

**ANALYSIS OF CUMULATIVE IMPACTS
EVERSON SHORELINE MASTER PROGRAM**

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1.0 INTRODUCTION

Pursuant to the updated Shoreline Master Program Guidelines, WAC 173-26, shoreline master programs are required to evaluate and address the cumulative impacts to shoreline functions that may result from future shoreline development. The policies and regulations incorporated into the Everson Shoreline Master Program were developed to assure no net loss of ecological function to the shorelines of the state within the City of Everson shoreline jurisdiction. These provisions must be evaluated to address possible cumulative impacts and methods to avoid or minimize such impacts. Evaluating cumulative impacts shall be consistent with the guiding principle in WAC 173-26-186(8)(d) and should consider:

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

It is recognized that the methods used to determine reasonably foreseeable future development and associated impacts may vary according to local circumstances, including demographic and economic characteristics and the nature and extent of local shorelines.

This evaluation of cumulative impacts shall also consider the effect on the ecological functions of the shoreline that are caused by unregulated activities, development exempt from permitting, effects such as the incremental impact of residential bulkheads, or runoff from newly developed properties. For development projects that may have un-anticipatable or uncommon impacts that cannot be reasonably identified at the time of master program development, the master program policies and regulations shall use the permitting or conditional use permitting processes to ensure that all impacts are addressed and that there is no net loss of ecological function of the shoreline after mitigation.

2.0 EXISTING CONDITIONS

As part of the City of Everson Shoreline Inventory completed in 2006, the various areas within the City and urban growth area (UGA) that are within shoreline jurisdiction were divided into a series of reaches based on environmental features, existing development, zoning, and future development plans and potential. The following sections present a summary of the existing conditions in each reach and sub-reach. For more detailed information, refer to the Everson Shoreline Inventory and Analysis Report (2006). The locations of the various reaches are shown on the City of Everson Shoreline Jurisdiction and Environment Designation Map.

2.1 REACH 1 – NOOKSACK RIVER

Reach 1 includes the Nooksack River and all areas waterward of the ordinary high water mark. This reach includes about one mile of the river within the Everson City limits and urban growth area. The Nooksack River flowing into the City is subject to and significantly affected by the conditions of upstream waters and upstream land use and development. The City of Everson has very little control over the water entering the

City's shoreline jurisdiction. The ecological processes of the river are also affected by the existing land uses within the City. Existing conditions of uplands adjacent to the Nooksack within Everson will be addressed in the following Reach sections. At present, there are no docks, or over-water structures within the Everson City limits, with the exception of the SR 544 Bridge crossing. There is some hard shoreline stabilization, including dikes and groins along some portions of the banks.

2.2 REACH 2

Reach 2 extends from the SR 544 Bridge to the western edge of the city limits on the northern side (right bank) of the Nooksack River. This segment is constrained by riprap and offers limited instream habitat. Land use in this reach includes Riverside Park and the City's wastewater treatment plant, with a small residential area to the east. Within this section, the riparian vegetation consists of grassy lawns and a strip of trees adjacent to the river.

The park portion of this area is a public asset to the City and is used for recreational purposes by residents of Everson as well as by the greater Whatcom County community. Some restoration has been accomplished along the shoreline adjacent to the Park, including the restoration of two groins and the addition of large woody debris to provide fish habitat. Some additional shoreline stabilization has been completed to support the bank where canoes are launched during the annual Whatcom County Ski-to-Sea race.

2.3 REACH 3

Reach 3 is located on the north side of the Nooksack River and includes lands within the Everson UGA west of Reach 2 from the existing City limits to the western extent of the UGA. This area has been divided into three sub-reaches.

Reach 3A

Reach 3A is immediately adjacent to the river and extends from the western edge of the Everson city limits to the westernmost limit of the Everson UGA on the northern side (right bank) of the Nooksack River. This segment is fully forested and is entirely within the FEMA-designated floodway. This Reach is currently undeveloped and is designated as Natural. It contains a mix of vegetation and serves as an undisturbed buffer to protect the River from future development impacts.

