

**GRANT NO. G1000069**

**NO NET LOSS REPORT  
(ORD. 549 - ATTACHMENT B)**

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**for the Town of South Prairie: South Prairie Creek**

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# NO NET LOSS REPORT

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## TOWN OF SOUTH PRAIRIE: SOUTH PRAIRIE CREEK

### 1 INTRODUCTION

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The Shoreline Management Act guidelines (Guidelines) require local shoreline master programs (SMPs) to regulate new development to “achieve no net loss of ecological function.” This No Net Loss (NNL) Report provides a summary of how the development of the SMP and supporting documents, including the Shoreline Inventory and Analysis Report, Shoreline Restoration Plan, and Cumulative Impacts Analysis, will ensure that ecological functions will not be degraded or minimized over time as the SMP is implemented. A Cumulative Impacts Analysis evaluated the effects of foreseeable development under the proposed SMP and demonstrated that the goals, policies and regulations in the proposed SMP, combined with recommendations in the Shoreline Restoration Plan, will prevent degradation of ecological functions relative to the existing conditions, as documented in the Town’s Shoreline Inventory and Analysis Report.

### 2 SHORELINE JURISDICTION

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The entire South Prairie Creek within Town limits is a regulated Shoreline. No other streams or lakes within the Town of South Prairie are considered part of shoreline jurisdiction.

In addition to the river waterbodies, shoreline jurisdiction includes shorelands 200 feet upland from the ordinary high water mark, floodways (either as defined by the Federal Emergency Management Agency (FEMA) or as indicated by actual flooding occurring with “reasonable regularity”), floodplains located within 200 feet of floodways, and associated wetlands. Tributary streams to shoreline waterbodies which are located in shoreline jurisdiction are not shorelines, but will be regulated as critical areas under the updated Shoreline Master Program.

The total area subject to the Town’s updated SMP, not including aquatic area, is approximately 47 acres, and encompasses approximately 4,072 feet of shoreline.

## 3 SHORELINE ENVIRONMENT DESIGNATION

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In addition to the Aquatic environment designation for areas waterward of the South Prairie Creek ordinary high water mark, a single upland designation was proposed based on these site specific conditions and likely changes in land use. The single proposed environment designation is described below.

The Shoreline Inventory and Analysis Report recommended the adoption of a single upland designation of Urban Conservancy; however, due to the predominant residential nature of the Town's shoreline, the Town decided to use the Shoreline Residential environment designation instead.

### 3.1 Shoreline Residential

Shoreline Residential areas were identified as those areas designated to accommodate existing and future residential uses. The Shoreline Residential designation will also apply to the limited number of non-residential uses within shoreline jurisdiction, including Veterans Park and a single commercial use. The proposed SMP requires mitigation sequencing for any projects with potential adverse impacts to environmental conditions, and it specifies that residential development must be located and designed to ensure no net loss of ecological functions and to avoid the need for future armoring or flood control measures. Vegetative buffer standards combined with critical area standards, floodway development regulations, and standards for vegetation conservation outside of the regulated buffer provide assurance that shoreline vegetative and hydrologic functions along the stream will be maintained.

## 4 GOALS, POLICIES, AND REGULATIONS

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The SMP contains numerous general policies, with supporting regulations (see SMP), intended to protect the ecological functions of the shoreline and prevent adverse cumulative impacts. These policies are summarized below.

- CONS-1.* Continue to amend and adopt land development regulations that ensure no net loss of shoreline ecological functions.
  
- CONS-2.* Ensure compatibility of shoreline land uses with topography, geology, soil suitability, surface water, groundwater, wetlands, and wildlife.

- CONS-3.* Preserve existing vegetation as much as possible to maintain vital shoreline ecological functions.
- CONS-4.* Development on slopes in excess of 30 percent, the South Prairie Creek shoreline, other wetlands, and critical areas should be discouraged.
- FHP-1.* Regulate land use and development to protect the citizens from flood hazards.

The Town's Shoreline Inventory and Analysis Report included several specific shoreline management recommendations to incorporate into the updated SMP. Several key recommendations and discussions of whether or how the proposed SMP implemented these recommendations are identified below:

1. Shoreline Critical Areas Regulations

The Shoreline Inventory and Analysis Report recommended maintaining adequate buffer widths on South Prairie Creek and associated wetlands. The proposed SMP establishes a 50 foot buffer on South Prairie Creek and establishes shoreline wetland buffers of 35-300 feet (depending on wetland rating and proposed land use), consistent with the Town's existing critical areas regulations applicable outside of shoreline jurisdiction.

