26-201[2][f]). The Shoreline Restoration Plan represents an opportunity for voluntary restoration to be implemented over time and result in ongoing improvements to shoreline ecological functions within the City.

In summary, given the provisions of the SMP, including the key features listed above, implementation of the proposed SMP is anticipated to achieve no net loss of ecological functions in the shoreline in the City of Goldendale. Furthermore, voluntary restoration

actions in the forthcoming Shoreline Restoration Plan would provide the opportunity for Goldendale's shorelines to be enhanced and restored in coming years.

## 6 REFERENCES

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Council on Environmental Quality 1997. Considering Cumulative Effects under the National Environmental Policy Act. January 1997.

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