

ACKNOWLEDGMENTS

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INTRODUCTION

BACKGROUND

This report is the cumulative impacts analysis for the City of Toledo and its urban growth area. This plan is meant to provide a planning-level framework for understanding how and where shoreline ecological functions are anticipated to be affected by future development and whether this development will cause a net loss of shoreline functions in the City and its urban growth area.

TIMELINE

The report has been created as part of the Shoreline Master Program and is included in Phase 4 of the overall update. A timeline for the complete Shoreline Master Program update is shown below:

TABLE 1

Timeline for the Shoreline Master Program Update for the City of Toledo

Phase	Update Schedule	Timeline
1	<ul style="list-style-type: none">• Prepare Jurisdiction Maps• Prepare a Public Participation Plan	Fall 2012
2	<ul style="list-style-type: none">• Analyze and characterize shoreline conditions	Winter 2012
3	<ul style="list-style-type: none">• Complete Draft Shoreline Master Program Update• Complete Cumulative Impact Analysis Report	Spring 2013
4	<ul style="list-style-type: none">• Complete Draft Restoration plan and Implementation Strategy• Complete No Net Loss Report	Winter 2013 Spring 2014
5	<ul style="list-style-type: none">• Conduct public hearings• Planning Commission Recommendation• City Council Action	Spring- Summer 2014
6	<ul style="list-style-type: none">• Ecology Review• Ecology Action• Final Adoption by Ecology and the City Council	Spring- Summer 2014

PURPOSE AND SCOPE OF PLAN

This document has been prepared to comply with the state's Shoreline Master Program (SMP) guidelines for cumulative impact analyses (WAC 173-26-201(2)). The guidelines are meant to ensure that SMP updates include shoreline policies and regulations that ensure that future development will cause no net loss of shoreline ecological functions in the shoreline environment. The concept of cumulative impacts and no net loss from the SMA is depicted within Figure 1.

Cumulative Impacts and No Net Loss of Shoreline Ecological Functions

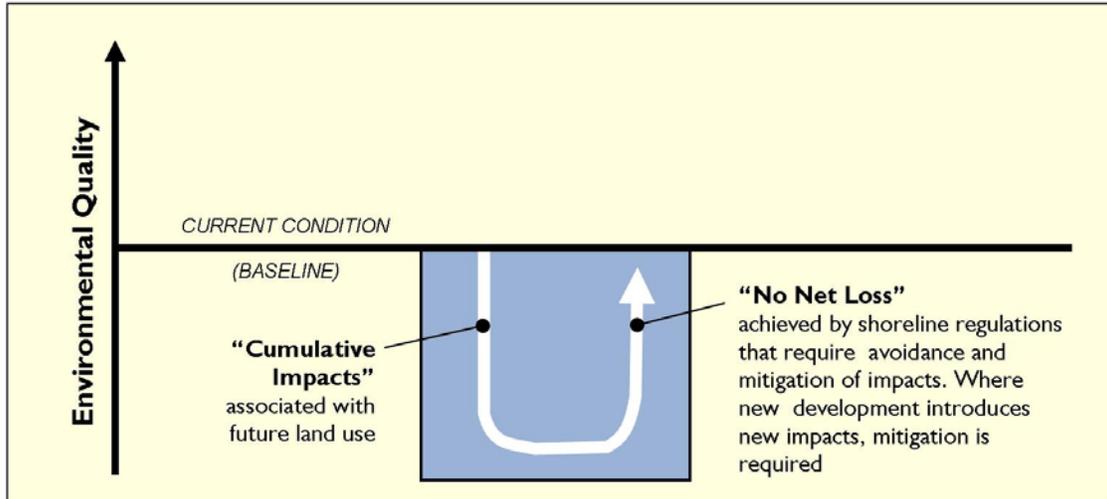


FIGURE 1

Conceptual View of Cumulative Impacts and No Net Loss

This cumulative impact analysis describes the anticipated shoreline development within the City of Toledo over time and assesses the total collective impacts of such development on future shoreline ecological functions. This analysis is a key step in forecasting the future and proactively dealing with potential impacts to shoreline functions. The SMP guidelines recommend that the analysis consider:

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

Further, as part of this analysis, the Shoreline Management Act directs master programs to “include policies and regulations designed to achieve no net loss of those ecological functions” (WAC 173-26-186). This protection of shoreline ecological functions, according to the guidelines that implement the act, is accomplished through the following:

- Meaningful understanding of current shoreline ecological conditions;

- Regulations and mitigation standards that ensure that permitted developments do not cause net loss of ecological functions;
- Regulations that ensure exempt developments do not result in net loss of ecological functions;
- Goals and policies for restoring ecologically impaired shorelines;
- Regulations and programs that fairly allocate the burden of mitigating cumulative impacts among development opportunities; and
- Incentives and voluntary measures designed to restore and protect ecological functions.