2. Flood Hazard Reduction

The Shoreline Inventory and Analysis Report recommended consideration of how and if to incorporate a response to new National Flood Insurance Program guidelines that resulted from a National Marine Fisheries Service Biological Opinion. The proposed SMP includes several provisions that are consistent with the intent of new FEMA guidelines, including policies and regulations in Section 5.5 (Fill), Section 5.8 (Residential Development), Section 5.10 (Shoreline Stabilization), and Section 4.3 (Flood Hazard Reduction). Together, these proposed measures are consistent with the concept of maintaining flood capacity and functional floodplain habitat.

The Shoreline Inventory and Analysis Report also noted that the SMP should provide maximum flexibility for developing and maintaining flood hazard reduction measures as needed to continue to protect existing areas. Regulations in Section 4.3.2 of the SMP provide this flexibility while limiting the potential for development of new structures that would necessitate such structures.

### 3. Vegetation Conservation Regulations

In addition to recommending shoreline buffers for South Prairie Creek, as discussed above, the Shoreline Inventory and Analysis Report recommended policies and regulations to encourage the control of invasive or noxious vegetation. Section 4.5 of the SMP includes a policy to encourage management and control of noxious and invasive weeds, as well as an accompanying regulation that allows for hand removal and spot spraying of invasive or noxious weeds.

### 4. Water Quality and Stormwater

The Shoreline Inventory and Analysis Report recommended including policies and recommendations based on water quality studies. The Shoreline Inventory and Analysis Report also recommended consideration of whether special stormwater management policies and regulations may be necessary and feasible beyond the standard Town requirements contained in the adopted *Ecology Stormwater Management Manual for Western Washington*. The proposed SMP goes beyond the Ecology Stormwater Manual by requiring that all shoreline uses, activities, and developments use best management practices (BMP) and Low Impact Development techniques where feasible. These measures should help limit the water quality impairments that have been identified in South Prairie Creek.

### 5. Prohibited Uses and Modifications

Except for the purpose of shoreline restoration, the Shoreline Inventory and Analysis Report suggested prohibiting the following shoreline uses and modifications in shoreline jurisdiction: overwater structures (except public bridge crossings); groins and weirs; agriculture; aquaculture; boating facilities; forest practices; industry; and mining. All of these recommendations were followed in the SMP.

### 6. Shoreline Habitat and Natural Systems Enhancement Projects

The Shoreline Inventory and Analysis Report also recommended including incentives for shoreline restoration, particularly in areas identified as having lower function. The SMP includes a policy that the Town and private entities are encouraged to seek funding from state, federal, private and other sources to implement restoration, enhancement, and acquisition projects, particularly those that are identified in the Restoration Plan or the local watershed plan. Another policy addresses permit processing guidelines that will streamline the review of restoration-only projects.

## 5 RESTORATION OPPORTUNITIES

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The Town's Shoreline Restoration Plan, prepared as part of this SMP update, will serve as a framework for the Town and its restoration partners to identify and implement opportunities to improve impaired ecological functions in the Town's shorelines. Several programmatic and project opportunities were identified to address ecological impairments identified in the Shoreline Inventory and Analysis Report. Restoration recommendations focus on actions to address known water quality impairments in South Prairie Creek, including sewer facility upgrades, participation in TMDL adaptive management meetings, and stormwater drainage maintenance, among others. The Shoreline Restoration Plan identified a number of entities with whom the Town may partner to achieve its shoreline restoration goals.

## 6 CUMULATIVE IMPACTS

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The Cumulative Impacts Analysis determined that the proposed SMP provides a high level of protection to shoreline ecological functions. The report indicated that on its own, the proposed SMP, which includes the Shoreline Restoration Plan, is expected to protect and improve shorelines within the Town of South Prairie while accommodating reasonably foreseeable future shoreline development, resulting in no net loss of shoreline ecological function.

The following are some of the key features identified in the Cumulative Impacts Analysis that protect and enhance shoreline ecological functions to ensure that the no net loss standard is met.

- Development on many of the vacant lands in the Town is encumbered by the presence of a broad floodway, potential associated wetlands, and non-shoreline streams. SMP regulations and shoreline critical area buffers will limit the effects of development in these areas.
- Of those parcels that are either vacant or subdividable and are not constrained by critical area buffers or the floodway, only six have shrub or forested vegetation that extends beyond 50 feet from the shoreline. Therefore, the 50 foot buffer standard will protect the remaining intact forested and shrub vegetation in most cases. If shrub and forested vegetation is removed, mitigation sequencing and compensatory mitigation measures will be required.