Reach 3B

Reach 3B is described as lying north of the Reach 3A and west of the city limits roughly 1,000 feet, in the Everson UGA. This section is undeveloped and is currently being used for agricultural purposes. A large portion of this area is expected to be included in the expansion of Riverside Park for ballfields. This area has been designated Urban Conservancy.

Reach 3C

Reach 3C is identified as being west of Reach 3B and extending to the limits of the UGA. Reach 3C is used for rural residential and some agricultural purposes. The land is flat with larger tracts of open space. This area is designated as a location for future residential development and, as such, has been designated Shoreline Residential. A portion of this sub-reach is also in the FEMA floodway, which will provide an increased buffer between the river and any areas where housing can be developed.

2.4 REACH 4

Reach 4 is located on the south side of the Nooksack River, and the entire reach is within the existing City limits. This Reach has been divided into two sub-reaches.

Reach 4A

Reach 4A extends from SR 544 Bridge to the western edge of the city limits on the southern side (left bank) of the Nooksack River. The Nooksack River forms the boundary on the north side of Reach 4A. The width of Reach 4 is the distance between the ordinary high water mark (OHWM) and the historic topographic break or the tree line. This distance varies between 150 to 250 feet. Much of this area is in the FEMA floodway.

This reach is undeveloped, and contains deciduous riparian forest with remnant wetland characteristics. There is one subdivision located on the southern boundary of this reach. A Natural designation has been proposed for this sub-reach.

Reach 4B

This reach is located immediately to the south of Reach 4A and extends from SR 544 (Everson Road) to the western city limits. Reach 4B borders the vegetation buffer running along the length of the river (within Reach 4A). Reach 4B is largely residential. There are still some undeveloped parcels used for agricultural purposes, but planned development is geared toward residential development. One 20-lot subdivision was recently completed in Reach 4B. This area has been designated Shoreline Residential.

2.5 REACH 5

Reach 5 is a small, fully vegetated area located just east (upstream) of the SR 544 bridge on the south or left bank of the river. It extends eastward to the Everson City limits. Reach 5 is undeveloped and consists of larger trees and shrubby vegetation, which line the shore of the Nooksack River. The majority of the land in Reach 5 is floodway and will not be developed. Reach 5 has been designated as Natural.

2.6 REACH 6

Reach 6 is located upstream of the SR 544 bridge on the north side of the Nooksack River. This Reach extends upstream from the bridge to the City limits and has been divided into three sub-reaches.

Reach 6A

Reach 6A extends from the SR 544 Bridge east approximately 500 feet to a gravel road just east of the old cannery. Reach 6A is on the north bank of the Nooksack River. Reach 6A has a history of high intensity uses including a cannery. Land use in this reach includes a portion of a commercial/industrial building and the remainder is a vacant grass lawn. There is potential for future industrial/commercial development in this reach, which has been designated as High Intensity.

Reach 6B

Reach 6B extends from approximately 500 feet east of the SR 544 Bridge to the eastern edge of the city limits on the right bank of the Nooksack River. It is described as the strip of land between the river and the levee that protects downtown Everson beginning at the eastern edge of Reach 6A and running eastward to the City limits. Land use in this reach

is currently undeveloped, forested riparian bottomland. The width of this area varies between 150 and 300 feet. This reach will remain undeveloped due to its proximity to the river, its tendency to flood and its inclusion in the FEMA floodway. This area has been designated Natural.

Reach 6C

This reach is described as including the area landward of and including the levee beginning at Reach 6A and running parallel to the river. Reach 6C has potential for residential development. Currently it includes a few residences and is adjacent to a larger residential area landward of the Reach. This area has been designated Urban Conservancy because of the potential for multifamily development.