METHODS AND SOURCES OF INFORMATION

To determine whether the Toledo Shoreline Master Program has achieved this standard of no net loss of shoreline functions, this document has considered:

- Existing development within the shoreline environment;
- Allowed development under the Shoreline Master Program;
- Foreseeable development within the City and the potential impacts of this development on the shoreline environment;
- The effect of the proposed Shoreline Master Program and other regulations on these potential impacts; and
- Whether the regulations will ensure no net loss of shoreline ecological functions.

EXISTING LAND USE WITHIN THE TOLEDO SHORELINE ENVIRONMENT

Existing land uses within the segments of the Cowlitz River that are located in Toledo are detailed within the *Shoreline Inventory and Characterization - Shoreline Master Program Update for Toledo* (2013). This section largely duplicates the information from the inventory, but presents the information in a slightly modified version for this report.

Cowlitz River Shoreline: The Cowlitz River shoreline assessment area is a 24 acre area with 4,300 feet of shoreline within the city of Toledo corporate limits. Small wetland areas occur sporadically along the bottom of the river bank but only make up about 5% of the assessment area. Due to flatter topography to the southwest of town, most of the City

would become a peninsula between the river and backed up floodwaters on the west side of town during a 100-year flood event.

The area contains 3 commercial parcels, 12 public parcels (City, County and State) and 29 residential parcels. Most of the parcels have been developed, with the exception of a few parcels in both the northeast tip and southwest tip of the assessment area, totaling 8 acres of undeveloped properties. Future land use designations for 1.4 acres of the undeveloped properties will remain residential with the remaining 6.6 acres of publically owned properties having some potential to develop in the future.

TABLE 2

EXISTING SHORELINE DEVELOPMENT CHARACTERISTICS

Toledo: Cowlitz River Shoreline	Acreeage	Total Number of Lots Subject to SMP	Total Number of Buildings on Lots Subject to SMP	Total Number of Buildings Located within the Shoreline Environment
Primarily Residential	24	44	24	24

ALLOWED LAND USE WITHIN THE TOLEDO SHORELINE ENVIRONMENT

Recognizing these existing conditions, the Shoreline Master Program has established two Shoreline Designations for the City of Toledo: Urban Conservancy, High Intensity and Aquatic. The Urban Conservancy designation has been crafted to recognize the relatively undeveloped nature of the existing shorelines within Toledo, the High Intensity designation applies to those shoreline areas outside of the 200 foot buffer from the Ordinary High Water Mark (OHWM) and the aquatic designation applies to those portions of the Cowlitz River that are waterward of the OHWM.

These designations generally allow different land uses and are subject to different land use regulations. A list of the uses and activities that are allowed within the shoreline designations is presented in Table 4 and a list of required development standards for the designations is provided in Table 5. Additional use standards applicable to each of these uses and activities can be found in Section 7 of the Shoreline Master Program.

Recognizing these existing conditions, the Shoreline Master Program has established two Shoreline Designations for the City of Toledo: Urban Conservancy and Aquatic. The Urban Conservancy designation has been crafted to recognize the predominant residential nature of the existing shorelines within Toledo and the aquatic designation applies to those portions of the Cowlitz River that are waterward of the ordinary high water mark.

These designations generally allow different land uses and are subject to different land use regulations. A list of the uses and activities that are allowed within the shoreline designations is presented in Table 3 and a list of required development standards for the designations is provided in Table 4. Additional use standards applicable to each of these uses and activities can be found in Section 7 of the Shoreline Master Program.