- Water quality and quantity impacts would be limited through the use of Low Impact Development and other stormwater management approaches.
- Projects with potential for significant adverse ecological effects will need to follow mitigation sequencing to avoid, minimize and mitigate any impacts.
- The SMP includes an emphasis on achieving no net loss of shoreline ecological functions throughout shoreline jurisdiction.

In addition, the Town's Shoreline Restoration Plan details a plan to track development trends and ecological functions over time, which will allow the Town to monitor and ensure that no net loss is occurring.

The cumulative effect of restoration over time between reviews should be evaluated along with an assessment of development impacts that are not fully mitigated to determine effectiveness at achieving a net improvement to shoreline ecological functions. Town staff is encouraged to track land use and development activity, including exemptions, within shoreline jurisdiction. With each project application, staff should consider whether implementation of the SMP is meeting the basic goal of no net loss of ecological functions relative to the baseline condition established in the Shoreline Inventory and Analysis Report. A staff report may be assembled to coincide with Comprehensive Plan updates and may be used, in light of the goals and objectives of the Shoreline Master Program, to determine whether implementation of the SMP is meeting the basic goal of no net loss of ecological functions relative to the baseline condition established in the Shoreline Inventory and Analysis Report. In the long term, the Town should be able to demonstrate a net improvement in the Town of South Prairie's shoreline environment.

## 7 CONCLUSIONS REGARDING NO NET LOSS

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The SMP update process has provided the opportunity to characterize existing environmental conditions, anticipate future impacts to shoreline functions, and identify restoration opportunities within the Town of South Prairie's shoreline jurisdiction. The SMP update was based on the evaluation of existing conditions identified through the Shoreline Inventory and Analysis Report. The proposed SMP provides a high level of protection to shoreline ecological functions. Major elements of the SMP that ensure no net loss of ecological functions fall into four

general categories: 1) environment designations (SMP Article 3), 2) general provisions (SMP Article 4), 3) shoreline use and modification provisions (SMP Article 5), and 4) Shoreline Restoration Plan.

The Shoreline Inventory and Analysis Report provided the information necessary to assign a single environment designation to the Town's shoreline. Shoreline uses and modifications were then individually determined to be either permitted (as substantial developments or conditional uses) or prohibited.

Regulations emphasize avoidance and minimization of ecological impacts primarily via protection of vegetation. These factors are balanced with uses and modifications that are essential to maintaining the existing development and necessary modifications. Recommendations from the Shoreline Inventory and Analysis Report were weighed and generally followed in the development of the SMP. Deviations from the Inventory and Analysis Report recommendations were made to ensure that 1) regulations did not interfere with the potential for shoreline restoration or enhancement, or prevent future public access/recreation improvements; or 2) existing uses were allowed to continue to operate. All of the shoreline modification regulations emphasize minimization of size of structures and use of appropriate materials, and use of designs that do not degrade and may even enhance shoreline functions. The proposed SMP emphasizes protection and enhancement of shoreline resources such that no net loss of ecological functions will be achieved over time.

Several potential restoration projects, programs, and partners were identified in the Shoreline Restoration Plan. Specific opportunities and/or implementation strategies for restoration both within and outside of shoreline jurisdiction were proposed.

In summary, the following key features identified in the proposed SMP protect and enhance shoreline ecological functions.

- Retention of native vegetation and/or mitigation for unavoidable impacts to shoreline vegetation as part of future development in shoreline jurisdiction.
- Water quality and quantity standards for construction and post-construction periods.
- Emphasis on achieving no net loss of shoreline ecological functions throughout shoreline jurisdiction, including development of water-dependent uses.

Given the above provisions of the SMP, including the Shoreline Restoration Plan, implementation of the proposed SMP is anticipated to achieve **no net loss of ecological functions in the Town of South Prairie's shoreline.**

## 8 REFERENCES

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The Watershed Company. May 2012. Cumulative Impacts Analysis for the Town of South Prairie's Shoreline: South Prairie Creek. Prepared for the Town of South Prairie, South Prairie, WA.

The Watershed Company. April 2011. Shoreline Inventory & Analysis Report for the Town of South Prairie: South Prairie Creek. Prepared for the Town of South Prairie, South Prairie, WA.

The Watershed Company. May 2012. Shoreline Restoration Plan for the Town of South Prairie's Shoreline: South Prairie Creek. Prepared for the Town of South Prairie, South Prairie, WA.