Quinault Indian Reservation Shorelines Management Plan Framework

Framework including marine shorelines, river shorelines, and lake shorelines.

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This **Quinault Indian Reservation Shorelines Management Plan Framework**,
is completed in the fulfillment of a Contract entered into by the
Quinault Indian Nation and
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This planning effort has been completed with the consultation by a Planning Committee comprised of representatives of administrative Divisions of the Quinault Indian Nation, including the Division of Community Development, Division of Natural Resources, Division of Centralized Communications, and planning consultants from Kamiak Ridge, LLC.

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Acronyms Used

Quinault Indian Nation (QIN) 2

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Chapter 1. Introduction of this Document

This document, **Shorelines Management Framework for the Quinault Indian Reservation**, has been requested by the Quinault Indian Nation Business Council to address the management of the Quinault Indian Reservation's shorelines including marine, river, and lake systems. This document presents the framework for developing and implementing a system of shoreline protection from anthropogenic impacts such as riparian zone encroachment, infrastructure development, housing developments, vegetation management, and other factors.

The following assessment outlines the effort by the Quinault Indian Nation to address the Quinault Indian Reservation's shorelines in three segments:

1. Marine Shorelines
2. River Shorelines
3. Lake Shorelines

Although these three classifications of shorelines are highly related, they are addressed separately through unified planning efforts. This report launches into all three components of the Quinault Indian Nation's Shoreline Management Planning Framework.

The goal of this Quinault Indian Nation Shoreline Management Plan (QINSMP) is to protect the natural development of Quinault Indian Reservation's shorelines with respect to human health, wildlife habitat proliferation, sustainable natural ecosystem development, environmental processes, and human benefits.

The QINSMP applies to:

- all marine shorelines of the QIR;
- all streams and river shorelines flowing through or from the QIR;
- Lake Quinault shorelines;
- Upland areas called "riparian protection zones" landward from the edge of these waters.

Chapter 2. Standards of Planning and Administration

It is the goal of the Nation that all surface waters of the QIR be maintained to preserve and enhance the structure and function of indigenous or intentionally introduced aquatic and wildlife communities. Planning efforts are desired to restore and maintain the chemical, physical, and biological integrity of the waters of the Quinault Indian Reservation (QIR) to preserve and enhance the Reservation environment as the permanent homeland of the people of the Quinault Indian Nation (QIN) and to ensure the rights reserved by QIN in the 1855 Treaty of Olympia with the United States government. No person may cause the introduction of pollution or contamination substances to surface waters, whether via point source or nonpoint source. The degradation of aquatic habitat shall extend from the quality of water to the impacts to shorelines including the near-shore soil impacts and the riparian vegetation density and composition.

The shorelines component of this planning effort focuses directly on the condition of the shorelines as they have responded to:

1) Anthropogenic influences such as;
    a) home building,
    b) road construction,
    c) timber harvesting, and
    d) mining activities.
2) Geotectonic & climate change influences, such as;
    a) Glacial inundation during the last ice age,
    b) Isostatic rebound following the melting of the glaciers,
    c) Cascadia Subduction Zone tectonic impacts to shorelines
        i) Marine shoreline tectonically influenced geology of coastal structures,
        ii) Fault line interactions to the riparian zones,
        iii) River gradient alterations owing to changes in geostatic rebound

2.1. Baseline Assessments

In order to ascertain the past situation, current condition, and desired future conditions of the shorelines of the QIR, the QIN will direct analyses to determine the condition of all shorelines of the QIR. These assessments will be conducted in sequence to determine each component. When completed individually, the three segments will be unified into a "Schema Document" designed to bring them all together into a unified planning framework. The three components of the analysis process will include:

- all marine shorelines;
- all streams and river shorelines
- Lake Quinault shorelines;

Each component of the SMP will utilize appropriate science, technologies, and practical experience. These phases of the SMP development will focus on determining the past situation (historic conditions), current condition, and to develop the desired future condition of the shorelines.

