CITY OF SUMAS

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CITY OF SUMAS
SHORELINE MASTER PROGRAM UPDATE

CUMULATIVE IMPACTS ANALYSIS

TASK 4.2

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CUMULATIVE IMPACTS ANALYSIS
SUMAS SHORELINE MASTER PROGRAM

1.0 INTRODUCTION

Pursuant to the updated Shoreline Master Program Guidelines, WAC 173-26, shoreline master program updates 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 Sumas Shoreline Master Program were developed to assure no net loss of ecological function to the shorelines of the state within the City of Sumas 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 Sumas Shoreline Inventory completed in 2010, 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. For more detailed information, refer to the Sumas Shoreline Inventory and Characterization Report (2010). The locations of the various reaches are shown on the City of Sumas Shoreline Jurisdiction Vicinity Map.

2.1 REACH 1

Reach 1 is defined as the shoreline of the Sumas River south of Front Street and Rock Road and west of Swartwood Road. A portion of the shoreline west of where Bone Creek enters as a tributary falls into Reach 12. This reach is characterized by rural residential development and agriculture (pasture, greenhouse, and tree farm).

2.2 REACH 2

Reach 2 is defined as the western shoreline of the Sumas River, north of Front Street and south of Victoria Street. This reach is characterized by rural residential development and agriculture (pasture/hay).

2.3 REACH 3

Reach 3 is defined as Johnson Creek along the southern city limit boundary. This reach is characterized by a mixture of agriculture and industrial development, with some of the buffers adjacent to industrial uses having been enhanced as part of mitigation for past development activities.

2.4 REACH 4

Reach 4 is defined as Johnson Creek from the southern City limits north to the railroad (south of Front Street). This reach is characterized by agriculture (crop and livestock) and industrial development.

2.5 REACH 5

Reach 5 is defined as Johnson Creek from the railroad south of Front Street to the railroad west of Cherry Street. This reach is characterized by a mix of agriculture, industrial and historic residential development as well as road and railroad crossings.

2.6 REACH 6

Reach 6 is defined as Johnson Creek between the railroad and Cherry Street. This reach is characterized by fully developed commercial properties.

2.7 REACH 7

Reach 7 is defined as Johnson Creek from Cherry Street to Lawson Street. This reach is characterized by fully developed residential areas, a City park and developed commercial properties adjacent to Johnson Creek.

2.8 REACH 8

Reach 8 is defined as Johnson Creek from Lawson Street to the eastern extent of Vancouver Street. This reach is characterized by fully developed residential areas adjacent to Johnson Creek with a small area used for crop agriculture.

2.9 REACH 9

Reach 9 is defined as Johnson Creek from the eastern extent of Vancouver Street to the area south of Wilson Lane. This reach is characterized by fully developed residential areas, light agriculture and a few undeveloped residential parcels.

2.10 REACH 10

Reach 10 is defined as Johnson Creek from the area south of Wilson Lane to Heron Lane and the eastern City limits This reach is characterized by fully developed residential areas adjacent to Johnson Creek.

2.11 REACH 11

Reach 11 is defined as Bone Creek from State Route 9 to the ball field access drive just east of the trailer park area. This reach is characterized by a mix of agriculture, residential development and a trailer/RV park.

2.12 REACH 12

Reach 12 is defined as Bone Creek from the ball field access drive just east of the trailer park area to the Sumas River (Reach 1). This reach is characterized by a mix of developed and undeveloped residential areas, agriculture and a large public recreational area (ball fields).

2.13 REACH 13

Reach 13 is defined as a ditch and seasonal wetland system that drains into Sumas Creek. This reach is characterized by undeveloped agricultural areas and developed industrial areas.

2.14 REACH 14

Reach 14 is defined as Sumas Creek from the western City limits along Kneuman Road (ditch). This reach is characterized by agriculture and wetland mitigation areas located adjacent to Sumas Creek.

2.15 REACH 15

Reach 15 is defined as Sumas Creek from the ditch at Kneuman Road to Bob Mitchell Way. This reach is characterized by undeveloped agricultural parcels, wetland conservation parcels and developed industrial uses.

2.16 REACH 16

Reach 16 is defined as Sumas Creek from Bob Mitchell Way to Johnson Creek. This reach is characterized by a mix of historic residences, agriculture, industrial uses and undeveloped parcels.