3.0 INTENT OF ENVIRONMENT DESIGNATIONS TO MITIGATE IMPACTS

3.1 AQUATIC

An Aquatic designation allows only a very limited number of activities to take place within Reach 1, the Nooksack River. This designation will serve to protect, restore, and manage the unique characteristics and resources of the area waterward of the ordinary high water mark within Everson's shoreline jurisdiction. This designation is intended to promote no net loss of shoreline ecological functions and wise use of the natural features and resources of shorelines of the state. Except for habitat restoration projects and possibly a boat launch, no development is anticipated in the Aquatic area, and any activity with the potential to impact shoreline functions in this reach would require approval of a shoreline conditional use permit.

3.2 NATURAL

Reaches proposed to be included in the Natural shoreline environment should not see any future impacts that result in a net loss of ecological functions. These Reaches, Reach 3A, 4A, 5, and 6B, will remain untouched by development. The existing native vegetation in these areas will be allowed to mature to help restore the existing ecological functions. Enhanced restoration efforts, such as the planting of native vegetation along the river will also be encouraged in areas under this designation. A Natural designation serves to protect and repair riparian areas throughout the shorelines of the Nooksack River through Everson. This designation requires that only very low intensity uses be allowed in order to maintain the ecological functions and ecosystem-wide processes and to support restoration over time.

3.3 HIGH-INTENSITY

Reach 6A is the only area designated as High-Intensity within the City of Everson's shoreline jurisdiction. The intent of this designation is to provide for high-intensity water-oriented commercial, transportation, and industrial uses while protecting existing ecological functions and restoring ecological functions in areas that have previously been degraded. Future development within the High-Intensity area will be required to include restoration and mitigation plans if deemed necessary by the City to protect ecological functions. More stringent regulations apply to nonwater-oriented commercial/industrial uses, such as significantly increased buffers from the river.

3.4 SHORELINE RESIDENTIAL

Areas designated as Shoreline Residential include Reach 3C and Reach 4B. The intent of this designation is to accommodate residential development that is consistent with shoreline goals while protecting and restoring ecological functions by minimizing shoreline modifications. As growth continues to occur in the area, the City of Everson will need locations for housing. By designating areas Shoreline Residential under this master program, the City can accommodate future development that will serve not only to enhance the local economy, but also that will include restoration and mitigation plans to maintain the quality of the shoreline environment.

3.5 URBAN CONSERVANCY

Reach 2, Reach 3B, and Reach 6C are designated as Urban Conservancy. The intent of this designation is to protect and restore ecological functions in all systems including fish and wildlife habitat conservation areas, open space, floodplain and frequently flooded areas, and other sensitive lands where they exist in urban and developed settings. This designation provides opportunity for a number of development activities that are all regulated to include the protection of the ecological functions and to provide ecological restoration when necessary.

4.0 POTENTIAL FUTURE IMPACTS

4.1 AQUATIC

The Aquatic designation includes the Nooksack River, itself. Little or no development is anticipated below the OHWM of the river. Some restoration and enhancement activities, such as those to improve fish habitat may take place within this area. Although future development is not anticipated within this Reach, it may be necessary at some point to either rebuild the SR 544 Bridge or expand it. Additional utilities may also need to be placed across the Nooksack River. These activities should be able to be completed with minimal or no loss of ecological functions. Policies and regulations are included in the Everson Shoreline Master Program that prohibit projects that result in a net loss of ecological functions. Projects such as the aforementioned activities will be required, at a minimum, to engage in multiple use projects and provide mitigation where unavoidable impacts occur. Projects should be limited in size to protect public views and to allow for the safe, unobstructed passage of fish and wildlife.

Future development along the river's edge may also have an impact on Aquatic areas. Mitigation measure will be required to assure no net loss of ecological function as a result of development on adjoining upland areas. The addition of public access points on the river and the expansion of Riverside Park may also put added pressure on Reach 1. Both of these activities will include restoration and mitigation measures necessary to ensure no net loss of ecological functions.