One of the first documents to provide a context of global climate change and expected results on the QIR is a document prepared while administering the first phase of the SMP for Marine Shorelines: "**Relative Sea Level Change Along Quinault Indian Reservation Marine Coastlines**". This document provides several insights concerning historic situations, current conditions, and expected changes to the

shorelines of the QIR across all phases of the SMP framework. This document should be consulted in the administration of all shoreline phases and it is integrated into this planning framework by reference.

2.1.1. Marine Shorelines

It is anticipated that the development of the marine shorelines management plan will take into account the geologic realities of the QIR marine coastlines in respect to the Olympic Peninsula and expected changes to the global and regional climate from climate changes. The QIR marine shorelines, near and distant, represent significant cultural, sustenance, sanctuary, protection, and passage corridors for QIN people.

The marine shorelines management plan will identify sensitive habitat areas based on geologically fragile sites, unique wildlife habitat needs, salmon passage, and QIN uses.

2.1.2. River Shorelines

Rivers of the QIR are influenced by the land management practices on the QIR and on lands adjacent to the QIR where surface waters enter the QIR (upstream lands) and where subsurface waters flow (hyporheic flow) into the QIR. Based on this, the river shoreline management plan will extend analyses to include all watershed basins flowing through the QIR. These analyses will develop 'baseline' assessments of expected analyte levels and physical site contributions significant to native salmon species spawning within the QIR or passing through the QIR.

While conducting this analysis by watershed basin, the efforts will assess the potential impacts from land management ranging from forest management to village/urban expansion. The river shorelines management plan will focus on practices to identify and protect sensitive habitat areas based on geologically sensitive sites, unique wildlife habitat needs, and salmon passage.

2.1.3. Lake Shorelines Management Plan

The major lake of significance on the QIR is Lake Quinault. The QIR lake shorelines management plan will be developed within a similar approach to the river shoreline management plan. It is anticipated that lake shorelines will face increased sensitivity to site degradation, soil compaction, pollutants, infrastructure development, and respond to hyporheic flow mechanisms. The QIR lake shoreline management plan will provide an assessment of sensitive sites considering historical uses (pre-European settlement), current uses in respect to salmon species, and how to attain desired future conditions.

The QIR lake shoreline management plan will not be a "lake management plan", instead it will focus on the shorelines of the lake as they impact the lake waters. This plan will concentrate on the geologic processes that formed the lake, such as the glacier that flowed out of the Quinault Valley forming a piedmont glacier which graded most of the land that was to become the Quinault River. This glacier was also responsible for the formation of Lake Quinault.

Chapter 3. Codification to Ensure Desired Future Conditions

The attainment of desired future conditions of QIR shorelines' status may require the implementation of regulatory policies administered by the QIN. Some of these are advisory by nature, while others create a system of "compel and penalize" to assure compliance. The QIR Forest Management Plan is an example of a land management regulatory document in the respect that it defines a riparian zone where timber harvesting is not allowed and where road building is highly regulated.

A regulatory policy is a legal provision that creates, limits, or constrains a right, creates or limits a duty, or allocates a responsibility. Regulation can take many forms and includes legal restrictions promulgated by a government authority such as the QIN Business Council. One can consider regulation as actions of conduct imposing sanctions, such as a fine, to the extent permitted by law.

To the extent practicable, the identification of QIR shoreline sensitive sites will be identified for the reason of sensitivity accompanied by recommendations of how to reduce or eliminate negative anthropogenic impacts to the shorelines. Some of these activities may be directly associated with a sensitive shoreline site, such as structure or road built along marine shoreline cliffs with unstable soils prone to failure. Another example may include a remote activity such as a commercial site activity that causes surface waters to be concentrated into a wastewater disposal outlet that redirects the flow of water into a stream.

The recommendations for codifying the regulatory policies of the shoreline management plans will be proposed to the QIN Business Council where they can be considered, made public, debated, and ultimately decided on for possible inclusion as a regulatory framework. Regulatory policies for QIR shoreline management protection will be additive and combine to create a holistic and interacted framework.

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