3.0 INTENT OF ENVIRONMENT DESIGNATIONS TO MITIGATE IMPACTS

3.1 AQUATIC

As specified in the draft Sumas Shoreline Master Program, the Aquatic designation allows only a very limited number of activities to take place within the areas waterward of the ordinary high water mark. This designation will serve to protect, restore, and manage the unique characteristics and resources of the water bodies within Sumas'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, no development is anticipated in the Aquatic area, and any activity with the potential to adversely 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. Those portions of reaches designated Natural 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, will also be encouraged in areas under this designation. A Natural designation serves to protect and repair shoreline areas at specific locations within the Sumas shoreline area. 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 SHORELINE RESIDENTIAL

Areas designated as Shoreline Residential include those areas within the City of Sumas that are characterized by or planned primarily for residential development. 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 Sumas will need locations for additional residential development in proximity to the shoreline. 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 ensure the long-term protection of the shoreline environment.

3.4 URBAN CONSERVANCY

The intent of the Urban Conservancy designation is to protect and restore ecological functions in all systems including fish and wildlife habitat conservation areas, open space, and other sensitive lands where they exist in urban and developed settings. This designation provides opportunity for a mixture of different uses that are all regulated to include the protection of the ecological functions and to provide ecological restoration when necessary.

3.5 URBAN CONSERVANCY - WETLAND

The intent of the Urban Conservancy-Wetland designation is to protect and restore ecological functions in all systems including fish and wildlife habitat conservation areas, open space, and other sensitive lands where they exist in urban and developed settings, specifically where adjacent to wetlands located within the 100-year floodplain. This designation provides opportunity for a mixture of different uses that are all regulated to include the protection of the ecological functions and to provide ecological restoration when necessary. Two sub-categories of wetlands have been designated to identify those wetlands intended for long-term conservation (Conservancy) and those that may be impacted through development where mitigation has been provided (Urban 2) sufficient to mitigate impacts to ecological functions.

4.0 POTENTIAL FUTURE IMPACTS

4.1 REACH 1

Future development in Reach 1 will include a mix of low-, medium- and high-density residential development, all of which will be set back from the immediate shoreline edge. Standard buffers of 150 feet, with buffer reductions to 100 feet where buffer enhancement is provided, will ensure no net loss of ecological function within this reach.

4.2 REACH 2

Future development in Reach 2 will include a mix of high-density and low-density residential development, all of which will be set back from the immediate shoreline edge. Standard buffers of 150 feet, with buffer reductions to 100 feet where buffer enhancement is provided, will ensure no net loss of ecological function within this reach.

4.3 REACH 3

Future development in Reach 3 will include limited industrial development where located outside of the Johnson Creek flood corridor. Any such development will be set back a minimum of 100 feet from the shoreline edge. Future enhancement projects using native vegetation are anticipated within this reach to continue the enhancement efforts previously completed by developers as mitigation for development-related impacts.

4.4 REACH 4

Future development within Reach 4 will likely be very limited due to the presence of the Johnson Creek flood corridor (floodway), which blocks access to the undeveloped portions of some parcels. Any future industrial development will be set back at least 100 feet from the shoreline edge and all impacts associated with creation of new impervious surfaces will be fully mitigated consistent with Department of Ecology standards.

4.5 REACH 5

Future development in Reach 5 will include some new industrial uses, including redevelopment of historic residences located on industrially zoned properties. All new development and redevelopment will be required to be set back at least 100 feet from the shoreline edge. Mitigation will be required for any impacts to Urban-2 wetlands. All of these requirements will ensure no net loss of ecological function within this reach.

4.6 REACH 6

No new development is anticipated within Reach 6 based on the fully developed commercial nature of this reach. Some natural restoration of functions will likely occur over time based on limitations on human encroachment into required buffers. This reach should not see any loss of ecological function and should see some increased function over time.

4.7 REACH 7

Future development in Reach 7 will likely be very limited based on the fully developed character of this residential area. Some residential in-fill may be possible; however,

standard buffers will require development to be set back from the shoreline edge. Any new development will need to ensure no net loss of ecological function and will be required to provide mitigation for unavoidable impacts. Some property owner initiated restoration is anticipated within this reach. These measures will ensure no net loss of ecological function, and restoration over time will be encouraged.