TABLE 3

ALLOWED USES AND ACTIVITIES WITHIN THE SHORELINE ENVIRONMENT DESIGNATIONS

USES & ACTIVITIES	Urban Conservancy	Aquatic
Agriculture	P	NA
Aquaculture	X	X
Boating Facilities	X	X
Commercial	C ¹ / P ²	X
Forest Practices	X	X
Industrial	X	X
Mining	X	X
Recreation	C ¹ / P ²	C
Residential • Single-Family	C ¹ / P ²	X
Solid Waste Disposal	X	X
Transportation • Roads and Railroads • Shared Use Path	C ¹ / P ² P	C C
Utilities	C ¹ / P ²	C

- P = Permitted Use; Use may require Substantial Development Permit or statement of exemption approval
 C = Requires a Shoreline Conditional Use Permit
 X = Prohibited; not eligible for a Substantial Development Permit or Shoreline Conditional Use Permit
 NA = Not applicable.
- 1 = Within two hundred (200) feet from the ordinary high water mark
 2 = Beyond two hundred (200) feet from the ordinary high water mark

TABLE 4
Regulations within the Shoreline Environment Designations

REGULATIONS	Urban Conservancy	Aquatic
Agriculture		
OHWM setback	*	NA
Building height	35'	NA
Mining		
OHWM setback	*	NA
Building Height	25'	NA
Recreation Development		
OHWM setback	*	NA
Building Height	25'	NA
Residential/Commercial Development		
Single-Family Dwellings		
OHWM setback	*	NA
Maximum Density	Per Zoning	NA
Building Height	35'	NA
Maximum Impervious Surfaces	30%	NA
Transportation		
Roads and Railroads		
OHWM setback	*	NA
Trails/Shared Use Paths		
OHWM setback	*	NA
Utilities		
OHWM setback	*	NA
Building height	35'	NA

* = Use must be located outside of the 200 foot buffer from OHWM.
 OHWM = Ordinary high water mark
 NA = Not applicable.

In addition to these requirements, shoreline modifications are also allowed within the shoreline environment. Standards for these modifications are listed within Table 5 and supplemented by the policies and regulations within Section 8 of the Shoreline Master Program.

TABLE 5

Shoreline Modifications by Shoreline Environment Designation

SHORELINE MODIFICATIONS	Urban Conservancy	Aquatic
Dredging	NA	C
Fill		
• Ecological Restoration Project	P	P
• All Other Activities	C	C
Shoreline Stabilization		
• Restoration and Enhancement	P	P
• Bioengineering	P	C
• Revetment and Gabion	C	C
• Bulkhead	C	C
• Dike, Levee, and Instream Structure	C	C

P = Modification may require Substantial Development Permit or statement of exception approval.
 C = Requires a Shoreline Conditional Use Permit.
 NA = Not applicable.

FORESEEABLE DEVELOPMENT

Given these types of development that are allowed within the Shoreline Master Program, as well as the existing character of the shoreline within the Toledo, the following amount of development is anticipated. This amount of foreseeable development has been derived from the following sources:

- The City of Toledo Municipal Code and Critical Areas Ordinance; and
- The City of Toledo Land Development Plan.

TABLE 6

Foreseeable Development for the Shoreline Environment – Cowlitz River

Shoreline Segment	Proposed Designation	Foreseeable Development
Cowlitz River Shoreline	Urban Conservancy within 200 foot buffer from OHWM	Single-family development primarily on existing lots. Additionally, public access points to the river.

With this anticipated level of development, some impacts will occur to the shoreline environment. However, the Shoreline Master Program has been designed to mitigate any

potential environmental impacts that may occur. Tables 7 through 12 contain an analysis of the potential impacts that a development may have, proposed measures to mitigate the potential impact provided within the Shoreline Master Program, and the cumulative impacts of several developments given the proposed SMP is adopted.

TABLE 7

Commercial Development on Existing Lots

Foreseeable Development	Potential Impact	Mitigation	Cumulative Impact
Commercial Development within and adjacent to Cowlitz River Shoreline	Removal of riparian vegetation and addition of impervious surfaces within the 200-foot buffer from OHWM.	All commercial development must comply with the Critical Areas Ordinance and regulations as adopted within the Shoreline Master Program. Development must not remove more than 15% of existing riparian vegetation or exceed 30% impervious surfaces	No net loss in ecological functions is anticipated.

