

Lummi Administrative Regulation
Wetland Management Regulations



Lummi Indian Business Council
Natural Resources Department
Water Resources Division

Adopted by the Lummi Natural Resources Commission
(Insert Date)

Approved by the Lummi Indian Business Council
(Insert Date)

Table of Contents

17 LAR 06.010	Introduction.....	1
17 LAR 06.020	Definitions.....	1
17 LAR 06.030	Wetland Rating and Assessment Methodology	2
17 LAR 06.040	General Wetland Mitigation Principles	2
17 LAR 06.050	Elements of a Wetland Mitigation Plan.....	3
17 LAR 06.060	Wetland Mitigation Ratios.....	3
17 LAR 06.070	Wetland Mitigation Plan Checklist.....	6

17 LAR 06.010 Introduction

- (a) The purpose of this administrative regulation is to provide further guidance on wetland management to achieve the goal of “no net loss” of wetland functions, value, or acreage identified in the Lummi Code of Laws (LCL) 17.06.
- (b) Pursuant to LCL 17.06, any individual or entity that conducts a regulated activity that has an unavoidable impact on wetlands or their buffers must develop and implement an enhancement mitigation plan.
- (c) Pursuant to LCL 17.06.025, the Water Resources Manager is responsible for review and approval of all enhancement/mitigation plans prior to land disturbing activities that impact wetlands or their buffers.
- (d) These regulations apply to all lands on the Lummi Indian Reservation and any other lands that are owed by the Nation or held in trust for the Nation by the United States throughout the usual and accustomed grounds and stations and Traditional Areas of the Lummi Nation.

17 LAR 06.020 Definitions

In addition to the definitions in LCL Title 17, the following definitions are intended to facilitate the use of these regulations:

“Compensatory mitigation” is the final stage of the mitigation sequence after all practicable alternatives to avoid or minimize impacts to wetlands or their buffers have been utilized. Unavoidable impacts to wetland functions are offset (i.e., compensated for) through creation (establishment), restoration (re-establishment, rehabilitation), enhancement of other wetlands, or preservation of existing wetlands.

“Enhancement” is the improvement of existing degraded or naturally impaired wetlands or their buffers to increase functions and/or provide functions of higher quality. Activities could include planting vegetation, controlling non-native or invasive species, modifying site elevation, or the proportion of open water to influence hydroperiods. Enhancement results in an increase in wetland function, but does not result in an increase in wetland acreage.

“Establishment (creation)” means modifications to the physical, chemical, or biological characteristics of a site to develop wetlands on an existing upland or deepwater site, where a wetland did not previously exist. Establishment/creation results in an increase in wetland acreage and function.

“Practicable” means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

“Preservation” means to provide permanent protection to wetlands through the implementation of appropriate legal and physical mechanisms. This includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. Preservation does not result in an increase in wetland acres, but may result in an increase in functions over the long term.

“Re-establishment” means modifications to the physical, chemical, or biological characteristics of a site to return natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches, or breaking sea walls, levees, or drain tiles. Re-establishment results in an increase in wetland acreage and function.

“Rehabilitation” means modifications to the physical, chemical, or biological characteristics of a site to restore natural or historic functions and processes of a degraded wetland. Activities could involve breaching a dike to reconnect wetlands to a floodplain, restoring tidal influence to a wetland, or breaking drain tiles and plugging drainage ditches. Rehabilitation results in an increase in wetland function but does not result in an increase in wetland acreage.

17 LAR 06.030 Wetland Rating and Assessment Methodology

Except where terms of the following wetland rating system and function assessment methodology are in conflict with specific terms of LCL Title 17, the following technical documents are hereby adopted for conducting wetland rating and function assessments.

- (a) Washington State Wetland Rating System for Western Washington-Revised, 2004 Edition published by the Washington State Department of Ecology, together with supplements and amendments thereto.
- (b) Methods for Assessing Wetland Functions, Volume 1: Riverine and Depressional Wetlands in the Lowlands of Western Washington, 1999 Edition published by the Washington State Department of Ecology, together with supplements and amendments thereto.

17 LAR 06.040 General Wetland Mitigation Principles

- (a) An applicant seeking a permit pursuant to LCL 17.06.020 must perform sequential mitigation for projects that will impact wetlands or their buffers. The following are the steps in the mitigation sequence:
 - (1) Avoid – Adverse impacts are to be avoided to the maximum extent practicable and no discharge shall be permitted if there is a practicable alternative which would have a less adverse impact.
 - (2) Minimize – Unavoidable adverse impacts shall be minimized to the maximum extent practicable by limiting the degree or magnitude of the action, taking affirmative steps to avoid or reduce impacts, or by using appropriate technology.