4.8 REACH 8

Future development in Reach 8 will likely be very limited based on the fully developed character of this residential area. Some residential in-fill may be possible; however, standard buffers will require development to be set back from the shoreline edge. Any new development will need to ensure no net loss of ecological function and will be required to provide mitigation for unavoidable impacts. Some property owner initiated restoration is anticipated within this reach. These measures will ensure no net loss of ecological function, and restoration over time will be encouraged.

4.9 REACH 9

Future development in Reach 9 will likely be very limited based on the fully developed character of this residential area. Some residential in-fill may be possible; however, standard buffers will require development to be set back from the shoreline edge. Any new development will need to ensure no net loss of ecological function and will be required to provide mitigation for unavoidable impacts. Some property owner initiated restoration is anticipated within this reach. These measures will ensure no net loss of ecological function, and restoration over time will be encouraged.

4.10 REACH 10

Future development in Reach 10 will likely be very limited based on the fully developed character of this residential area. Some residential in-fill may be possible; however, standard buffers will require development to be set back from the shoreline edge. Any new development will need to ensure no net loss of ecological function and will be required to provide mitigation for unavoidable impacts. Some property owner initiated restoration is anticipated within this reach. These measures will ensure no net loss of ecological function, and restoration over time will be encouraged.

4.11 REACH 11

Future development within Reach 11 impacting wetlands associated with Bone Creek will likely be very limited due to the narrow width of the wetland corridor and the fact that the majority of this reach is already developed. Any loss of function that occurs as a result of new development will be required to be mitigated through enhancement of existing resources and this should ensure no net loss of ecological function within this reach. Restoration will be encouraged in conjunction with new developments.

4.12 REACH 12

Future development in Reach 12 will likely include both high-density and medium-density residential development in the northern portion of this reach. The southern portion of the reach is fully developed adjacent to the new recreational fields. Standard buffers will require that new development is set back from the shoreline edge, and any loss of function resulting from new development will require mitigation, typically in the

form of enhancement of buffer areas adjacent to Bone Creek. These requirements should ensure no net loss of ecological functions within this reach. Restoration will be encouraged in conjunction with new residential developments.

4.13 REACH 13

New development within Reach 13 will include new industrial uses. Those wetlands receiving a Conservancy designation will not be impacted and the functions provided by these high-value wetlands will be preserved. Those wetlands designated Urban-2 may be filled to accommodate new industrial development on the condition that all functions are fully mitigated to ensure no net loss of ecological function within this reach.

4.14 REACH 14

New development within Reach 14 potentially affecting wetlands associated with Sumas Creek is not anticipated based on the presence of the large wetland mitigation area (Conservancy wetland designation) in the western portion of this reach. Those wetlands designated Urban-2 may be filled to accommodate new development on the condition that all functions are fully mitigated to ensure no net loss of ecological function within this reach.

4.15 REACH 15

Future development within Reach 15 is likely to include some expansion of industrial uses in the vicinity of wetlands associated with Sumas Creek. Conservancy-designated wetlands will not be impacted and their functions will be preserved. Wetlands designated Urban-2 may be filled as long as mitigation is provided to offset all lost functions. These requirements will ensure no net loss of ecological function within this reach.

4.16 REACH 16

Future development within Reach 16 will likely include some redevelopment of historic residences that will be replaced by new industrial uses. Standard buffers will require that new uses be set back from wetlands. Conservancy wetlands will be fully protected and their functions will be preserved. Some Urban-2 wetlands may be filled on the condition that all lost functions will be fully mitigated. These requirements will ensure no net loss of ecological function within this reach.

5.0 ASSURE NO NET LOSS

An important goal of the Sumas 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 comprise the Sumas 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, vegetation conservation areas and buffers, avoidance of hazard areas, restoration planning, mitigation requirements, volunteer efforts and conditional use permitting. Although much of the shoreline area within the City has already been developed, new development in Sumas is inevitable. However, by limiting the location and types of development allowed within the Sumas shoreline area,

the City will be able to ensure no net loss of ecological functions on a project-by-project basis and for the Sumas shoreline area as a whole.