TABLE 8

Single-Family Development on Existing Lots

Foreseeable Development	Potential Impact	Mitigation	Cumulative Impact
Residential Development within and adjacent to Cowlitz River Shoreline	Removal of riparian vegetation and addition of impervious surfaces within the 200-foot buffer from OHWM.	All residential development must comply with the Critical Areas Ordinance and regulations as adopted within the Shoreline Master Program. Development must not remove more than 15% of existing riparian vegetation or exceed 30% impervious surfaces.	No net loss in ecological functions is anticipated.

TABLE 9
Single-Family Units on Lots Created Through a Subdivision Process

Foreseeable Development	Potential Impact	Mitigation	Cumulative Impact
Residential Development within and adjacent to the NE portion of the Cowlitz River Shoreline	Removal of riparian vegetation and addition of impervious surfaces within the 200-foot buffer from OHWM.	All residential development shall not allow structural shoreline stabilization, improvements within critical buffer areas, significant vegetation removal that adversely impacts ecological functions, activities causing significant erosion, reduction in slope stability or increased flood hazard or erosion in the new development or to other properties.	No net loss in ecological functions is anticipated.

TABLE 10
Transportation

Foreseeable Development	Potential Impact	Mitigation	Cumulative Impact
Roads and Parking Associated with Development within and adjacent to the Cowlitz River Shoreline	New roadways and parking lots have the potential to increase pervious surfaces and stormwater runoff into the Cowlitz River, and could affect habitat, depending on the placement of the facility.	Transportation infrastructure within the shoreline environment is expected to be controlled by the standards within the Critical Areas Ordinance and regulations as adopted within the Shoreline Master Program.	No net loss in ecological functions is anticipated.

TABLE 11

Utilities

Foreseeable Development	Potential Impact	Mitigation	Cumulative Impact
Utility installations associated with Development within and adjacent the Cowlitz River Shoreline	Utility installations have the potential to affect habitat quality and sediment generation.	All utilities must be designed and located to assure no net loss of shoreline ecological functions, preserve the natural landscape and minimize conflicts with planned land and shoreline uses.	No net loss in ecological functions is anticipated.

TABLE 12

Public Access

Foreseeable Development	Potential Impact	Mitigation	Cumulative Impact
Public Access within and adjacent to the Cowlitz River Shoreline	Public Access to the Cowlitz River may adversely impact the environmental functions of shoreline areas through the destruction of habitat and the delivery and transport of sediment, among other items.	Public access points and recreational facilities are to be designed to minimize the impact on shoreline functions, in part by being buffered from sensitive ecological features and providing limited and controlled access to sensitive features and the water's edge where appropriate.	No net loss in ecological functions is anticipated.

POTENTIAL BENEFITS OF OTHER REGULATIONS

In addition to the *Proposed Shoreline Master Program*, other state and federal regulations apply to Toledo's shoreline jurisdiction. These state and federal regulations include, but are not limited to: the Endangered Species Act (ESA), which seeks to protect and recover federally listed endangered species; the Clean Water Act (CWA), which seeks to protect water quality and regulate the excavation and dredging of rivers; Hydraulic Project Approval (HPA), which regulates projects that change waters of the

state and affect fish habitat; and the National Pollution Discharge and Elimination System (NPDES) which regulates discharges into surface waters.

Additionally, the State Environmental Protection Act (SEPA) requires an assessment of environmental impacts for projects or a jurisdiction's legislative actions that are subject to the act, and this review is intended to provide a list of possible environmental impacts that may occur as a result of a project or a change in policy. This SEPA process helps identify potential impacts that may need to be mitigated or conditioned as result of a proposal, and could ultimately result in the denial of a project.

Taken together, these additional federal and state regulations will further ensure that there is no net loss of shoreline ecological functions along the Cowlitz River within the City of Toledo.

SUMMARY

Considering current conditions, the regulatory framework, and the foreseeable development along shorelines, it is anticipated that there will be no net loss of ecological functions under the *Proposed Shoreline Master Program for the City of Toledo* (2013). Foreseeable development within the Toledo shoreline environment will include some commercial development, and the creation of amenities and facilities to support this development. The regulations within the Shoreline Master Program will ensure that these future potential developments will be mitigated in a manner commensurate with the impacts expected from each of the future developments.

RESOURCES

City of Toledo, 2008, Land Development Code