- (3) Compensate – Appropriate and practicable compensatory mitigation is required for any remaining unavoidable adverse impacts.
- (b) The applicant must determine the amount of unavoidable impacts and propose compensation for lost or degraded acreage and/or function of wetlands or their buffers.
- (c) If compensatory mitigation is required, a mitigation plan must be developed and submitted to the Water Resources Manager for approval.

17 LAR 06.050 Elements of a Wetland Mitigation Plan

- (a) A Wetland Mitigation Plan must:
 - (1) Describe the site and the nature of the proposed activities (i.e., acreage of wetlands and functions lost or degraded including a map of the disturbed wetland site and the mitigation site(s)).
 - (2) Describe the goals, objectives, and performance standards for the wetland mitigation project. The goals should identify what the compensation project is trying to accomplish, the mitigation objectives, the steps to be taken to accomplish the goals, and the performance standards that will be used as the measurable indicators to determine if the objectives have been achieved.
 - (3) Provide details of how the wetland compensation project will be accomplished including a description of the proposed mitigation site and plans that show what actions will be taken to compensate for unavoidable wetland losses.
 - (4) Describe the rationale for the mitigation site selection.
 - (5) Describe the monitoring plan that will be implemented to assess progress toward the mitigation goals and objectives.
 - (6) Describe the maintenance, inspection, and monitoring schedule and procedures to ensure all performance standards are achieved.
 - (7) Describe the contingency plan in case the actions undertaken for the mitigation fail or only partially succeed.
 - (8) Provide documentation of the long-term protection to ensure that the potential risks of mitigation failure are minimized.
- (b) Pursuant to LCL 17.06.070, buffers are a required element of compensatory wetland mitigation.

17 LAR 06.060 Wetland Mitigation Ratios

- (a) The wetland mitigation ratios presented in 17 LAR 06.060 (b) identify requirements for wetland compensation. These mitigation ratios together with supplements and amendments thereto are adopted from Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance, 2006 Edition published by the Washington State Department of Ecology, U.S. Army Corps of Engineers, and U.S. Environmental Protection Agency.
- (1) The ratios represent a compensatory mitigation project that is constructed concurrent with wetland impacts. If mitigation is constructed a year or more after the wetland impacts, the ratios will be increased due to added temporal loss.
 - (2) The ratios are based on the assumption that the category and hydrogeomorphic (HGM) class or subclass of the compensation wetland and impacted wetland are the same (i.e., impacts to a Category II riverine wetland are compensated by creating, restoring, or enhancing a Category II riverine wetland). If the HGM class or subclass of the compensation wetland and impacted wetland are different, the mitigation ratio will be determined on a case-by-case basis.
 - (3) If impacts are to be mitigated by using an approved and established mitigation bank, the rules and ratios applicable to the individual bank shall be used.

(b) Mitigation ratios for unavoidable wetland impacts on regulated lands.

Category and Type of Wetland Impacts	Re-establishment or Creation	Rehabilitation Only	Re-establishment or Creation (R/C) and Rehabilitation (RH) ^a	Re-establishment or Creation (R/C) and Enhancement (E) ^a	Enhancement Only
All Category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 RC and 2:1 RH	1:1 R/C and 4:1 E	8:1
All Category II Estuarine	Case-by-case	4:1 Rehabilitation of an estuarine wetland	Case-by-case	Case-by-case	Case-by-case
Category II Interdunal	2:1 Compensation must be interdunal wetland	4:1 Compensation must be interdunal wetland	1:1 R/C and 2:1 RH Compensation must be interdunal wetland	Not considered an option	Not considered an option
All other Category II	3:1	6:1	1:1R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1R/C and 20:1 E	24:1
Category I based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Natural Heritage Site	Not considered possible	6:1 Rehabilitation of a Natural Heritage Site	R/C Not considered possible	R/C Not considered possible	Case-by-case
Category I Coastal Lagoon	Not considered possible	6:1 Rehabilitation of a coastal lagoon	R/C Not considered possible	R/C Not considered possible	Case-by-case
Category I Bog	Not considered possible	6:1 Rehabilitation of a bog	R/C Not considered possible	R/C Not considered possible	Case-by-case
Category I Estuarine	Case-by-case	6:1 Rehabilitation of an estuarine wetland	Case-by-case	Case-by-case	Case-by-case