4.2 NATURAL

There should be no impacts that will result in a net loss of ecological functions throughout the Natural designation areas. This designation is intended to increase ecological functions by establishing and maintaining a sizeable buffer of native vegetation between the river and upland areas of significant development. Reach 3A,

4A, 5, and 6B all are situated along the River to provide riparian habitat and areas for floodwaters. Potential impacts may include increased runoff from adjacent development, but this should be minimal, as future developments will be required to include stormwater treatment and detention and restoration or mitigation measures in their development plans. Restoration opportunities also exist in these areas. Potential activities include the planting of native vegetation, channel and wetland rehabilitation, and possible environmental education opportunities. These Natural designations will see changes over time, not primarily as a result of human development, but rather as a result of the natural processes of the riparian area surrounding the Nooksack River. At times, these natural restoration processes may also be augmented by human enhancement and restoration efforts, such as through the clearing of invasive species and the planting of native vegetation.

4.3 HIGH-INTENSITY

The City of Everson has only a small area designated High-Intensity, Reach 6A. Although there is the potential for development in this area to create cumulative impacts to shoreline ecological functions, the policies and regulations outlined in the Everson master program should result in no net loss of function even in this area. The Everson Shoreline Program requires that all developments other than water-oriented uses must be set well back from the water's edge. The Program also requires future development to include mitigation measures, possible restoration opportunities, and public access points in their development plans. The impacts of this area may include increased runoff from industry and impervious surfaces, and increased human activity on the shorelines. These issues will be mitigated as deemed necessary by the City to minimize impacts. Policies and regulations directing operations and development in this designation will assure no net loss of ecological functions.

4.4 SHORELINE RESIDENTIAL

This Everson Master Program designates two locations for future shoreline residential development. Both of the areas are separated from the Nooksack River by a Natural area, serving as a vegetative buffer. The presence of FEMA floodway areas will also limit the placement of residential structures. Policies and regulations outlined in the master program include provisions encouraging and requiring future development to include mitigation measures, restoration plans, and/or public access opportunities to protect and/or enhance ecological functions. Residential development may have some undesirable impacts and these will be addressed through the substantial development or conditional use permit process with additional mitigation measures included as deemed necessary by the City. Impacts may include increased runoff from development, potential erosion along banks, and increased human pressures on the shorelines. However, development plans will be required to eliminate or substantially decrease these impacts to assure no net loss of ecological functions.

4.5 URBAN CONSERVANCY

The areas designated as Urban Conservancy contain or are planned for two different types of development. Reach 2 (Riverside Park and treatment plant) and Reach 3B (park expansion area) are both used or planned for public purposes, including public access. At these locations, this designation is used to protect resources and ecological functions, while providing opportunities for public access and enjoyment of the Nooksack

River shoreline. Future development in these two areas will assure no net loss of ecological functions and will include restoration projects along the shoreline. Reach 6C serves as a different function, one which more resembles a shoreline residential area. Future development in this area will be encouraged to provide restoration plans and mitigation measures to reduce or eliminate any potential impact that additional development would have on the shoreline. Reach 6C is separated from the Nooksack River by a major levee and by Reach 6B, which contains a significant buffer of vegetation that will serve to mitigate impacts as well.

5.0 ASSURE NO NET LOSS

An important goal of the Everson Shoreline Master Program is to assure no net loss of ecological functions to the shorelines of the state located within the City's shoreline jurisdictional area. The goals, policies, and regulations, that together form this Everson Shoreline Master Program, include development requirements to assure no net loss. The goal of no net loss will be achieved through a number of mechanisms, including development regulations, established vegetation buffers, restoration planning, mitigation requirements, volunteer efforts and conditional use permitting. Future development in Everson is inevitable; however, by limiting the location and types of development allowed within the Everson shoreline area, the City will be able to ensure no net loss of ecological functions on a project-by-project basis and for the Everson shoreline area as a whole.