- a. These ratios are based on the assumption that the implemented rehabilitation or enhancement action represents the average degree of improvement possible for the site. Proposals to implement more effective rehabilitation or enhancement action may result in a lower ratio, while less effective action may result in a higher ratio. The distinction between rehabilitation and enhancement is not clear-cut. Instead, rehabilitation and enhancement actions span a continuum. Proposals that fall within the gray area between rehabilitation and enhancement will result in a ratio that lies between the ratios for rehabilitation and the ratios for enhancement.
- b. Due to the dynamic nature of interdunal systems, enhancement is not considered an ecologically appropriate action.
- c. Natural Heritage sites, coastal lagoons, and bogs are considered irreplaceable wetlands because they perform some function that cannot be replaced through compensatory mitigation. Impacts to such wetlands would therefore result in a net loss of some functions no matter what kind of compensation is proposed.

(c) Mitigation ratios for preservation

- (1) Preservation of existing wetlands shall be acceptable as compensation in combination with other types of compensation to form a mitigation package for wetland losses and degradation. Accepted sites for preservation include those that:
 - (A) Are important due to their landscape position.
 - (B) Are rare or limited wetland types.
 - (C) Provide high levels of functions.
- (2) Ratios for preservation in combination with other forms of mitigation will range from 10:1 to 20:1.
- (3) The Water Resources Manager will approve enhancement/mitigation plans including preservation ratios on a case-by-case basis.

(d) Uplands used as compensation

- (1) Uplands may be used as a part of a compensation plan in certain scenarios approved on a case-by case basis by the Water Resources Manager. Approval for using upland area will be granted after a minimum of 1:1 replacement of wetland acreage is provided.
- (2) The ratio used for uplands that are part of a compensation package could range from 10:1 to 20:1 and will be determined based on the following criteria:
 - (A) Degree to which the upland provides connectivity through corridors or adjacency to other habitat areas;
 - (B) Quality of the upland area;
 - (C) Ability to increase the performance of aquatic resource functions; and
 - (D) Ability to provide additional ecological functions.

17 LAR 06.070 Wetland Mitigation Plan Checklist

- (a) A wetland mitigation plan checklist will be used by the Water Resources Manager or his/her designee to evaluate a wetland mitigation plan.

(b) Wetland Mitigation Plan Checklist

Wetland Mitigation Plan Element	Quality of Information	Need Revision?	Comments/Observations
Mitigation Goals and Objectives			
<i>Describe functions reasonably expected to decrease at impact site</i>	C P I NA	Y N	
<i>Describe functions reasonably expected to increase at a mitigation site</i>	C P I NA	Y N	
<i>Describe overall watershed improvements reasonably expected to be increased</i>	C P I NA	Y N	
Baseline Information for Impact and Proposed Mitigation Sites			
<i>Provide data on physical attributes of both sites (soils, vegetation, and hydrology)</i>	C P I NA	Y N	
<i>Describe historic and existing land uses and resources impacted at both sites</i>	C P I NA	Y N	
<i>Describe reference function assessment site attributes for each site if available</i>	C P I NA	Y N	
Mitigation Site Selection and Justification			
<i>Describe the process of selecting a proposed mitigation site</i>	C P I NA	Y N	
<i>Describe the likelihood of success and future land use compatibility</i>	C P I NA	Y N	
Mitigation Work Plan			
<i>Location</i>	C P I NA	Y N	
<i>Construction Plan</i>	C P I NA	Y N	
<i>Describe planned hydrology, vegetation, soils, buffers, and other characteristics of the mitigation wetland</i>	C P I NA	Y N	
Performance Standards			
<i>Identify success criteria</i>	C P I NA	Y N	
<i>Compare function lost and gained at impact and mitigation sites</i>	C P I NA	Y N	
<i>Describe changes to soil, vegetation, and hydrology parameters</i>	C P I NA	Y N	
Site Protection and Maintenance			
<i>List of parties and responsibilities</i>	C P I NA	Y N	
<i>Provide evidence of legal protective measures</i>	C P I NA	Y N	
<i>Maintenance plan and schedule</i>	C P I NA	Y N	
Monitoring Plan			
<i>Provide monitoring schedule, identify party (ies), and responsibilities</i>	C P I NA	Y N	
<i>Specify data to be collected, including assessment tools and methodologies</i>	C P I NA	Y N	
Adaptive Management Plan			
<i>Identify party (ies) and responsibilities</i>	C P I NA	Y N	
<i>Remedial measures (management plans)</i>	C P I NA	Y N	

C=Complete; P=Partially; Complete; I=Incomplete; NA= Not Applicable; Y=Yes; N=No

Review Completed by: _____

Review Completed on: _____

Title/Qualification of Reviewer: _____